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ABSTRACT

The 1968-69 evaluation of Kentucky's Rural Child Care Project had 5 major objectives: to assess the relationship between a child's attendance in a Child Development Center and his subsequent intellectual performance and academic achievement in elementary school; to evaluate the impact of changes in the Child Development Program itself on participants' later academic achievement; to ascertain the relationship between familial values and achievement behavior in former project children; to continue assessment of the effects of combined homemaking and child development services on parents of children enrolled in the project; and to ascertain the impact of the project of the elementary schools of participating counties. Findings relating to the 8 hypotheses tested included the following: (a) that, during 3 years of public school, scores of 23 former project children showed a decline on the Stanford-Binet Intelligence Scale; (b) that scores on the California Achievement Test of former project children in grades 2 and 3 did not differ from their matched nonproject controls; (c) that there was generally no difference between former project parents whose children were designated under- or over-achievers in terms of value orientations; (d) that current project parents who received combined homemaking and child-development services for 6 months did not increase their level of general morale more than comparable parents receiving only child-development services; and (e) that, while 2nd- and 3rd-grade teachers reported favorable attitudes toward the project, some also believed that project teachers should be better trained and that project children should be better disciplined. (MJB)

RURAL CHILD CARE PROJECT

1968-1969 Research Evaluation

Contract No. OEO 4205

FINAL REPORT

Volume II

Hypotheses 1 - 8

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The major hypotheses investigated during 1968-1969 under an extension of OEO Contract 4205 were formulated by Miss May E. Briscoe who resigned as Research Director of the Kentucky Child Welfare Research Foundation, Inc. on August 30, 1968, in order to complete her Ph.D. at the University of Florida. Full responsibility for the implementation and modification of the 1968-1969 evaluation of the Rural Child Care Project, analyses of all data and the preparation of the final report was assumed by Dr. Judith P. Archambo when she became Research Director on September 1, 1969.

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ABSTRACT

The 1968-1969 evaluation of the Rural Child Care Project had five major objectives. They were: (a) to assess the relationship between a child's attendance in a Project center and his subsequent intellectual performance and academic achievement in elementary school; (b) to evaluate the impact of changes in the child development program itself on participants' later academic achievement; (c) to ascertain the relationship between familial values and achievement behavior in former Project children; (d) to continue the assessment of the effects of combined homemaking and child development services on parents of children enrolled in the Project; and (e) to ascertain the impact of the Project in the elementary schools of participating counties.

The major findings of this evaluation were: (a) Former Project children who were functioning within the normal range of intelligence while enrolled in a Project center showed different patterns of intellectual change related to whether they were promoted at the end of first and second grades. Project children currently enrolled in second and third grades did not differ from their matched non-Project controls on the California Achievement Test (CAT). First grade former Project participants scored higher on the CAT Reading subtest in those schools having strong first grade Title I programs in reading, language and arithmetic. There was no difference in intellectual or achievement functioning over a three year period between children of families who had cooperated or refused to cooperate with the Project. (b) Children who entered the Project after 1967 (when it became a Head Start program) scored higher on CAT Reading Achievement than children who attended Project centers prior to 1967. (c) There was generally no difference between former Project parents whose children were designated as "over" or "under" achievers in their value orientations. The few obtained differences favored parents of "under" achievers, contrary to prediction. (d) Current Project parents who received combined homemaking and child development services over a six month period did not increase their level of general morale more than comparable parents receiving only child development services. (e) Teachers of first and second grade former Project children tended to evaluate them more favorably in terms of their academic and social skills than their disadvantaged non-Project classmates. While these teachers reported positive attitudes toward the Project, some also believed that Project teachers need more training, and that Project children should be more disciplined. Teachers reporting positive changes in curriculum and teaching practices since 1967 did not attribute them solely to the influence of the Project.

PROBLEM

At the present time, our knowledge of the after effects of preschool Head Start programs on participants is at best fragmentary, and information concerning the long-range effects of such programs is for all practical purposes nonexistent. There is, in particular, need for follow-up investigations of the effects of preschool Head Start programs on children in disadvantaged rural areas since the few follow-up studies that have been reported to date appear to have focused almost exclusively on children in urban areas. Indeed, the inconclusive nature of the results of such studies (see Literature Review) itself points to a need for further exploration of this area. Secondly, in view of the fact that Project Head Start was not implemented until 1965, it is not surprising that to date there has been no follow-up study of former participants with three or more years of elementary school experience. More unexpected, however, is the paucity of research concerned with the long-range effects of preschool experience in general. Clearly, there is a real need for longitudinal studies in this area. Third, the inconclusive and often inconsistent nature of the findings reported for the few follow-up studies which have been conducted leads one to suspect that there are important variables which have not been controlled. To illustrate, it may be important to consider the "educational climate" of the home in follow-up studies of academic achievement among disadvantaged children (Dyer, 1965). If, for example, the effect on the child of Head Start participation varies as a function of the educational climate of his home, a study which failed to manipulate or control for the educational climate of the home might result in any one of a number of mutually incompatible findings ("no significant effect of Head Start participation" vs. "positive effect of participation" vs. "negative effect or deterioration following participation") depending on the homogeneity of the subject sample on the "educational climate" dimension. Preliminary evidence suggests that parental values, which would seem to be a good indicator of the educational climate of the home, may be a particularly important determinant of children's achievement behavior (Strodtbeck, 1959) although to date no attempt has been made to demonstrate such a relationship among the disadvantaged.

Aside from the need for additional follow-up studies in which important variables are carefully delineated and controlled, at least three other problem areas would appear to merit extensive investigation. In the first place, there is need for evaluation of the extent to which improvements made in Head Start programs are reflected in corresponding improvements in relevant behaviors of program participants. It would appear that this problem area is yet to be investigated even though substantive program changes (e.g., the reduction of the pupil-per-teacher ratio; the introduction of a volunteer system, etc.) have been made in the years since 1965. Secondly, although it has been suggested that the implementation of the Head Start program might be promotive of gradual

improvements in public elementary school curricula and that, in addition, elementary school teachers' restrictive attitudes might be altered as a function of their exposure to former Head Start participants (Carleton, 1966), the investigators are not aware of any studies which are directly relevant to these assumptions. A final question of some importance and which has yet to be investigated concerns the extent to which parents who receive supportive services (e.g., homemaking or caseworker services) under the auspices of a Head Start program show an improvement in their morale (i.e., their general outlook on life) following the initiation of such services.

The 1968-1969 research evaluation proposed for the Rural Child Care Project represents an attempt to supply needed information in the four major problem areas outlined above. The Project was originally funded by the Office of Economic Opportunity in March, 1965 to provide year-round day care services to disadvantaged children of preschool age in seven Appalachian counties of eastern Kentucky. In 1968-1969 the program component of the Project operated twenty-three Child Development Centers in the following ten counties, which are all located in the Appalachian region of eastern Kentucky: Elliott, Floyd, Harlan, Knott, Lee, Letcher, Magoffin, Morgan, Owsley and Wolfe counties. Supportive services in the form of either Homemaking or Case Aide services are also offered through the Project to families who are deemed to be in need of support and whose children are enrolled in the Child Development Program. Since the Child Development Program has been in operation continuously since 1965, a substantial number of the children enrolled in grades one, two and three in Project county elementary schools during the 1968-1969 school year were Project participants.

LITERATURE REVIEW

The findings concerning the effect of preschool participation on subsequent intellectual and academic functioning of culturally disadvantaged children reported in the literature have varied. Some investigators (Brazziel, 1967; Eisenberg, Undated Report; Hyman and Sill, 1965; Office of Economic Opportunity Head Start Office, 1966; Office of Economic Opportunity Public Affairs Office, 1966; Osborn, 1967; Pierce-Jones, 1966) have reported preliminary findings which indicated that over an eight-week period children who participated in a preschool Head Start program made significant gains on tests of mental ability and attributes related to subsequent educational success. A recent study (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield, and York, 1966) compared a nationwide sample of 4,007 children, stratified by race, who had attended Head Start during the summer of 1965 prior to their entrance to first grade with a control group of 1,711 non-participant first graders in the same schools as well as with a second control group of 5,614 non-participant first graders in communities where Head Start was not available. In general the investigators found that at entrance to first grade, former Head Start participants of a given race scored lower on tests of verbal and of nonverbal reasoning than did non-participants. However, there is reason to believe that the Head Start participants would have scored considerably lower on such tests than the control subjects prior to the Head Start experience. Unfortunately no data are presented to either substantiate or reject this hypothesis.

There are few studies reported which attempt to assess the persistence of gains in intellectual functioning of children with Head Start preschool experience as they advance in elementary school.[1] Wolff and Stein (1967) found no significant difference in actual learning achievement between 168 former Head Start participants and a control group of 383 non-participants after six months in public school kindergartens. Osborn (1967) reviewed the preliminary findings of one study in which the investigator found no significant difference between a group of Head Start participants and a group of non-participants on a test of oral language during first grade, but in which a significant difference was found between the two groups during second grade. Schwertfeger and Weikart (1967) found that the initial Stanford-Binet I.Q. gains which had been made by children who had participated in a one-year preschool program at Ypsilanti, Michigan had disappeared by the time the children had finished

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[1]Follow-up studies of the effects of participation in preschool programs other than Head Start are also few in number. In one such study, the effects of a two-year preschool program for sixty disadvantaged children were assessed after a one-year follow-up period. (Blatt and Garfunkel, 1967) The analysis of data on repeated measures of cognitive, noncognitive, and "environmental" factors led the investigators to conclude that there were no significant differences between the experimental and control groups at the end of first grade.

kindergarten. Moreover, there was no evidence of any reestablishment of I.Q. gains when the children were tested again at the end of the first and at the end of the second grades. However, the investigators did find a significant difference between the preschool participants and their non-participant controls on the California Achievement Tests which favored the preschool group. These tests were administered at the completion of the second grade as well as at the completion of the first grade.

In summary, the investigations which to date have attempted to assess both the short-term and long-run effects of participation in preschool programs do not point to any consistent conclusions, at least insofar as I.Q. gains are concerned. Indeed, because of the preliminary nature of those investigations which have reported significant gains in I.Q. following participation in Head Start programs and, in addition, because of the failure of demonstrated gains to persist during follow-up, the question has been raised (Kraft, 1966) as to whether those gains which have been detected might in fact have been due to factors other than the Head Start experience per se (e.g., developmental processes). Waller and Conners (1966), however, have suggested that specific instructional attempts must be made in formal schooling to maintain the achievement realized from the Head Start program.

Instead of focusing program evaluation solely on gains in intellectual performance, some investigators (Wolff and Stein, 1967) have also studied the effects of Head Start on the participant's subsequent adjustment to public school. Siedel, Barkley and Stith (1967) found significant gains on a before-after measure of motivation and adjustment to the school situation over an eight-week period for a sample of 115 participants in summer Head Start programs in North Carolina. Coleman et al. (1966) observed differences between Head Start participants and non-participants in educational interest and motivation as measured by teacher ratings of children at entrance to first grade. The suggestion was made by these investigators that this heightened educational motivation would not be translated into skills which could be reflected in other performance scores until the children had been exposed to school for several years.

Other investigators have referred to the secondary effects of the preschool experience on the child's parents and teachers. From anecdotal evidence, Osborn (1967) suggested that there were attitude changes on the part of parents and teachers toward education, and in particular toward the role of the parent in the educational process, as a function of the child's Head Start participation. Also from anecdotal premises Carleton (1966) suggested that changes in first and second grade education might accrue from the presence of Head Start participants in the classroom. The Project Head Start Research and Evaluation Summary, 1965-1967, tells of one study which found that when a class consisted of more than fifty per cent Head Start "graduates", the teacher could present material more rapidly than when the class was composed of only a few or no Head Start participants. Wolff (1967) stated that kindergarten teachers who were interviewed unanimously agreed that an enriched curriculum was necessary as a result of having a large proportion of Head Start children in their classes.

The disparity in findings of follow-up studies of the persistence of gains in intellectual functioning and attainment leads one to suspect that there are important variables operating which have not been measured or controlled in the studies reported in the literature. Blatt and Garfunkel (1967) found a relatively high correlation between a measure of family adequacy and average school performance of siblings, from which they inferred that school failure was family-linked and thus should be treated through the family. In a study of sixty fourth graders in Trinidad, Dyer (1965) found that the "educational environment" of the home was more closely related than intelligence or other social background variables to school achievement (r=.78). Dave (1963) indicated that parental behavior, rather than parental status, is the determiner of academic performance. In a study to learn the effects of an eight-week summer Head Start program on the achievement motive of eighty-six Negro and Mexican-American children, Espinosa (1968) found that both ethnic groups made gains in achievement motive. The Head Start reinforcement practices used were more systematic and structured than the reinforcement practices used by lower class parents. Because the type of reinforcement received is associated with the development of the achievement motive, he concluded that the Head Start experience was apparently responsible for the change. Finally the results of an intensive investigation of adolescent boys conducted in New Haven (Strodtbeck, 1959) suggest that the extent to which an individual realizes his potential for achievement may be determined largely by his value orientation which, in turn, is related to the value orientation of his father.

OBJECTIVES

The 1968-1969 research evaluation of the Rural Child Care Project had five major objectives. These were (1) to assess the relationship between a child's former attendance in a Child Development Center and his subsequent intellectual performance and academic achievement in elementary school; (2) to evaluate the impact of changes in the Child Development Program itself on participants' subsequent academic achievement; (3) to ascertain the relationship between familial values and achievement behavior in former Project children; (4) to continue the assessment of the effects of combined homemaking and day care services on families of children who have been exposed to the Child Development Program; and (5) to ascertain the impact of the Project in the elementary schools of participating counties.

The following hypotheses concerning the effects on the child of exposure to the Child Development Program are derived in part from the preceding review of the literature and in part from informal observations and hypotheses concerning the nature of the phenomena which are the subject of this investigation. At the end of this section is a brief discussion of the rationale underlying those hypotheses whose derivation is not immediately apparent.

Hypothesis 1: Children who previously attended a Child Development Center for a minimal period of sixty (60) days and who were tested on the Stanford-Binet Intelligence Scale for the first time while enrolled in a Center and for the second and third times respectively while enrolled in the first and second grades will show a gain in their performance on the Stanford-Binet by the time they have had three years of formal schooling. This gain will be relative both to their performance at the time of the second and to their performance at the time of the third administrations of the test.

Hypothesis 2: Children who previously attended a Child Development Center for a minimal period of sixty (60) days and who will enter third grade on schedule in September, 1968 will show a significantly greater gain in their performance on the Stanford-Binet Intelligence Scale than a comparable group of former Project children who will be one grade-placement below the norm in September, 1968, either because they were retained in the first or in the second grade. This gain will be most pronounced among children whose Stanford-Binet I.Q. initially was below 80.

Hypothesis 3a: Former Project participants who were given the California Achievement Tests in March, 1968 while enrolled in the first grade will, at the time of the second administration of the California Achievement Tests

in grade two, be superior in their performance to non-Project matched controls, who also were given the tests in the preceding year while enrolled in first grade.

3b: In addition, the improvement in performance on the California Achievement Tests from first to second grade will be greater for the Project participants than for the non-Project participants.

3c: Finally, the performance of Project participants who will be tested on the California Achievement Tests in second grade during March, 1969 will be superior to that of Project participants who were tested in the second grade in March, 1968.

Hypothesis 4: Former Project participants who were given the California Achievement Tests during March, 1968 while enrolled in second grade will show superiority on a test of academic achievement in third grade relative to their non-Project matched controls, who also were tested the preceding year on the California Achievement Tests.

Hypothesis 5: Children who attended a Child Development Center for a minimal period of sixty (60) days during the 1967-1968 school year and who will enter first grade during the fall of 1968 will show superiority in their performance on a standardized achievement test relative to the performance of former Project participants who were tested during the 1967-1968 school year while enrolled in first grade.

Hypothesis 6: The extent to which the disadvantaged child utilizes his capacity for achievement in the schools will be related to the basic value orientation of his parents.

6a: Parents of high achieving children (i.e., "overachievers") will endorse the belief that the world is orderly and amenable to rational mastery and that therefore a person should make plans which will control his destiny. Parents of low achieving children (i.e., "underachievers") will endorse the contrary belief.

6b: Parents of high achieving children will express agreement with the idea that a young person should be willing to leave home to make his way in life. Parents of low achieving children, however, will express disagreement with this idea.

6c: Parents of high achieving children will express a preference for individual as opposed to collective credit for work done whereas the parents of low achieving children will not.

6d: Finally, the parents of high achieving children will have higher occupational and educational expectations for their sons than will the parents of low achieving children.

Hypothesis 7: Parents newly affiliated with the Project who have received homemaking services for a minimal period of four and one-half months and whose children have attended the Child Development Centers for a minimal period of sixty (60) days during this interim will show a significantly greater improvement in their morale than will newly affiliated parents whose participation in the Project is limited to their children's participation in the Child Development Program alone. However, the latter group as well as the former is expected to exhibit some improvement.

Hypothesis 8: Elementary school teachers in Project county schools who have had a moderate degree of exposure to former Project children will be generally favorable in their attitudes toward the Project and will rate former Project children significantly higher in achievement and in eagerness to learn than a comparable group of non-Project elementary school children. In addition, in those schools having relatively high proportions of former Project children enrolled in grades one and two, the teachers will attribute improvements in the school curricula and the advent of accelerated programs--if such exist--to the impact of the Rural Child Care Project.

The purpose in testing Hypothesis 1 is to determine the existence of changes in intellectual functioning subsequent to a child's participation in the Child Development Program that become evident only after the passage of some period of time. One might speculate, for example, that during his first and even to some extent during his second year in school, the disadvantaged child's intellectual performance is adversely affected by the demands placed upon him to adjust to his new social and physical environment (i.e., the classroom milieu). This presumably would be reflected in a deterioration of his performance on an I.Q. test or in a failure to show predicted gains. By the time he has had almost three years of formal schooling, however, the child probably will have had sufficient opportunity and time to stabilize his adjustment to the school environment; consequently, he should be less distractible and more motivated to perform well on such tasks as taking I.Q. tests.

Underlying Hypothesis 2 is the assumption that the effect of participation in the Child Development Program on a child's subsequent intellectual functioning is a function of the degree of success or failure he has experienced in school. Thus the child who participates in the Child Development Program and who then experiences some degree of success in the primary grades may show a greater gain or, conversely, less deterioration in intellectual functioning than a comparable child

who, after participating in the Program, experiences failure in the primary grades. Moreover, there is some reason to believe that this effect might be more pronounced in children whose I.Q.'s initially were above 80. Presumably such children would be more apt to expect success in school and consequently would be more disturbed by failure than children whose initial level of intellectual functioning is much below average (i.e., below 80).

It has generally been assumed that participation in a Head Start preschool program will subsequently produce discernible and lasting gains in academic achievement. Hypotheses 3a and 4 were designed to test this assumption. In addition, one might expect that former Project participants would show a greater rate of gain on an academic achievement test from one year to the next than their peers who have not had the experience of participating in the Child Development Program. Hypothesis 3b was designed to test this expectation.[1] Hypotheses 3c and 5, on the other hand, were designed to assess the impact of changes in the Child Development Program itself on the subsequent academic achievement of its participants. Changes in the Program were first introduced in the 1966-1967 fiscal year in order to further enrich the environment of the Child Development Centers, and additional changes were made in the 1967-1968 fiscal year.[2] Under the assumption that a more enriched preschool environment is conducive to heightened intellectual functioning, children who most recently participated in the Program during 1965-1966 and who were tested on the California Achievement Tests in 1968 in the latter half of grade two should exhibit a lower level of achievement than children who most recently participated in the Program during 1966-1967 and who will be tested in 1969 during the latter half of grade two. (Hypothesis 3c) The additional improvements made during the 1967-1968 fiscal year should be reflected in better performance on the California Achievement Tests in grade one among the 1967-1968 Project participants (who were tested on the achievement battery in March, 1969) than was shown by the 1966-1967 Project participants whose academic achievement was measured at the grade one level during March, 1968 (Hypothesis 5).

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[1]According to Tiegs and Clark (1963), children typically show a gain in their absolute level of performance on the California Achievement Tests (Lower Primary Level) from one year to the next. Hypothesis 3b, however, asserts that the magnitude of the gain will be greater among former Project participants than among non-participants.

[2]During the 1966-1967 fiscal year the staff of the Child Development Centers received more training and on the average they had almost twice as much relevant work experience as they had had during the 1965-1966 fiscal year. In addition, the pupil per teacher ratio in the Child Development Centers was reduced and supervisory procedures were tightened. Changes made during the 1967-1968 fiscal year consisted of the implementation of a volunteer program and the reintroduction of the unit teaching method in the Child Development Centers. (The unit teaching method was first introduced in August, 1966 but it was neither emphasized nor uniformly used until December, 1967.)

The Head Start Program was founded on the assumption that the low level of intellectual functioning which is characteristic of disadvantaged children can be effectively altered by offering them a wide variety of experiences and a warm relationship with supportive adults in the context of an enriched preschool day care program. Research findings have not always borne out this assumption, however. Indeed, some investigators (Blatt and Garfunkel, 1967; Rau et al., 1967) have suggested that the problems of the disadvantaged child might be more effectively approached via intervention in his home environment. A study which was conducted in Trinidad (Dyer, 1965) found a significant and positive relationship between the academic achievement of a random sample of fourth graders and the "educational climate" of their homes. Unfortunately, no information is reported concerning the nature of the variables defining the "educational climate," and thus one is left to ponder the meaning of this term.

One of the most comprehensive investigations of familial determinants of achievement was conducted with 1,151 adolescent boys in New Haven, Connecticut (Strodtbeck, 1969). Starting with the premise that the cultural values he inherits are a major determinant of man's subsequent achievements, Strodtbeck compared the basic value orientations of two groups of boys who were differentiated with respect to the extent to which they had realized their potential for academic achievement. He found that the following values characterized boys who functioned as "overachievers"[1]: (1) "A belief that the world is orderly and amenable to rational mastery; that, therefore, a person can and should make plans which will control his destiny" (p. 186, italics omitted); (2) "A willingness to leave home to make one's way in life" (p. 186, italics omitted); and (3) "A preference for individual rather than collective credit for work done" (p. 187, italics omitted). The contrary value orientation was found to characterize the underachieving boys[1] in the sample. In addition, Strodtbeck found that, regardless of their socioeconomic status (high, middle or low) or of the ethnic group of which they were members (Italian versus Jew), the fathers of overachieving boys characteristically differed from the fathers of underachieving boys on the value dimensions of mastery and organizational versus individual credit. Thus the fathers of overachievers were characterized by

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[1]Strodtbeck (1959) classified the boys in his sample as "overachievers" or "underachievers" on the basis of a discrepancy between the boy's actual classroom performance (i.e., grades) and his expected performance. Expected performance in turn was defined in terms of the boy's performance on intelligence and achievement tests. Thus, a boy whose classroom performance fell short of his expected performance was classified as "underachiever" whereas a boy whose performance exceeded expectations was labeled an "overachiever."

a positive belief in man's ability to control his fate and a greater preference for individual rather than organizational credit for work done whereas fathers of underachievers sanctioned the contrary beliefs. Interestingly enough, no such differences were found to distinguish the mothers of the two groups of boys. Finally there was some evidence to suggest that the fathers of high achieving boys have higher educational and occupational aspirations for their sons than do the fathers of low achieving boys.

The results of Strodtbeck's study raise some interesting questions. For example, would it be possible to improve the level of intellectual attainment among disadvantaged children through a program designed to modify the value orientations of their parents? If so, how effective would such an approach be in comparison to the effectiveness of a typical Head Start program? And finally, how effective would both approaches be in combination? However, such questions presuppose a knowledge of 1) the existence of a relationship between the academic achievement of disadvantaged children and the value orientations of their parents; and 2) the nature of that relationship, if indeed there is one. So far as the present investigators are aware, no attempt has been made to replicate Strodtbeck's study in other parts of the country and, moreover, no attempt has been made to discover whether the relationship holds for disadvantaged children and their parents.[1] Hypothesis 6 and its corollaries were designed to fill this gap in our knowledge.

Project parents deemed in need of Project homemaking services are generally both more impoverished and more socially disorganized than Project parents not considered to be in need of such services. Thus one would expect morale to initially be lower among the former than among the latter group of parents. However, after supportive services have been provided to those parents considered to be in need of them for some period of time, presumably their morale will not differ significantly from that of Project parents who did not receive (or need) such services. In other words, although both groups of parents are expected to show a significant improvement in their outlook on life after their children have attended the child development centers for at least sixty (60) days, the improvement shown should be greatest among those parents who in addition received supportive services in the interim. Hypothesis 7 was designed to test this prediction.

The last hypothesis (Hypothesis 8) was designed to provide factual information on the nature of the impact of the Child Development Program on the schools in the Project area that have substantial proportions of

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[1]Although the socioeconomic status of some of the boys who participated in Strodtbeck's study is described as "low," it is doubtful whether many of these were members of the class of persons characterized as "socially disadvantaged."

former Project participants enrolled in grades one through three. Among other things, an attempt was made to assess the attitudes of teachers in these schools toward former Project children and toward the child development program itself.

At the request of the OEO Head Start Office of Research and Evaluation, several additional studies were added to those originally proposed for the 1968-1969 Rural Child Care Project evaluation. Specifically, the effects of Title I ESEA programs upon the achievement of former Project children and follow-up comparisons of children whose families had cooperated with the Project or refused to cooperate were also undertaken in addition to assessment of the foregoing hypotheses.

I. Hypotheses 1-2: Intellectual Functioning of Former Rural Child Care Project Participants. Follow-up Comparisons.

Hypothesis 1 states that,

> "Children who previously attended a Child Development Center for a minimal period of sixty (60) days and who were tested on the Stanford-Binet Intelligence Scale for the first time while enrolled in a Center and for the second and third times respectively while enrolled in the first and second grades will show a gain in their performance on the Stanford-binet by the time they have had three years of formal schooling. This gain will be relative both to their performance at the time of the second and to their performance at the time of the third administrations of the test."

Hypothesis 2 states that,

> "Children who previously attended a Child Development Center for a minimal period of sixty (60) days and who will enter third grade on schedule in September, 1968 will show a significantly greater gain in their performance on the Stanford-Binet Intelligence Scale than will a comparable group of former Project children who will be one grade-placement below the norm in September, 1968, either because they were retained in the first or in the second grade. This gain will be most pronounced among children whose Stanford-Binet I.Q. initially was above 80."

METHOD

Subjects

The target samples for the evaluation of Hypotheses 1 and 2 consisted of 38 former Project participants who were initially tested on the Stanford-Binet while still enrolled in a Child Development Center (1965-1966) and tested again on the Stanford-Binet in 1967 and 1968 during their first two years of public school (see Rural Child Care Project Final Report. 1967-1968, pp. 14-16).

During the 1968-1969 school year, 36 of the 38 children comprising the target group were tested.[1] Of the 36 available subjects, 23 had

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[1]One child who had been retained in first grade had moved from the area and was not available for testing this year. A second child, who was promoted to third grade on schedule, had also moved and was unavailable for testing.

been promoted to third grade on schedule and constitute the sample for the evaluation of Hypothesis 1. Eleven began second grade in September, 1968, because they had been retained for one year at the end of first grade, and two had not been promoted at the end of second grade (i.e., at the end of the school year 1967-1968). The 23 third grade and 13 second grade (retained) children constitute the sample for the evaluation of Hypothesis 2.

Table 1 presents a breakdown of the total sample (for Hypotheses 1 and 2) according to county, school, grade placement status, and initial Stanford-Binet I.Q. level. From this it may be seen that all but two of the 13 subjects retained in either first or second grade were enrolled in schools in Knott, Magoffin and Wolfe counties at the time of the fourth administration of the Binet, whereas the 23 members of the Grade 3 group were more evenly distributed among the seven school districts in which testing was conducted. Although all members of both groups were Caucasian, the subjects retained in Grades 1 and 2 were predominately male (n=9) while the Grade 3 group was more evenly divided among the sexes (10 males and 13 females). The average age at the time of testing for both groups was 8 years 6 months. Of the total sample, 27 had tested above 80 on their initial Stanford-Binet whereas nine scored at or below 80 on their initial Stanford-Binet. (See Table 1)

Procedure

The 36 children were tested during the first two weeks of February and during mid-March, 1969. The testing could have been accomplished in a much shorter time but numerous scheduling difficulties arose, such as schools closed due to bad weather and children absent with flu or hepatitis.

The testing site for the 1969 administration of the Stanford-Binet consisted of a room located within the child's school of enrollment or, if no room was available in the school, the nearest Project Child Development Center was used for testing. In all cases except one,[1] the testing was conducted by Mrs. Allie Hendricks, who is fully certified by the State of Kentucky to administer psychological tests and who has served since 1965 as a Stanford-Binet administrator for the Rural Child Care Project.[2] With each child tested, Mrs. Hendricks followed the standard procedures for administration and scoring of the Binet.

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[1]Mrs. Judy Karges tested one child in Elliott County who was included in both the Hypotheses 1 and 2 and the Cooperative-Uncooperative samples.

[2]Mrs. Hendricks conducted all testing in 1967-1968 but several different test administrators participated in both the 1965-1966 and 1966-1967 testing sessions.

TABLE 1: TARGET GROUP FOR STANFORD-BINET TESTING 1968-1969: SUBJECTS TESTED BY COUNTY, SCHOOL, GRADE PLACEMENT STATUS AND INITIAL I.Q. LEVEL

COUNTY	SCHOOL	INITIAL I.Q. ABOVE 80		INITIAL I.Q. 80 OR BELOW	
		Grade 2	Grade 3	Grade 2	Grade 3
Elliott	Sandy Hook	0	2	0	0
Knott	Caney	3	3	0	0
	Jones Fork	0	2	0	0
	Hindman	1	0	0	0
Lee	St. Helens	0	2	0	0
	Beattyville	0	2	0	0
	Southside	0	0	1	0
Magoffin	J. T. Arnett	0	2	1	1
	Salyersville	0	2	0	1
	Salyers	1*	0	1	0
Morgan	Ezel	0	1	0	0
Owsley	Sturgeon	1	1	0	0
	Booneville	0	1	0	1
Wolfe	Rogers	1	1	1	0
	Wolfe County	0	1	1*	0
	Red River	0	0	1	0
	TOTALS	7	20	6	3

*Child was not promoted to third grade on schedule at the end of 1967-1968 school year. All other children in the second grade were retained in the first grade during 1967-1968.

Instruments

The 1960 L-M form of the Stanford-Binet Intelligence Scale was used in the test administration.

In addition, each first and second grade teacher responsible for the decision to retain a former Project child presently in the follow-up sample was sent a checklist (devised by the Research Division

staff) entitled "Questionnaire on Reasons for Retention" (see Appendix A) during April, 1969. Information obtained from this checklist, as well as that recorded on a second form based on the checklist used for surveying Project family case history data, was used to assess the kinds of problems associated with a history of early failure in school for the thirteen retained children in the sample.

RESULTS

Hypothesis 1

It was predicted that former Rural Child Care Project children would show a gain in their performance on the Stanford-Binet Intelligence Scale by the time they had experienced three years of formal schooling. This prediction was tested by comparing performance on the fourth administration of the Binet of those former Project participants enrolled in third grade during the 1968-1969 school year (n=23) with their performance on the second and third administrations of the Binet when they were enrolled in first and second grades.

Table 2 summarizes the results of the four administrations of the Binet for the current follow-up sample. Table 3 presents difference score comparisons using the fourth administration I.Q. score as the criterion. One sample t-tests for correlated measures were performed for each of the obtained difference score means. Despite a non-significant increase in I.Q. scores between first and second administrations, these children show a significant decrease in intellectual performance from the second to fourth administration ($p < .025$). Additional t-tests, using third and second administration I.Q. scores as the criteria did not yield significant results.

Not only is Hypothesis 1 disconfirmed, but the results clearly support the opposite prediction; that is, there will be a decline in intellectual performance among former Project children after they have experienced three years of public school. It is interesting to note that this decline does not become significant until after first grade. In fact, it appears that first grade may have maintained if not enhanced the intellectual level attained by these children when they were enrolled in the Rural Child Care Project. Following first grade however, these children have shown a consistent tendency to score slightly lower with each subsequent administration of the Binet.

Hypothesis 2

It was predicted that former Project participants who were promoted on schedule to the third grade in the 1968-1969 school year would show a greater gain in intellectual performance than those children who failed to be promoted to third grade on schedule. It had been anticipated that two groups of retained children could be constituted for this evaluation - those who were held back in the first grade and those who failed to pass

the second grade. However, since only two children were retained in second grade, all retained children, regardless of the time of retention, were put into one group for purposes of analysis. It was also predicted that there would be a significant interaction between grade placement status (i.e., promoted or retained) and initial I.Q. level (i.e., above 80 or at or below 80). That is, differences in I.Q. change were expected to be greatest between promoted and retained children who had achieved an initial I.Q. score above 80.

TABLE 2: HYPOTHESIS 1: STANFORD-BINET I.Q. SCORES OF FORMER RURAL CHILD CARE PROJECT PARTICIPANTS CURRENTLY ENROLLED IN THIRD GRADE (N=23).

	First (1965-1966) (In RCCP)	Second (1967) (Grade 1)	Third (1968) (Grade 2)	Fourth (1969) (Grade 3)
Mean	92.78	95.61	92.78	91.35
SD	13.51	15.04	14.41	11.56
CA (in months)	67.04	79.57	92.70	103.96

TABLE 3: HYPOTHESIS 1: I.Q. CHANGE OVER FOUR ANNUAL ADMINISTRATIONS OF THE STANFORD-BINET INTELLIGENCE SCALE. FORMER PROJECT PARTICIPANTS CURRENTLY ENROLLED IN THIRD GRADE (N=23).

	IQ_4-IQ_1	IQ_4-IQ_3	IQ_4-IQ_2
Mean	-1.43	-1.43	-4.26*
SD	8.87	4.99	8.87

*$t_{corr.} = -2.31$, df = 22, $\rho < .025$, one-tailed test.

An analysis of covariance design based upon the linear hypothesis model[1] was used to test those predictions. Table 4 summarizes the independent variables (Initial I.Q. Level x Grade Placement Status), covariates (chronological age at testing and attendance at a child development center) and dependent variables (difference and raw I.Q. scores) associated with significant findings. The results of these analyses (which are summarized in Tables 5-8) indicate there is a significant main effect associated with grade placement status when I.Q. change from first to fourth administration is the dependent variable ($\rho < .05$) and when raw I.Q. scores at third and fourth administrations are the dependent variables ($\rho < .05$ and $< .03$). Initial I.Q. level is significant ($\rho < .001$) for first administration I.Q. scores, a finding which merely confirms the constitution of those subject groups on the basis of their first I.Q. scores.

These findings partially confirm Hypothesis 2. That is, although the net loss in I.Q. scores from first to fourth administration tends to be less for the promoted group (n=23) than for the retained group (n=13) (retained mean loss = -4.85, promoted mean loss = -1.43; t = .98, df = 34, ρ = ns), the fact that this change represents a net loss rather than a net gain is contrary to the hypothesis, as was the case with Hypothesis 1.

The promoted group did score higher than the retained group on the third and fourth Binet administrations, however (retained mean IQ_3 = 77.15, promoted mean IQ_3 = 92.78, t = 3.89, df = 34, $\rho < .005$; retained mean IQ_4 = 78.23, promoted mean IQ_4 = 91.35, t = 3.92, df = 34, $\rho < .005$). Inspection of Table 4 suggests that retained children whose initial I.Q. scores were above 80 lost the most I.Q. points between first and fourth administrations, whereas it appears that promoted children whose initial I.Q. scores were above 80 have tended to obtain the highest raw I.Q. scores at each administration. Promoted, above 80 initial I.Q. children (n=20) do differ significantly in terms of raw I.Q. scores from retained, above 80 initial I.Q. children (n=7) on each administration of the Binet except for the first one (mean IQ_2: 98.10 versus 82.57, t = 2.73, df = 25, $\rho < .01$; mean IQ_3: 95.15 versus 79.71, t = 3.01, df = 25, $\rho < .005$; mean IQ_4: 93.10 versus 82.14, t = 2.49, df = 25, $\rho < .01$). With respect to these individual raw score comparisons, the prediction is confirmed that intellectual functioning would differ most between former Project participants who had scored above 80 initially but subsequently experienced different patterns of school success.

[1]These analyses were performed at the University of Kentucky Computing Center.

TABLE 4: HYPOTHESIS 2: SUMMARY OF VARIABLES ASSOCIATED WITH SIGNIFICANT ANALYSES OF COVARIANCE INCORPORATING INITIAL I.Q. LEVEL AND GRADE PLACEMENT STATUS.

COVARIATES	INDEPENDENT VARIABLES			
	Retained, ABOVE 80 Initial I.Q.	Retained, BELOW 80 Initial I.Q.	Promoted, ABOVE 80 Initial I.Q.	Promoted, BELOW 80 Initial I.Q.
N	7	6	20	3
CA_1 (in months)	63.86	69.67	65.90	74.67
CA_3	90.71	97.00	92.15	96.33
CA_4	101.57	107.67	103.35	108.00
CDC Attendance Prior to IQ_1 (in days)	12.43	53.00	44.30	120.00
CDC Attendance Between IQ_1 and IQ_2	98.71	70.50	87.05	14.00
Total CDC Attendance	111.14	123.50	131.35	134.00

DEPENDENT VARIABLES	Mean	SD	Mean	SD	Mean	SD	Mean	SD
$IQ_4 - IQ_1$	-10.86	9.84	+2.17	6.37	-2.40	9.10	+5.00	2.65
IQ_1	93.00	9.76	71.50	6.35	95.50	12.25	74.67	3.79
IQ_3	79.71	10.77	74.17	7.91	95.15	13.93	77.00	3.61
IQ_4	82.14	9.49	73.67	5.92	93.10	11.34	79.67	3.51

TABLE 5: HYPOTHESIS 2: SUMMARY OF 2 x 2 ANALYSIS OF COVARIANCE INCORPORATING GRADE PLACEMENT STATUS AND INITIAL I.Q. LEVEL: I.Q. CHANGE BETWEEN FIRST AND FOURTH ADMINISTRATIONS OF THE STANFORD-BINET INTELLIGENCE SCALE

Source[1]	df	F	p
Grade Placement Status (GPS)	1,28	4.83	.05
Initial I.Q. Level (I)	1,28	.41	ns
GPS x I	1,28	.48	ns

[1]Adjusted for the effects of chronological age at initial administration, initial I.Q. score, and total attendance at a child development center (CDC).

TABLE 6: HYPOTHESIS 2: SUMMARY OF 2 x 2 ANALYSIS OF COVARIANCE INCORPORATING GRADE PLACEMENT STATUS AND INITIAL I.Q. LEVEL: FIRST ADMINISTRATION BINET I.Q. SCORES (1965-1966).

Source[1]	df	F	p
GPS	1,30	.60	ns
I	1,30	13.67	.001
GPS x I	1,30	.03	ns

[1]Adjusted for the effects of chronological age at testing and prior CDC attendance.

TABLE 7: HYPOTHESIS 2: SUMMARY OF 2 x 2 ANALYSIS OF COVARIANCE INCORPORATING GRADE PLACEMENT STATUS AND INITIAL I.Q. LEVEL: THIRD ADMINISTRATION I.Q. SCORES (1968).

Source[1]	df	F	p
GPS	1,30	4.65	.05
I	1,30	1.08	ns
GPS x I	1,30	2.55	ns

[1]Adjusted for the effects of chronological age at testing and total CDC attendance.

TABLE 8: HYPOTHESIS 2: SUMMARY OF 2 x 2 ANALYSIS OF COVARIANCE INCORPORATING GRADE PLACEMENT STATUS AND INITIAL I.Q. LEVEL: FOURTH ADMINISTRATION I.Q. SCORES (1969)

Source[1]	df	F	p
GPS	1,30	7.40	.03
I	1,30	1.00	ns
GPS x I	1,30	.88	ns

[1]Adjusted for the effects of chronological age at testing and total CDC attendance.

Perhaps the main reasons the expected interaction between grade placement status and initial I.Q. level was not obtained for the current follow-up evaluation[1] are that two children shifted from the promoted to retained group, both groups lost one subject each during the interim from third to fourth administration, and the number of subjects in each group, except for the promoted, above 80 initial I.Q. group (n=20), is so small as to call the reliability of these data into question. Certainly the shifting of subjects from the promoted to retained group has strengthened the overall effect of grade placement status in these analyses.

Figure 1 represents the pattern of I.Q. change for all four groups incorporated in the analyses of covariance. The findings discussed above are perhaps more apparent from this graphic representation of the data. It appears from Figure 1 that the pattern of I.Q. change may vary within groups. In order to determine if this is so, a series of one sample t-tests based upon difference scores was run incorporating those difference scores where the greatest amount of change appears to have occurred. The apparent initial gain (mean gain = +2.6 I.Q. points) from first to second administration of the promoted, above 80 initial I.Q. group is not significant. However, the loss between second and fourth administrations (mean loss = -5.00 I.Q. points) for this group is significant ($t = 2.51$, $df = 19$, $p < .05$). The overall loss in I.Q. points from first to fourth administration[2] is significant for the retained, initial I.Q. above 80 group (mean loss = -10.86, $t = 2.92$, $df = 6$, $p < .05$), whereas the gain shown between third and fourth administrations (mean gain = +2.43 I.Q. points) is not significant. The gain achieved by the retained, at or below 80 initial I.Q. group between first and second administrations (mean gain = +6.67 I.Q. points) just misses significance ($t=2.51$, $df = 5$, $p < .10$), whereas the loss between second and third administrations (mean loss = -4.00) is clearly not significant. The apparent gain between first and fourth administrations achieved by the promoted, at or below 80 initial I.Q. group (mean gain = +5.00 I.Q. points) is not significant ($t = 3.27$, $df = 2$, $p < .10$), perhaps because of the extremely small sample (n=3).

The Relationship Between Family Background Variables and Retention in First or Second Grade

It was also of interest to determine what kinds of background factors might be related to a history of non-promotion in the first and second grade for the thirteen retained children in the follow-up sample. Teachers responding to the "Questionnaire on Reasons for Retention" (see Appendix A)

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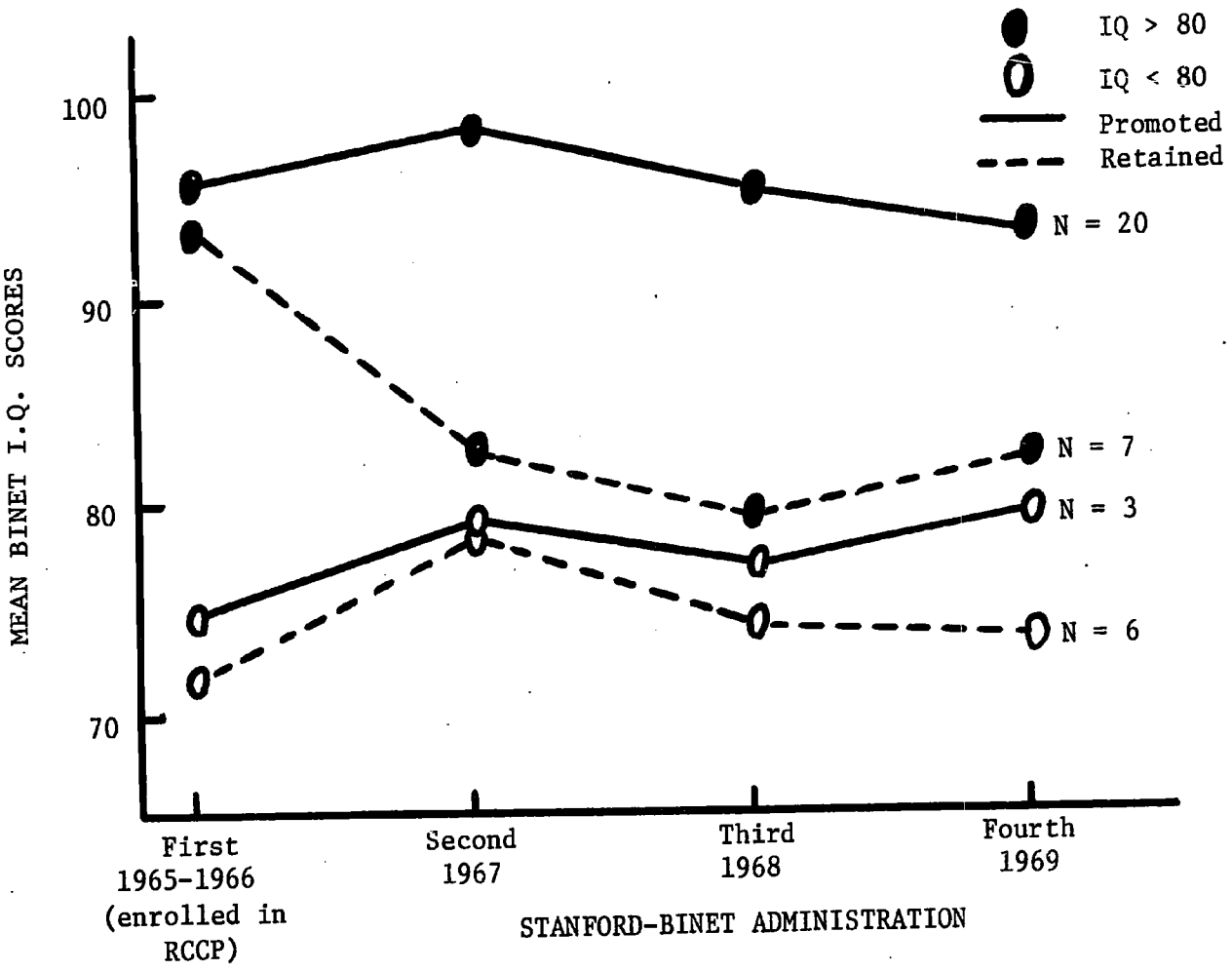
[1]A significant interaction between grade placement status and initial I.Q. level was reported for a larger sample when I.Q. change between first and second administrations was the dependent variable in the 1967-1968 evaluation Final Report (Briscoe and Archambo, 1969).

[2]Which is essentially the same as the mean loss between first and second administrations.

FIGURE 1: HYPOTHESIS 2 - I.Q. CHANGE OVER FOUR ANNUAL ADMINISTRATIONS OF THE STANFORD-BINET AS A FUNCTION OF INITIAL I.Q. LEVEL AND GRADE PLACEMENT STATUS.



indicated in all but two cases that they had retained these children for a number of reasons. The most common reasons listed were emotional immaturity, behavior problems and intellectual "slowness". In nine cases teachers reported that retention had helped the child improve in social functioning, intellectual performance, or both. However, examination of the I.Q. scores for these children did not indicate a clear relationship between teacher assessment or retention and intellectual performance over the past two years since retention. It may well be that the beneficial effects of retention are viewed by teachers as being able to adjust to the demands of the school environment, a factor which is not directly related to performance on the Binet.

An examination of Project case records kept on families of children who were subsequently retained after they entered school indicated that the most typical kind of problem noted concerned the physical health of the child and members of his family. In half of the cases a behavior problem involving either the child or a member of his family was mentioned. There were fewer instances in which the Project worker mentioned problems of social immaturity or intellectual slowness.[1] Many problems tended to be mentioned for each child.

The discrepancy between Project case history records and teacher assessment in public school is due to several factors. First, case records are not kept by Project teachers who in most cases have greater knowledge of the individual child. Also, Project personnel (who are indigenous non-professionals) in the first two years of the program were not very experienced in making any kind of long range prediction regarding a child's performance in school.

A check of examiner comments on the Binet protocols of retained children revealed that these children were consistantly characterized as having short attention spans, apparent articulation problems and noticeable anxiety about being tested.

Referral back to Figure 1 will suggest that the effects of retention, just as the reasons for it, are complex. Bearing in mind the small numbers of subjects involved in these comparisons, it is interesting to note that retained children who scored initially above 80 and retained children who scored initially at or below 80 have yielded different performance curves over the past three years with respect to their change in I.Q. scores prior to first grade (when most of them were retained) and following first grade. The former group does not appear to have benefited as much from first grade as the latter group.

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[1]There is some indication that retained children who scored over 80 on their initial Binet tended to have health problems (their own or in their family) noted most often whereas children who initially scored at or below 80 on the Binet tended to be described as immature (behaviorally, socially, emotionally).

DISCUSSION

Two findings in the present evaluation study are of interest. First, the expectation that former Project participants would show an increase in intellectual functioning after three years of public school is clearly disconfirmed. Instead, there has been an overall decline in successive I.Q. scores. Second, these data make it clear that the pattern of intellectual functioning exhibited over the past three years by children in the follow-up sample is related to their initial intellectual status while enrolled in a Project child development center and their subsequent success or failure in public school.

Several factors continue to limit the extent to which these data may be interpreted or generalized. First, there has not been a non-Project control group in any analysis. The children involved in the follow-up sample represent a small proportion of those who were initially tested (many children could not meet the attendance criteria for follow-up assessment of Project effectiveness). In addition, these children did not all receive their initial Binet at the same point in their Project experience. Therefore, it is difficult to say what effects are actually assessed by the first two administrations of the Binet. Some of the most interesting comparisons (eg. on the effects of grade placement status and initial I.Q. level) have been hampered by the small numbers of children in the comparison groups.

With these limitations in mind, several conclusions may be advanced. The present evaluation does agree with the assessment made last year (Briscoe and Archambo, 1969) that the most significant decrease in I.Q. scores has occurred for the retained group of children who initially scored above 80. Although it was suggested in last year's study that much of this decline may be attributed to statistical regression, these data also underscore the fact that the effects of the Rural Child Care Project vary in terms of certain important characteristics children bring with then to the program. These follow-up findings make it clear that the effectiveness of an early intervention program must be assessed not only in terms of the treatment variable but in terms of the type of child affected.

Indirectly these findings also indicate that the significance of first grade following Project experience varies in terms of child characteristics. That is, children who scored initially low on the Binet improved in performance during their first year in school, whereas those children who scored at a higher level while in the Project but who were subsequently held back a year in public school showed a decrease in I.Q. scores. It also appears that most children are maintaining the intellectual level attained at the end of first grade (except for those youngsters who scored higher initially and who have been regularly promoted - they have maintained their initial level).

To some extent this kind of pattern reflects statistical regression in both high and low (initial I.Q.) scoring groups. However, other factors also appear to have an influence on this pattern.

It might be argued that children who are considered normally intelligent but who have problems of health or psychosocial immaturity should be considered as "high risk" in preschool programs for the disadvantaged. That is, unless great effort is exerted with the child and his family, he can be expected to show a great decline in overall functioning once he enters public school where the chances for individual attention are greatly lessened. Conversely, it might also be argued that children who are below normal intelligence will continue to show progress but at a slower rate, providing they are given ample time to make adjustments both to the preschool program and to public school, even if this requires holding the child back a year.

It is recommended that the training of Project child development personnel focus more upon individual differences among child participants and the corresponding measures that need to be taken to insure their success in school and positive adjustment to its environment. The assumption that less attention needs to be given the "brighter" child in such programs seems rather questionable in the light of these findings.

Finally, as a means of further studying the overall pattern of intellectual change in former Project participants, it has been proposed in the next evaluation year to assess these children for a fifth and final time on the Binet. In addition to examining the results of the fifth testing in view of earlier findings, an analysis of qualitative differences in Binet performance will be undertaken.

II. Hypotheses 3 - 5: Achievement Functioning of Former Rural Child Care Project Participants: Follow-Up Comparisons of California Achievement Tests Scores

Hypothesis 3a states that,

> "Former Project participants who were given the California Achievement Tests in March, 1968 while enrolled in the first grade will, at the time of the second administration of the California Achievement Tests in grade two, be superior in their performance to non-Project matched controls, who also were given the tests in the preceding year while enrolled in first grade."

Hypothesis 3b states that,

> "In addition, the improvement in performance on the California Achievement Tests from first to second grade will be greater for the Project participants than for the non-Project participants."

Hypothesis 3c states that,

> "Finally, the performance of Project participants who will be tested on the California Achievement Tests in second grade during March, 1969 will be superior to that of Project participants who were tested in the second grade in March, 1968."

Hypothesis 4 states that,

> "Former Project participants who were given the California Achievement Tests during March, 1968 while enrolled in second grade will show superiority on a test of academic achievement in third grade relative to their non-Project matched controls, who also were tested the preceding year on the California Achievement Tests."

Hypothesis 5 states that,

> "Children who attended a Child Development Center for a minimal period of sixty (60) days during the 1967-1968 school year and who will enter first grade during the fall of 1968 will show superiority in their performance on a standardized achievement test relative to the performance of former Project participants who were tested during the 1967-1968 school year while enrolled in first grade."

METHOD

The general method for evaluating Hypotheses 3, 4 and 5 involved the administration of the California Achievement Tests (CAT), Lower and Upper Primary Levels, to samples of former Rural Child Care Project participants and other disadvantaged children selected as matched controls who were enrolled in the first, second and third grades in eight Project counties[1] at the time of testing in March, 1969. CAT Total Battery and Reading Area, Arithmetic Area and Language Area raw scores were utilized to compare the performances of former Project children with their controls and to assess the achievement attained by each successive group of Project participants over the past three years (1966-1969).

Subjects

In order to obtain the data required for the evaluation of Hypotheses 3 and 4, former Project participants and their matched controls (on the basis of sex, age, and socioeconomic status within school and county) who were tested in March, 1968, as part of the 1967-1968 Rural Child Care Project Evaluation (Briscoe and Archambo, 1969, pp. 35-37) were relocated in the fall of 1968 and scheduled for a second administration of the CAT during March, 1969.[2] It was anticipated that children to be re-tested according to the design for Hypothesis 3 would be enrolled in second grade at the time of testing, whereas those children requiring re-testing for the evaluation of Hypothesis 4 would be enrolled in third grade during the 1968-1969 school year.

It was learned, however, that in a number of instances one or both members of a given pair of subjects tested in 1968 would not be available for testing in 1969. In addition, some children, although available for testing, had not been promoted to the next highest grade in school. These factors necessitated the following decisions regarding constitution of the 1969 achievement follow-up sample: First, if one member of a given pair had moved and was unavailable for testing, the other member was not to be tested (or if tested, he would be excluded from the sample).

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[1]Follow-up achievement testing was not initiated in Harlan and Letcher counties during 1967-1968 because too few children were available. Therefore, no testing was done there in the current evaluation. No achievement data were collected for second graders in Floyd county in 1967-1968, and therefore, no third grade data were collected there in 1968-1969. All subjects in these samples were Caucasian.

[2]These subjects were also to be tested on the California Test of Mental Maturity in accordance with the design for Hypothesis 6 (see Section IV, pp. 60 - 63) during the fall of 1968, therefore it was necessary to relocate them early in the fall even though they would not be scheduled for achievement testing until the following spring.

Second, if a member of a given pair had not been promoted, he was to be administered the same level of the CAT as his promoted "match."[1]

Tables 9 and 10 present a summary of the 1969 second (n=46 pairs) and third grade (n=34 pairs) samples by county, indicating how many intact matched pairs were tested out of the number available, and noting which of those pairs were composed of children who were both promoted or which had one member retained at the previous grade level.

The totals in Table 9 do not include five second grade children who were dropped from the sample after testing because they voided all three area subtests. A total of 25 second graders and eight third graders remaining in the sample voided one or more area subtests. A summary of the number of voided area subtests by grade and area subtest is presented in Table 11 for the Hypotheses 3 and 4 samples.

TABLE 9: HYPOTHESIS 3: 1969 SECOND GRADE FORMER PROJECT PARTICIPANTS AND THEIR MATCHED, NON-PROJECT CONTROLS ADMINISTERED THE CALIFORNIA ACHIEVEMENT TESTS BY COUNTY.

	Matched Pairs Tested (n=46 pairs)		
County	Promoted-Promoted	Promoted-Retained	Total
Elliott	8 of 9	1 of 1	9 of 10
Floyd	3 of 4	2 of 3	5 of 7
Knott	4 of 7	2 of 2	6 of 9
Lee	5 of 6	1 of 1	6 of 7
Magoffin	4 of 5	1 of 1	5 of 6
Morgan	6 of 6	1 of 2	7 of 8
Owsley	5 of 6	--	5 of 6
Wolfe	3 of 3	--	3 of 3
TOTALS:	38 of 46	8 of 10	46 of 56

[1]This made a difference only in the third grade sample (Hypothesis 4) since second graders received the CAT Lower Primary Level (designed for grades 1 - 2) whereas third graders were administered the CAT Upper Primary Level (designed for grades High 2 - Low 4).

TABLE 10: HYPOTHESIS 4: 1969 THIRD GRADE FORMER PROJECT PARTICIPANTS AND THEIR MATCHED, NON-PROJECT CONTROLS ADMINISTERED THE CALIFORNIA ACHIEVEMENT TESTS BY COUNTY.

County	Matched Pairs Tested (n=34 pairs) Promoted-Promoted	Promoted-Retained	Total
Elliott	5 of 7	--	5 of 7
Floyd	(No Follow-up Testing Done 1967-1968)		
Knott	5 of 6	1 of 1	6 of 7
Lee	2 of 2	--	2 of 2
Magoffin	6 of 6	1 of 1	7 of 7
Morgan	2 of 4	--	2 of 4
Owsley	4 of 9	--	4 of 9
Wolfe	7 of 7	1 of 1	8 of 8
TOTALS:	31 of 41	3 of 3	34 of 44

TABLE 11: HYPOTHESES 3-4: SUMMARY OF VOIDED CALIFORNIA ACHIEVEMENT TESTS AREA SUBTESTS. 1969 SECOND AND THIRD GRADE FORMER PROJECT PARTICIPANTS.

Grade	CAT Area Subtest Reading	Arithmetic	Language
Second (n=25)	18	9	13
Third (n=8)	5	1	3
TOTALS[1]	23	10	16

[1]Totals for all area subtests voided exceed the total number of children since the same child may have voided more than one area subtest.

The design for Hypothesis 3c calls for an additional comparison between former Project participants tested while in second grade in 1969 and former Project participants tested in second grade during 1968. Therefore, in addition to retesting Project participants enrolled in second grade during the 1968-1969 school year, it was necessary to match as many of these children as possible (on the basis of sex, age at testing and socioeconomic status within school and county) with last year's second grade follow-up sample. Table 12 presents a breakdown by county of the 25 pairs of 1968 and 1969 former Project participant second graders who could be matched on the above criteria.

TABLE 12: HYPOTHESIS 3c: FORMER PROJECT PARTICIPANTS, 1968 AND 1969 SECOND GRADE MATCHED PAIRS, ADMINISTERED THE CALIFORNIA ACHIEVEMENT TESTS BY COUNTY.

County[1]	1968-1969 Second Grade Matched Pairs
Elliott	3
Knott	7
Magoffin	3
Morgan	4
Owsley	5
Wolfe	3
TOTAL:	25

[1]Testing was not done in Floyd county second grade in 1967-1968. No matches could be made for Lee county children.

Unlike the samples for Hypotheses 3 and 4 which had been previously tested on the CAT, the sample tested in March, 1969, for the evaluation of Hypothesis 5 was composed of former Project participants who entered first grade in the fall of 1968 and who had not been tested before on the CAT. The procedures followed in selecting this sample have been discussed in the January, 1969, Quarterly Research Progress Report.

Although the design for Hypothesis 5 specified that current first grade former Project children be compared with former Project participants who attended first grade during 1967-1968, a non-Project first

grade control group was also made available for this evaluation because of a decision to include a first grade non-Project group in the design for Hypothesis 6 (see Section IV). This control group was selected according to various criteria (sex, age, socioeconomic status) by their classroom teachers following the earlier identification of the first grade former Project sample (see the January, 1969, Quarterly Research Progress Report). Following the March, 1969, administration of the CAT to these children, final matching of pairs was determined by the Research Division staff.

Table 13 gives a breakdown according to county of the first grade sample of 49 matched pairs of Project and non-Project participants. Although 75 out of 85 available Project children were tested, only 57 control children were tested. Of these 132 children, only 49 matched pairs could be constituted. This was due mainly to the fact that within a number of schools not enough non-Project children who met the above criteria were available to serve as matches.

TABLE 13: HYPOTHESIS 5: 1969 FIRST GRADE FORMER PROJECT PARTICIPANTS AND THEIR MATCHED NON-PROJECT CONTROLS ADMINISTERED THE CALIFORNIA ACHIEVEMENT TESTS BY COUNTY.

County	1969 First Grade Matched Pairs
Elliott	8
Floyd	4
Knott	5
Lee	3
Magoffin	3
Morgan	4
Owsley	13
Wolfe	9
TOTAL:	49

In addition, three children tested had to be excluded from the Hypothesis 5 sample because they voided all three area subtests. Table 14 presents a summary of the number of area subtests voided by the 1969 first grade Project and non-Project sample.

TABLE 14: HYPOTHESIS 5: SUMMARY OF VOIDED CALIFORNIA ACHIEVEMENT TESTS AREA SUBTESTS. FORMER PROJECT PARTICIPANTS AND NON-PARTICIPANTS, FIRST GRADE, 1969.

	CAT Area Subtest		
	Reading	Arithmetic	Language
First Grade RCCP (n=34)	17	6	19
First Grade Controls (n=34)	14	6	10
TOTALS[1]:	31	12	29

[1]Totals for all area subtests voided exceed the total number of children since a child may have voided more than one area subtest.

As was previously noted, the design for Hypothesis 5 required that former Project children tested in first grade during March, 1969, be compared with former Project participants who had been tested in first grade in March, 1968. Accordingly, it was necessary to match children in the current first grade sample with children tested in March, 1968. It was determined that a total of 56 former Project participants tested as first graders in 1968 could be matched with 56 of the children tested as part of the 1969 first grade sample in terms of sex, age at testing and socioeconomic status. Table 15 gives a breakdown of this 1968-1969 first grade sample by county.

TABLE 15: HYPOTHESIS 5: FORMER PROJECT PARTICIPANTS, 1968 AND 1969 FIRST GRADE MATCHED PAIRS ADMINISTERED THE CALIFORNIA ACHIEVEMENT TESTS BY COUNTY.

County	1968-1969 First Grade RCCP Matched Pairs
Elliott	11
Floyd	8
Knott	9
Lee	5
Magoffin	5
Morgan	5
Owsley	8
Wolfe	5
TOTAL:	56

It should be noted that in the process of selecting the 1969 first grade sample, matching the current second grade sample with those tested as part of the 1967-1968 follow-up evaluation and relocating the present third grade sample, the socioeconomic status ratings assigned subjects (Project and control) by their classroom teachers were questioned for a number of reasons. First, it appeared that teachers did not use a consistent frame of reference from county to county. Second, those children rated as being "average" in socioeconomic status for their county were quite heterogenous with respect to family income, welfare status and parent occupation. A significant number of this group were receiving welfare and were below the median income level for their respective counties. (For a detailed discussion of this matter, see the January, 1969, Quarterly Research Progress Report.) In addition, a number of socioeconomic status designations assigned by teachers in 1967-1968 appeared to have changed (or been initially inaccurate) on the basis of information obtained in the fall of 1968. Therefore, in some cases, subject pairs previously considered matched on this basis no longer have the same socioeconomic status ratings. However, it remains generally true that former Project participant subject groups have more low socioeconomic than average socioeconomic status children in them, whereas in many cases their non-Project matches have higher (i.e., "average") socioeconomic ratings.

Procedure

Preliminary arrangements for administration of the California Achievement Tests were made with the eight target schools in Elliott, Floyd, Knott, Lee, Magoffin, Morgan, Owsley and Wolfe counties early in the fall of 1968, due to the necessity to determine the whereabouts of children and to schedule administration of the California Test of Mental Maturity (see Section IV). Final scheduling was completed in February, 1969 (see Quarterly Research Progress Reports of January and April, 1969, for details).

All subjects were tested in groups ranging from six to fifteen children during the school day at the school they attended. Efforts were made to include former Project participants and their matched controls in each group being tested.

In all but a few cases, testing was carried out by teams of two examiners.[1] Procedures stipulated in the CAT manual were followed.

It was noted in the 1967-1968 evaluation of the Rural Child Care Project (Briscoe and Archambo, 1969) that numerous problems were encountered in the process of administering the California Achievement Tests to the 1968 first and second grade samples. Most of these problems

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[1]Four Research Assistants and one testing consultant were required to collect these data efficiently because a number of children had moved and were seen in schools located some distance from the target school.

stemmed from the lack of familiarity with test taking that was characteristic of these children and from poor testing conditions. In addition, a number of the younger children were unable to hold a pencil or, in many cases, to read the test material or follow instructions required for some items. Despite the use of small groups for testing, in a number of instances the examiners were unable to maintain order to prevent copying, or to focus the attention of the children upon the test throughout the session. For many of the children the testing experience with strange adults was either too threatening or too novel for them to concentrate their efforts upon the test materials.

During the 1969 CAT testing, most examiners noted similar problems with the first grade sample and, to a lesser degree, with the second graders. However, the third grade groups as a whole appeared to have gained significantly in test taking skills which may have had a favorable impact upon their scores. In addition, the Upper Primary Level of the CAT took far less time to administer than the Lower Primary Level, a factor which undoubtedly reduced the kinds of testing problems encountered with younger children. Also, on the basis of last year's experience, great efforts were made to insure more favorable and less noisy testing situations. Although these efforts were not entirely successful, they did result in more positive testing conditions than were previously experienced.

Instruments

The California Achievement Tests Battery, Forms W and X, Lower Primary Level (administered to first and second grades) and Upper Primary Level (administered to the third grade sample) were used to assess achievement functioning (Tiegs and Clark, 1957). These standardized instruments are composed of a series of tests designed for group administration by examiners with minimal training in testing procedures.

The California Achievement Tests are divided into three basic subject areas: Reading, Arithmetic and Language. Each area subtest is divided into two tests. Reading is assessed by means of vocabulary and reading comprehension tests. Facility in arithmetic is measured by problems in arithmetic reasoning and items which reveal mastery of arithmetic fundamentals. Language is evaluated by items dealing with the mechanics of English and spelling.

Scoring of the tests was carried out in accordance with the CAT manual. Results for a given area subtest were voided and assigned a raw score of zero if the child failed to attempt one or more sections or indicated more than one response to three or more items in a section of the area subtest. Raw scores, representing the total number of correct answers given to each of the area subtests and for the total battery of tests, were used as the dependent variables in all analyses.

RESULTS

The Median Test (Siegel, 1956) was employed to analyze the achievement data gathered for the evaluation of Hypotheses 3 - 5.[1] In all analyses, the chosen level of significance was $\rho < .05$. Detailed results obtained for each of the eight counties in which achievement testing was conducted during the 1968-1969 school year for children enrolled in first, second and third grades are presented in Appendices B - E.

Hypothesis 3a

This hypothesis predicted that former Project participants enrolled in second grade during the current school year would score higher on the CAT than other second grade disadvantaged children with no Project experience. Forty-three pairs of former Project participants and their matched (sex, age at testing and socioeconomic status), non-Project controls were compared in terms of their 1969 CAT scores. (Both groups had been compared previously on the CAT while they were enrolled in the first grade.)

Median Tests indicated no significant differences between these groups in terms of their CAT Total Battery, Reading Area, Arithmetic Area, and Language Area raw scores. Additional analyses revealed no significant sex differences in this second grade sample. However, boys (n=48) tended to be somewhat older than girls (n=38) (Mean CA boys = 95.44, Mean CA girls = 92.61, $t = 2.69$, $df = 84$, $\rho < .05$, two-tailed test), which may have reduced the chances of finding any sex differences considering the positive relationship between age and CAT performance (Tiegs and Clark, 1967).

As a further means of evaluating the CAT performance of second grade former Project participants and their comparison group, Grade Placement Equivalent scores based upon mean chronological age at testing and upon raw scores were computed for both groups according to the 1963 norms given in the CAT manual.[2] According to the average ages of these groups, they should perform at the level expected of children of average intelligence in the fourth month of second grade, even though they were actually tested during the sixth month of second grade. However, examination of the data in Table 16 shows that all Grade Placement Equivalence scores obtained by these two groups are from four to seven months below the expected level of CAT performance.

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[1]Non-parametric tests were chosen for these analyses because of the large number of children in the Hypotheses 3 - 5 sample who voided one or more area subtests of the CAT.

[2]A Grade Placement Equivalent score indicates that the group is performing at a level equivalent to that of children of a given age with a median I.Q. of 100. The actual grade placement for this sample is 2.6, that is, they were tested during the sixth month of second grade. If their Grade Placement Equivalent based upon raw scores equals 2.6, that means they performed on the CAT at a level equivalent to pupils who are 96 months of age with a median I.Q. of 100 (Tiegs and Clark, 1967).

TABLE 16: HYPOTHESIS 3a: CALIFORNIA ACHIEVEMENT TESTS RAW SCORES AND GRADE PLACEMENT EQUIVALENTS. FORMER PROJECT PARTICIPANTS AND THEIR MATCHED, NON-PROJECT CONTROLS (n=43 pairs). SECOND GRADE, 1969.

	1969 RCCP Second Grade	1969 Controls Second Grade
Mean CA at Testing (months)	93.9	94.4
GPE* Based Upon CA	2.4	2.4
Median Total Battery Raw Score	152.0	165.0
GPE Total Battery	1.7	1.8
Median Reading Area Raw Score	54.0	61.0
GPE Reading	1.6	1.8
Median Arithmetic Area Raw Score	66.0	70.0
GPE Arithmetic	1.9	2.0
Median Language Area Raw Score	34.0	35.0
GPE Language	1.7	1.7

*Grade Placement Equivalent. Actual Grade Placement = 2.6.

Thus, Hypothesis 3a is disconfirmed. At the second grade level, former Project children do not differ in their performance on a standardized achievement test from other disadvantaged children without preschool experience. In addition, both groups perform from one half to two thirds of a school year below CAT norms for their age group in terms of Grade Placement Equivalent scores.

Hypothesis 3b

It was predicted that former Project participants would show a greater improvement in achievement test scores from first to second grade than their matched non-Project controls. To test this hypothesis, difference scores (1969 CAT minus 1968 CAT) were derived for the sample of 43 matched pairs used to evaluate Hypothesis 3a. These difference scores, reflecting whether children gained, remained the same, or lost in terms of their performance on the CAT Total Battery and area subtests, were rank ordered and the significance of group differences assessed by Median Tests. The data for these analyses are presented in Table 17.

The results of these analyses indicate that the control group gained significantly more than the former Project group between first and second grade in Reading Area ($\chi^2 = 5.63$, df = 1, $p < .01$, one-tailed test) and Total Battery scores ($\chi^2 = 3.77$, df = 1, $p < .05$, one-tailed test). The groups did not differ significantly on any other measures.

TABLE 17: HYPOTHESIS 3b: CHANGE IN PERFORMANCE ON THE CALIFORNIA ACHIEVEMENT TESTS: FORMER PROJECT PARTICIPANTS AND THEIR MATCHED CONTROLS (n=43 pairs) TESTED IN MARCH, 1968 AND MARCH, 1969.

	RCCP Second Graders		Control Second Graders	
	Median*	Range	Median	Range
CAT Total Battery	62.0†	20 - 136	70.0†	(-7)- 117
CAT Reading Area	21.0†	5 - 48	29.0†	(-2)- 53
CAT Arithmetic Area	23.0	7 - 55	26.0	(-10)- 50
CAT Language Area	17.0	(-4)- 42	15.0	(-1)- 41

*Difference scores = 1969 CAT Score - 1968 CAT Score. All differences reflect gain unless listed with a minus sign.

†Controls significantly greater gain than RCCP ($p < .05$, .01).

Thus, although significant differences were obtained, they were in the opposite direction from that predicted. Hypothesis 3b is therefore disconfirmed. Contrary to expectation, control children have gained significantly more than former Project children in overall CAT performance, especially in terms of reading achievement.

Hypothesis 3c

Here it was of interest to compare former Project participants who were tested in the second grade during 1968 with former Project participants tested in the second grade during 1969 (the same subjects used for Hypotheses 3a-b) in order to determine if the latter group had benefitted more from having experienced the Project two years after its inception rather than in its first year of operation, as was the case with the 1969 second grade group. These analyses based upon 25 matched pairs (sex, age at testing) indicate that contrary to expectation, the 1968 second grade former Project group scored significantly higher than the 1969 second grade former Project group on the Total Battery ($\chi^2 = 3.92$, df = 1, $p < .025$, one-tailed test), Reading Area ($\chi^2 = 5.33$, df = 1,

$\rho < .025$, one-tailed test) and Language Area subtests ($\chi^2 = 6.17$, df = 1, $\rho < .01$, one-tailed test). The two groups did not differ in terms of their performance on the Arithmetic Area subtest. Nor did they differ in chronological age at testing. These comparisons are summarized in Table 18 .

TABLE 18: HYPOTHESIS 3c: CALIFORNIA ACHIEVEMENT TESTS RAW SCOKES OF FORMER PROJECT PARTICIPANTS. SECOND GRADE, 1968 AND 1969. (n=25 pairs).

	1968 RCCP Second Graders		1969 RCCP Second Graders	
	Median	Range	Median	Range
Total Battery Raw Score	179*	67 - 233	152*	80 - 215
Reading Area Raw Score	66*	22 - 85	54*	32 - 79
Arithmetic Area Raw Score	74	33 - 84	67	22 - 83
Language Area Raw Score	42*	12 - 69	34*	10 - 62

*1968 significantly higher than 1969 ($\rho < .03$ - .01).

Additional analyses were performed to determine if sex differences in achievement functioning existed in this sample. No significant results were obtained.

In order to determine if the 1968 group may have been higher in teacher rated socioeconomic status or in initial intellectual status, analyses were run on these variables. No differences were significant, although the 1968 group tended to have more above average socioeconomic status children and a higher mean Binet I.Q. (n=18 pairs, tested while still enrolled in the Project).

Again, as in Hypothesis 3b, the predicted difference was significant but in the opposite direction. Former Project participants tested as second graders in 1968 scored higher on the CAT in all but one area (Arithmetic) than former Project participants enrolled in second grade during the current school year. Hypothesis 3c is therefore disconfirmed and reversed.

Hypothesis 4

In this assessment, the expectation was that former Project participants enrolled in third grade during the 1968-1969 school year would score significantly higher on the CAT than their matched (sex, age at testing and socioeconomic status) non-Project controls. Thirty-four intact pairs[1] were tested this year (this group was also tested while enrolled in second grade last year) and their scores were compared to test the above prediction. These two groups did not differ significantly in their CAT performance. However, an analysis of sex differences revealed that for the group as a whole, girls (n=38) performed higher than boys (n=30) on the Reading Area ($\chi^2 = 11.50$, df = 1, $\rho < .001$, two-tailed test) and Language Area subtests ($\chi^2 = 6.43$, df = 1, $\rho < .02$, two-tailed test). Table 19 presents these data. There were no significant age differences between boys and girls.

TABLE 19: HYPOTHESIS 4: CALIFORNIA ACHIEVEMENT TESTS RAW SCORES. FORMER PROJECT PARTICIPANTS AND THEIR MATCHED NON-PROJECT CONTROLS. THIRD GRADE, 1969. MALES VERSUS FEMALES.

	Males (N=30)		Females (N=38)	
	Median	Range	Median	Range
CAT Total Battery	222.0	68 - 321	264.0	143 - 329
CAT Reading Area*	56.0	21 - 91	67.0	29 - 91
CAT Arithmetic Area	134.0	29 - 169	144.0	86 - 175
CAT Language Area*	33.0	12 - 70	44.0	12 - 68

*Females significantly higher than males ($\rho < .001, .02$).

Although Hypothesis 4 was not supported by these analyses, a significant sex difference has emerged for the first time in this follow-up study of the achievement functioning of former Project participants and their matched controls.

[1]Attempts to match on the basis of CA were not entirely successful. Four pairs differed by more than five months at time of testing, contributing to a significant age difference favoring the controls (Mean CA RCCP = 104.47, Mean CA Controls = 107.38, $t_{corr.} = 3.16$, df = 33, $\rho < .025$).

It was of interest to determine how the performance of former Project participants now in third grade, along with that of their matched non-Project controls, compared to the CAT norms for children of their age and average intelligence. Table 20 presents median raw scores for CAT Total Battery and area subtests and their Grade Placement Equivalents. According to the mean age at testing of these two groups, they would be expected to earn Grade Placement Equivalents on each subtest of 3.3 - 3.5, that is to be performing at the level of children of average intelligence who are in the third to fifth month of third grade. The Grade Placement Equivalents derived from each of the raw scores indicate, however, that in all but one case (control group, Reading Area subtest) these children are performing at or above the Grade Placement Equivalent level predicted by their age at testing. This finding is surprising since present and previous comparisons (see Briscoe and Archambo, 1969) of former Project participants and their controls against CAT norms have indicated they were functioning below the Grade Placement Equivalent level predicted by their ages at testing.

TABLE 20: CALIFORNIA ACHIEVEMENT TESTS RAW SCORES AND GRADE PLACEMENT EQUIVALENTS. FORMER PROJECT PARTICIPANTS AND THEIR MATCHED NON-PROJECT CONTROLS (n=34 pairs). THIRD GRADE, 1969.

	1969 RCCP Third Grade	1969 Controls Third Grade
Mean CA at Testing (months)	104.47	107.38
GPE* Based Upon CA	3.3	3.5
Median Total Battery Raw Score	229.0	241.0
Total Battery GPE	3.5	3.6
Median Reading Area Raw Score	62.5	62.0
Reading GPE	3.4	3.4
Median Arithmetic Area Raw Score	138.5	134.0
Arithmetic GPE	3.8	3.8
Median Language Area Raw Score	42.0	42.0
Language GPE	3.5	3.5

*Grade Placement Equivalent. Actual Grade Placement = 3.6.

Hypothesis 5

The design for this hypothesis called for a comparison between the first grade CAT scores of former Project participants who experienced the Rural Child Care Project program prior to 1967 and those participants who were enrolled in a Project Child Development Center after 1967. It was predicted that qualitative changes[1] in the program which occurred after 1967 would be associated with higher performance on the CAT. One hundred twelve matched (sex, age at testing) pairs of former Project participants, tested in 1968 or in 1969 (same group used in Hypotheses 3a-b) while attending first grade, were available for these analyses. In partial confirmation of Hypothesis 4, the 1969 first grade group (tested during the current year) scored higher on the Reading Area subtest than the 1968 first grade group of former Project participants ($\chi^2 = 4.94$, df = 1, $p < .05$, one-tailed test). The groups did not differ significantly on any other comparisons, however, despite a tendency for the 1969 group to achieve higher median scores. Table 21 presents the Total Battery, Reading Area, Arithmetic Area and Language Area subtest scores earned by these two groups tested at the end of their first year of public school.

TABLE 21: CALIFORNIA ACHIEVEMENT TESTS RAW SCORES. MATCHED FORMER PROJECT PARTICIPANTS. FIRST GRADE 1968 AND 1969 (n=56 pairs).

	RCCP 1968 First Grade		RCCP 1969 First Grade	
	Median	Range	Median	Range
Total Battery Raw Score	84.5	19 - 150	96.5	23 - 187
Reading Area Raw Score	30.0*	11 - 51	34.5*	8 - 65
Arithmetic Area Raw Score	34.0	2 - 70	37.0	0 - 72
Language Area Raw Score	19.5	1 - 39	21.0	0 - 50

*1969 RCCP first graders significantly higher than 1968 RCCP first graders ($p < .025$).

It was also determined that there were no significant sex differences between children in this sample. Nor were the two groups significantly different in age at testing.

[1]In 1967 the Rural Child Care Project became a Head Start program. A higher teacher-pupil ratio was instituted to meet Head Start guidelines and most Centers began using the more structured unit method in presenting activities to the children.

Additional comparisons between the 1969 first grade former Project participants and a matched (sex, age at testing and socioeconomic status) group of first grade non-Project children (n=49 pairs) were also performed. Although the matching of these groups was successful in terms of sex and age at testing, the results of the analyses call the socioeconomic status matching done by teachers (see Methods section) into serious question considering the results of other similar comparisons. In this case, the control group was significantly higher than the former Project group on every measure (Total Battery, $\chi^2 = 3.31$, df = 1, $\rho < .05$, one-tailed test; Reading Area, $\chi^2 = 3.43$, df = 1, $\rho < .05$, one-tailed test; Arithmetic Area, $\chi^2 = 3.31$, df = 1, $\rho < .05$, one-tailed test; Language Area, $\chi^2 = 2.72$, df = 1, $\rho < .05$, one-tailed test). These findings are presented in Table 22 Although no sex differences were obtained for this sample, boys tended to be significantly older than girls (Mean CA boys = 82.10, Mean CA girls = 80.53, t = 2.17, df = 96, $\rho < .05$, two-tailed test).

TABLE 22: CALIFORNIA ACHIEVEMENT TESTS RAW SCORES AND GRADE PLACEMENT EQUIVALENTS. FORMER PROJECT PARTICIPANTS AND THEIR MATCHED NON-PROJECT CONTROLS (n=49 pairs). FIRST GRADE, 1969.

	1969 RCCP First Grade			1969 Control First Grade*		
	Median	Range	GPE[1]	Median	Range	GPE[2]
Total Battery Raw Score	97	39 - 187	1.3	110	35 - 163	1.4
Reading Area Raw Score	35	15 - 65	1.2	41	17 - 70	1.3
Arithmetic Area Raw Score	36	0 - 72	1.3	45	5 - 73	1.4
Language Area Raw Score	21	0 - 50	1.3	27	0 - 42	1.5

*Controls significantly higher on all comparisons ($\rho < .05$).

[1]Grade Placement Equivalent. Actual grade placement = 1.6, whereas GPE predicted on the basis of mean chronological age at testing (81.31 months) is 1.4.

[2]Grade Placement Equivalent. Actual grade placement = 1.6, whereas GPE predicted on the basis of mean chronological age at testing (81.04 months) is 1.4.

As was done with data gathered on older children, Grade Placement Equivalents for the CAT scores of these first grade former Project participants and their comparison group were determined to provide a further evaluation of their achievement functioning. As Table 22 indicates, former Project children performed from one to two months below the level expected for children of average intelligence of the same age. Control children tended to perform at or above the norms, however.

Thus, Hypothesis 5 is partially confirmed in the finding that former Project participants enrolled in the child development program after 1967 scored higher in reading achievement in first grade than those participants enrolled prior to 1967. However, there is disquieting evidence that these same 1969 first graders did not score as high as a so-called concurrent control group on all CAT tests, a finding which may be due to a poor job of matching these children to the Project group on the basis of socioeconomic circumstances.

DISCUSSION

Comparisons in this follow-up evaluation of achievement functioning in former Rural Child Care Project children were of two basic kinds: (a) assessment of differences between former Project participants enrolled in the first three grades of public school and matched control groups constituted on a post hoc basis, and (b) an indirect evaluation of changes in Project child development program effectiveness through achievement comparisons between children who were enrolled in a Project center prior to 1967 or after 1967.[1]

Several limitations affect the interpretation and generalization of findings reported here. For example, there are no "baseline" achievement measures established for former Project children while they were enrolled in a Project center. The constitution of control groups "after the fact," with heavy reliance upon teacher rated socioeconomic status of children selected as controls (especially with the 1969 first grade sample[2]), has proved to be something of a methodological mistake. Results of this study

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[1]As has been mentioned before, the Rural Child Care Project became a Head Start (full year, full-day) program in the summer of 1967. The teacher-to-child ratio was increased, a unit curriculum was instituted throughout the ten county program, supervisory procedures were tightened, and the local staff had at that point acquired two years of training and experience.

[2]In many cases teachers failed to supply socioeconomic status information for this group. Also, there was less supervision of teachers by Research Division staff in assigning these ratings. Last year (1967-1968 evaluation) each child was rated by a member of the Research Division staff, a procedure which in retrospect seems clearly more reliable.

and last year's evaluation (Briscoe and Archambo, 1969) indicate that there are some important differences between successive samples of Project "graduates." It seems that those children who were enrolled during the first year of the Project (1965-1966) were generally of a higher socioeconomic status than children enrolled in later years. As Project personnel have gained experience and as the Project has gained acceptance in the communities it serves, more "hard core" poverty families have been recruited than was initially the case. Therefore, it is impossible to evaluate effects of program changes apart from the confounding effects of changes in child characteristics over the past four years. Furthermore, no provision was made in the original design of the follow-up evaluation of former Project participants to assess the cumulative effects of prolonged participation in the Project (i.e., where several siblings attend the program over several years) as opposed to short-term participation in the Project (i.e., where only one child attends the program for a maximum period of two years). Because of the great variability noted within subject groups in all analyses undertaken for this report, it would be advisable if similar evaluations would devote more time to assessment of individual differences within groups rather than to the somewhat easier assessment of between group differences.

Despite the above problems, this follow-up assessment of achievement functioning has yielded some interesting findings. It is clear from these data as well as earlier comparisons (Briscoe and Archambo, 1969) that former Project children have not performed significantly better on standardized achievement tests than supposedly similar children who entered public school without the benefit of a preschool program (the Rural Child Care Project or other program such as summer Head Start). In fact, this year for the first time, it was found that control children in the 1969 first grade sample scored higher on all CAT area subtests and the total battery than Project children. Control children in the 1969 second grade sample also showed significantly greater gains on the CAT from first to second grade testings.

Obviously, the simplest explanation for the difference between 1969 first grade control and Project children is that teachers did not follow (or could not follow) the instructions they were given regarding socioeconomic status of control children. However, other factors may also be responsible. Assuming that these results do not indicate that the effect of Project participation is harmful with respect to later achievement test performance (!), it seems reasonable to assume that 1969 first grade control children may have scored higher due to the effects of first grade instruction in reading. That is, since it has not been explicitly a goal of the Rural Child Care Project curriculum to provide direct instruction or readiness in reading (see Volume I of this report), it may be argued that the control children tested at the end of first grade may have caught up to and passed Project children (especially if indeed controls are of a higher socioeconomic status background) on the basis of instruction in first grade.

It also seems reasonable (if we assume socioeconomic status matching was more successful for this sample) that Project children on initial CAT testing in 1968 first grade scored higher and made less gain between the 1968 and 1969 testings because of their initially higher level of rapport with adults, established as a result of Project participation.[1] Controls, on the other hand, may have shown greater inter-test gains because of a practice effect which benefitted them more than the Project group. The fact that these two groups did not differ in terms of CAT raw scores at 1968 first grade or 1969 second grade testings tends to support this line of reasoning.

In discussing findings obtained for the 1969 third grade follow-up sample, it should be recalled that these former Project children are generally assumed to be of higher socioeconomic status than later groups of Project children since they were the first youngsters to attend the Project centers at a time when Project personnel were least successful in recruiting hard core poverty families. It is not surprising in the light of similar comparisons that these Project children do not score higher than their controls, assuming they were accurately matched on the basis of socioeconomic status, and knowing they tended to be somewhat younger than their controls. It is surprising that both groups, Project and control, scored closer to the CAT norms than the 1969 first and second grade samples. It is especially surprising that this group has exceeded the norms in several instances, when chronological age at testing is used as the basis of comparison. Aside from the obvious explanation that these children, by virtue of their performance, seem less "disadvantaged" than might have been expected of former Project participants, it should be noted that they did not perform quite as well with respect to CAT norms one year ago (Briscoe and Archambo, 1969). It may be that the shift from the CAT Lower Primary Level to the CAT Upper Primary Level has been beneficial for these children. It was noticed by Research Division examiners that third grade children seemed to apply themselves more to the test than younger children this year, and that the test was "easier" to complete because it required about one hour less time than the CAT Lower Primary Level test. Also, third graders voided fewer area subtests than children in the first and second grade samples which suggests the CAT Upper Primary Level form is easier to complete.

Regardless of the other reasons for the strong performance of the third grade sample, these findings indicate that target school instruction in reading, arithmetic and language is apparently adequate with respect to the 1963 CAT norms for the Upper Primary Level test. There is no ready explanation concerning the superior reading and language achievement scores of third grade girls in the total sample, especially since sex differences have not been apparent in other comparisons in the present study or previous evaluation (Briscoe and Archambo, 1969). In sum, this

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[1]See Section VII, which presents the results of a teacher survey dealing with the differences between former Project children and other non-Project disadvantaged children when they enter first grade.

this group does not resemble a hard core disadvantaged sample which would be expected to show a progressive decline in achievement test scores after three years of public school when the effects of preschool intervention (especially a non-academic program) would be expected to have "dissipated."

The second basic set of comparisons between successive generations of former Project participants has provided encouraging if mixed findings. For the 1968 and 1969 first grade samples, it is apparent that children who experienced the Project child development program after 1967 benefitted more in terms of their reading achievement test scores than did children who attended prior to 1967. This result suggests that the impact of the Rural Child Care Project upon reading achievement has increased since 1967.

The apparent contradiction to this conclusion, i.e., the finding that 1968 second grade former Project children scored higher on the CAT Reading and Language Area subtests than 1969 second grade former Project children, is probably due to factors other than program effectiveness. For instance, the 1968 second grade group is the same as the 1969 third grade group. In other words, these are the children who entered the Project in 1965-1966 and who have been assumed to be of a somewhat higher socioeconomic status than succeeding groups of Project children.[1] Both the 1968 and 1969 second grade samples were exposed to the Project prior to 1967 or immediately thereafter, possibly before any real effect was evident from program changes undertaken at that time.

Because of the numerous methodological problems encountered in the follow-up evaluation of achievement functioning in former Project children, it has been proposed for the 1969-1970 evaluation of the Rural Child Care Project to undertake achievement testing of Project children while they are enrolled in a child development center. In addition, comparisons will be made between their achievement levels and those attained by disadvantaged children enrolled in summer Head Start programs and middle class children attending private nursery schools and kindergartens located in the eastern Kentucky region. It is also of concern to evaluate achievement functioning in terms of Project curriculum so that the results of the evaluation can be used to increase the Project's impact upon children while they are still enrolled in the child development program.

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[1]As was mentioned in the Results section, a check of socioeconomic status and initial Binet I.Q. scores (where available) indicated that the 1968 group tended to be of higher status although group differences were not statistically significant.

III. The Influence of Title I ESEA Programs Upon Achievement of Former Project Participants

According to Section C of the Work Statement of the 1968-1969 extension of OEO Contract 4205, "The contractor shall: (1) Identify the children in the follow-up study who are in schools using Title I funds, describe the Title I programs and evaluate them on a scale so that their input has some weight..."

METHOD

The general method for evaluating the influence of Title I ESEA programs on achievement was to administer the California Achievement Tests (CAT) to first, second and third grade samples of former Project participants (see Section II, Hypotheses 3-5) and to evaluate their achievement performance as a function of the rated quality of county Title I programs. Rating of county Title I programs was accomplished by a questionnaire administered to county Title I administrators.

Subjects

The subjects selected for these analyses were those tested as part of the 1969 CAT testing. A complete description of these first, second and third grade former Project children has already been presented in Section II. A total of 49 first grade, 46 second grade, and 34 third grade subjects were available for these analyses.[1]

Instruments

The California Achievement Tests, Forms W and X, Lower and Upper Primary Levels (Tiegs and Clark, 1957) have already been described in Section II.

A questionnaire designed for oral administration was constructed by the Research Division staff[2] to obtain information from county Title I administrators regarding the content of Title I programs affecting children in the first three grades during the current (1968-1969) school year and the level at which such programs were staffed and funded (see Appendix F). The focus of the questionnaire was toward obtaining

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[1] Control group (non-Project) children were not used for these comparisons primarily because of the lack of differences between these children and former Project children on the CAT.

[2] This questionnaire was reviewed by a representative of the Office of the Title I Coordinator, Kentucky Department of Education. The final draft incorporated minor changes which he recommended. Interviewing of county Title I Coordinators was conducted with the knowledge and cooperation of state Title I officials.

information on reading, arithmetic and language programs funded by Title I since achievement functioning in these areas is specifically assessed by the CAT. Separate portions of the questionnaire were devoted to Title I programs for each of the three grade levels involved in this assessment. Additional questions at the end of the questionnaire asked for the same information regarding the influence of programs other than Title I (e.g. Title III ESEA and Title II NDEA) which supplement or enrich reading, arithmetic and language curricula in the first three grades.

Procedure

The procedures for administration of the CAT in March, 1969, have been detailed in Section II.

Administration of the Title I questionnaire was accomplished by two members of the Research Division during May, 1969. All county Title I administrators cooperated fully in providing the desired information.

It should be noted that the current evaluation of the impact of Title I programs entailed several different procedures than those employed as part of the 1967-1968 follow-up evaluation (Briscoe and Archambo, 1969). Questionnaires were mailed to each county Title I administrator in the 1967-1968 evaluation. In addition, information gathered last year reflected Title I expenditures on a county wide basis, whereas this year information was gathered with respect to the county target school, i.e., the school in which former Project participants are currently enrolled. Last year questions were more general with respect to expenditures and staff rather than focussed solely upon reading, arithmetic and language programs. Data obtained on 1967-1968 programs was for grades one and two combined, instead of grades one-three separately.

The procedure followed in rating 1968-1969 county Title I programs for each grade was as follows: Information from each questionnaire was summarized according to general categories dealing with the purpose of full year and summer Title I,[1] staffing, and funding.[2] Then counties within each grade level were rated to determine the "best" and "worst" for each of the categories for which information had been obtained. The "best" Title I program for a given grade was then determined on the basis of having the most favorable ratings across categories. Correspondingly, the "worst" county Title I program for each grade was defined as the one which had the lowest ratings across categories.

Tables 23 and 24 present a summary of the information obtained for county Title I programs in grades one, two and three.

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[1]Ratings for first grade were based upon full year Title I only, since summer Title I programs prior to first grade are virtually non-existant. In many cases Project children continue in the Project Centers through the summer prior to first grade.

[2]The number of children served by Title I reading, arithmetic and language programs could not be reliably determined and was not used as a rating variable.

TABLE 23: SUMMARY OF INFORMATION USED TO DETERMINE "BEST" AND "WORST" COUNTY TITLE I ESEA PROGRAMS IN READING, ARITHMETIC AND LANGUAGE. TARGET SCHOOL FIRST GRADES. FULL YEAR PROGRAMS ONLY.

County/ Target School	Program Focus	Number of Title I Teachers for Reading, Arithmetic or Language Programs	Number of Title I Aides for Reading, Arithmetic or Language Programs	Estimated Title I Funds Expended for Reading, Arithmetic or Language Materials, Equipment, Teacher Training
Elliott/ Sandy Hook	Reading, Language	1	2	1750[1]
Floyd/ McDowell	Reading Materials, Library Supplies	1	1	700[1]
Knott/ Jones Fork	NO TITLE I PROGRAMS			
Lee/ Southside Elementary	Remedial, Developmental Reading	2[3]	2	424[3]
Magoffin/ John T. Arnett	Art, Music Enrichment	0	0	0
Morgan/ Ezel	Improve Standards, Reduce Dropouts	1	0	232
Owsley/ Booneville	Basal Reading	1[3]	3	924[1,2,3]
Wolfe/ Red River Valley	Enrichment, Reading	2[1,2]	1	239

[1] Includes Title II ESEA Funds.
[2] Includes Title III ESEA Funds.
[3] Includes use of Eastern Kentucky University's Title III Child Study, Speech Diagnosis and Curriculum Laboratory Services.

TABLE 24 : SUMMARY OF INFORMATION USED TO DETERMINE "BEST" AND "WORST" COUNTY TITLE I ESEA PROGRAMS IN READING, ARITHMETIC AND LANGUAGE. TARGET SCHOOL SECOND AND THIRD GRADES. FULL YEAR AND SUMMER PROGRAMS COMBINED.

County/ Target School	Program Focus: Full Year (Summer)	Number Title I Teachers for Reading, Arithmetic, Language	Number Title I Aides for Reading, Arithmetic, Language	Estimated Title I Funds Expended for Reading, Arithmetic, Language Materials, Equipment, Training
Elliott/ Sandy Hook	Reading, Art, Music (Reading, Arithmetic, English)	1 (3)	2 (3)	1750[1] (900)
Floyd/ McDowell	Reading, Library Materials (Remedial Reading, Arithmetic and Language)	1 (3)	1	700[1] (150)
Knott/ Jones Fork	(Art, Music, Language Arts)	(3)		(100)
*Lee/ Southside Elementary	Remedial, Developmental Reading (Same; Language, Art, Music, P.E.)	2[3] (2)[3]	2 (3)	424[3] (150)[3]
Magoffin/ John T. Arnett	Art, Music (Developmental Reading)	0 (0)	0 (0)	-0-
Morgan/ Ezel	Improve Standards, Reduce Dropouts (None)	1	0	232
Owsley/ Booneville	Basal Reading (Language Arts, Arithmetic)	1[3] (4)	3 (3)	924 (950)
Wolfe/ Red River Valley	Enrichment Reading (Remedial Reading)	2[1,2] (2)[1,2]	1	239 (75)

[1] Includes Title II ESEA Funds.
[2] Includes Title III ESEA Funds.
[3] Includes use of Eastern Kentucky University's Title III Child Study, Speech Diagnosis and Curriculum Laboratory Services.
*Not included in second grade analyses for Hypotheses 3-5.

These Tables make it clear that the data for all three grades in most cases are identical. This is mainly due to the prevalent tendancy for schools to utilize materials and personnel at more than one grade level. Additional information, not reported here, was given on other aspects of Title I programs dealing with the provision of special teachers and aides (music, art, and physical education teachers; school nurses) as well as funds for programs and materials not immediately concerned with reading, arithmetic and language. It was also evident from interviewing the state Title I official as well as the county Title I officials that prior to this year Title I programs did not affect most children below fourth grade. In addition, until the current year, more money was used to improve facilities and purchase equipment than to purchase special remedial or developmental instruction for disadvantaged children (most schools in these counties are considered disadvantaged as a whole). Title I administrators found it difficult to break down costs according to individual schools. In several instances they explained that the target schools involved in this study received less of the county allocation for Title I (in one case the school received comparatively more funds for its summer program) than other schools. It became clear that any evaluation of the impact of Title I, especially as it affects children who attended a Rural Child Care Project child development center, is hampered by the manner in which Title I funds have generally been used and the lack of comparability between schools and in the way in which each school absorbs its Title I funds.

Several county Title I administrators commented at the end of the interview session that they felt their Title I programs were improving the academic skills of school children and as evidence they cited improved scores on standardized instruments such as the Stanford Achievement Test. Other Title I administrators felt their Title I program was good but that it was too early to judge its effects objectively. In these cases, the administrators commented that they felt Title I programs were making school a more interesting and pleasant place for children and thereby lowering absenteeism and increasing parental participation. One administrator felt Title I was increasing teacher professionalism. However, there was little relationship between these subjective evaluations offered by the county Title I administrators and the information they were able to give regarding staff and funds going into specific program areas. Again, one reason for this may be the fact that no evaluation was made of the comparative adequacy of the target schools in reading, arithmetic and language instruction apart from Title I input. It also proved impossible to get reliable estimates as to the numbers of children affected by Title I funds in the above academic areas.

Returning to the information summarized in Tables 23 and 24, it was decided to group the three best appearing counties together and to determine the three counties which had the least adequate Title I programs. This procedure of labeling more than one county as "best" and "worst" insured that there would be a sufficient number of children available for the comparisons. Accordingly, Elliott, Lee, and Owsley Counties were judged to have the "best" Title I programs, whereas Knott (no Title I program), Magoffin, and Morgan counties were selected as having the "worst" Title I programs in target schools.

RESULTS

On the basis of the selection of "best" and "worst" county Title I programs, former Project children from Elliott, Lee and Owsley counties ("best" program) and Knott, Magoffin and Morgan counties ("worst" program) were compared on the basis of their 1969 CAT performances (Total Battery, Reading Area, Arithmetic Area and Language Area raw scores). Each analysis was done separately by grade (first, second and third). It was predicted that former Project children exposed to the "best" Title I programs would score higher on the CAT than former Project children in schools rated as having the "worst" Title I programs. All analyses employed the Median Test or Fisher's Exact Test of Probability (Siegel, 1956) with the chosen level of significance set at $\rho < .05$.

In only one case did these comparisons indicate that former Project children attending school in one of the "best" counties scored significantly higher on the CAT than former Project children enrolled in schools rated as having the "worst" Title I programs. In the first grade sample, children from the "best" Title I county schools (N=24) earned higher reading area subtest scores than children from the "worst" Title I county schools ($\chi^2 = 3.14$, df = 1, $\rho < .05$, one tailed test).

CAT median raw scores and ranges for the first grade (N=43), second grade (N=37), and third grade (N=26) former Project children included in these Title I comparisons are presented in Table 25. Despite the occurance of only one significant difference between "best" and "worst" groups, there is a consistent tendency for first grade children in the "best" Title I schools to score somewhat higher than children in the "worst" Title I schools. This tendency occurs to a lesser extent among second graders and appears to be absent or slightly reversed among the third grade group.

TABLE 25: HYPOTHESES 3 - 5. CALIFORNIA ACHIEVEMENT TESTS PERFORMANCE OF 1969 FIRST, SECOND AND THIRD GRADE FORMER PROJECT PARTICIPANTS IN COUNTIES RATED AS HAVING THE "BEST" AND "WORST" TITLE I ESEA PROGRAMS FOR THESE GRADES IN READING, ARITHMETIC AND LANGUAGE.[1]

	1969 First Grade		1969 Second Grade		1969 Third Grade[3]	
	Best (N=24)	Worst (N=19)	Best (N=19)	Worst (N=18)	Best (N=11)	Worst (N=15)
Total[2] Battery Raw Score	103.00* (67-187)	78.00* (33-149)	152.00 (52-213)	135.50 (60-215)	226.00 (68-326)	230.00 (153-308)
Reading Area Raw Score	37.50 (17- 65)	34.00 (20- 50)	58.00 (26- 83)	46.00 (31- 78)	54.00 (21- 91)	62.00 (35- 85)
Arithmetic Area Raw Score	43.50 (20- 61)	27.00 (0- 66)	68.00 (12- 83)	60.00 (15- 79)	139.00 (29-172)	136.00 (74-167)
Language Area Raw Score	24.50 (10- 50)	19.00 (1- 38)	33.00 (14- 60)	34.00 (10- 62)	39.00 (12- 68)	41.00 (25- 64)
Mean CA at Testing (months)	82.21	81.21	94.47	93.67	104.36	104.80

[1] "Best" Title I Programs: Elliott, Lee and Owsley counties; "Worst" Title I counties: Knott, Magoffin and Morgan counties.

[2] Scores presented are medians and ranges

[3] Administered CAT Upper Primary Level

*$p < .05$

DISCUSSION

It seems clear from the points already mentioned in the section on Procedure, that it is very difficult in the present report to evaluate county Title I ESEA programs in terms of their effect upon children who have experienced the Rural Child Care Project child development program. This difficulty lies in (a) the fact that the comparability between county target schools in which these children enroll following their participation in the Project has not been established and appears to be questionable; (b) the absence of any overall assessment of target school adequacy in reading, arithmetic and language instruction; (c) the recency of Title I programs for children below fourth grade in most of the target schools; and (d) the difficulty in assessing how much of the county Title I allocation is spent in a target school and whether these expenditures relate directly to improvement in reading, arithmetic and language achievement.

The finding of only one significant difference involving first grade former Project children in "best" and "worst" Title I program schools should not be interpreted, therefore, as a demonstration of the ineffectiveness of Title I programs in these counties. Rather, it seems safe to assume that a valid study would necessitate studying each school program more exhaustively than was intended or possible in this evaluation. Also, despite the inclusion of Title I evaluations in this study and in last year's follow-up report (Briscoe and Archambo, 1969), it now seems that such an evaluation may be more appropriate in the next few years after programs in the early grades are better established and the infusion of funds and personnel from various programs has reduced variations between county schools which presently obscure any clear effect upon school achievement attributable to Title I.

It must be kept in mind as well that an evaluation of Title I programs necessitates looking at them not only in terms of the adequacy of ongoing school programs, but also in terms of the presence of other Federal programs such as ESEA Title III and NDEA Title II. In many of the schools included in this study these latter programs may be contributing as much or more to the improved achievement of children in the early grades as Title I alone.

One speculation does appear warranted by these data: children who have attended a Project center and then progressed through three years of public school without Title I or similar programs aimed at their classrooms do not appear to benefit academically from the general presence of Title I programs in their school. However, former Project children in the first grade do appear to gain a slight edge in reading achievement if there are academically oriented Title I programs designed for them in first grade.

Finally, bearing in mind that last year's evaluation (Briscoe and Archambo, 1969) reported that former Project children had higher achievement scores in the county with no Title I program when compared to former

Project children in the county rated as having the best Title I program, the present findings are reassuring, methodologically, inferentially, and in terms of the new interest counties have in providing Title I services below fourth grade. The present findings suggest that there is a need to focus this kind of assessment upon the individual schools and that, because of the lack of emphasis upon Title I programs in the early grades, it is reasonable not to expect large differences in achievement related to Title I among former Project children in the first three grades. However, in the next few years, assuming Title I programs continue in the early grades, there may be significant achievement effects associated with the presence of a strong Title I program in these target schools.

IV. Hypothesis 6: Parent Value Orientation and Level of Achievement Attained by Former Project Participants.

Hypothesis 6 states that,

> "The extent to which the disadvantaged child utilizes his capacity for achievement in the schools will be related to the basic value orientation of his parents."

Hypothesis 6a states that,

> "Parents of high achieving children (i.e., 'over-achievers') will endorse the belief that the world is orderly and amenable to rational mastery and that therefore a person should make plans which will control his destiny. Parents of low achieving children (i.e., 'underachievers') will endorse the contrary belief."

Hypothesis 6b states that,

> "Parents of high achieving children will express agreement with the idea that a young person should be willing to leave home to make his way in life. Parents of low achieving children, however, will express disagreement with this idea."

Hypothesis 6c states that,

> "Parents of high achieving children will express a preference for individual as opposed to collective credit for work done whereas the parents of low achieving children will not."

Hypothesis 6d states that,

> "Finally, the parents of high achieving children will have higher occupational and educational expectations for their sons than will parents of low achieving children."

METHOD

The evaluation of the above predictions entailed two distinct phases. First, on the basis of group intelligence and achievement tests and teacher achievement ratings, former Project participants enrolled in first, second and third grades during 1968-1969 were designated as "over", "adequate" or "under" achievers. Second, the parents of former Project children so designated were interviewed to ascertain the value they placed

upon their children's future educational, personal, and occupational achievement as well as their endorsement of more abstract achievement-related values. A comparison of the value orientations of parents of "over" and "under" achievers was then made to determine what relationships exist between these sets of variables within the population served by the Rural Child Care Project.

Subjects

First, second and third grade subjects selected for the first phase of this study (i.e., the administration of the predictor instruments and obtaining of the criterion teacher achievement ratings) were essentially the same former Project participants and their matched non-Project controls[1] that composed the samples for Hypotheses 3 - 5 (see Section II). In addition to being tested on the California Achievement Tests (CAT) in March, 1969, as specified in the proposed procedures for this hypothesis (see Section II for a detailed description of the CAT testing), these children were administered the California Test of Mental Maturity (CTMM), a group intelligence test, during the fall of 1968. Table 26 presents a summary of the first, second and third grade matched pairs of former Project children and their controls who were scheduled for CTMM testing and who were actually tested according to county of residence.

Following administration of the CTMM, it was discovered that the tests of 36 children (20 were Project children) were unusable because of failure to follow instructions, because the child had been retained in the same grade as the previous year (it had been decided to include in this study only those children promoted on schedule since the effect of retention upon teacher-rated achievement was uncertain) or because the data were lost. Thus the total CTMM sample consisted of 273 children, 135 of whom were former Project participants.

Teacher-rated achievement level (see Procedure) was obtained in February, 1969, for former Project children with valid CTMM data who were judged eligible for the Hypothesis 6 sample. Following the administration of the CAT to available members of this sample in March, 1969, and determination of the number of valid CAT results for these children, the former Project participant sample assigned "over", "under" and "adequate" achiever designations was constituted. Table 27 summarizes this group of former Project children according to grade, sex, and designated achievement level (see Procedure).[2]

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[1]Although a first grade control group was not incorporated in the design for Hypothesis 6, it was deemed necessary to have one in order that first grade achievement designations would be based upon as broad a distribution as those for second and third graders.

[2]Control children included in this study were used to form a broadly based distribution from which achievement designations were determined. The designated subjects were to be former Project children only, however.

TABLE 26: HYPOTHESIS 6: SUMMARY OF MATCHED[1] PAIRS OF FIRST, SECOND AND THIRD GRADE FORMER PROJECT PARTICIPANTS AND NON-PARTICIPANTS ADMINISTERED THE CALIFORNIA TEST OF MENTAL MATURITY (CTMM) ACCORDING TO COUNTY AND GRADE.

County	First Grade	Second Grade	Third Grade
Elliott	(12)[2] 12	(9) 8 pairs, 1 extra female child	(6) 6
Floyd	(10) 9	(4) 4	(0) 0
Knott	(12) 7	(7) 7	(7) 7
Lee	(5) 5	(6) 6	(2) 2
Magoffin	(7) 6	(5) 5	(7) 7
Morgan	(5) 5	(8) 8	(3) 3
Owsley	(22) 19	(5) 5	(5) 5
Wolfe	(12) 12	(0) 0	(7) 6
TOTALS:	(85) 75	(44) 43, 1 extra female child	(37) 36

[1]Matched in terms of chronological age, sex, school, grade and classroom as well as socioeconomic status (SES). See Section II for a discussion of the difficulties encountered with SES matching.

[2]Numbers in parentheses indicate the number of pairs available.

TABLE 27: HYPOTHESIS 6: FORMER PROJECT PARTICIPANTS (N=156) ENROLLED IN FIRST, SECOND AND THIRD GRADES DURING 1968-1969, WHO WERE DESIGNATED AS "OVER," "ADEQUATE" OR "UNDER ACHIEVERS" FOLLOWING THE ADMINISTRATION OF THE CTMM, CAT AND RATINGS OF CLASSROOM ACHIEVEMENT BY TEACHERS.

	First Grade	Second Grade	Third Grade
"Over Achievers"[1]	18	15	11
"Adequate Achievers"	39	10	25
"Under Achievers"	15	12	11

[1]The total number of children is greater than 135 due to the addition of 21 "Cooperative-Uncooperative" children to the sample (see Procedure).

The second phase of this study entailed scheduling the parents of former Project children designated as "over" or "under" achievers for administration of the "Value Orientation Scale" (modified version, see Procedure and Appendix G).[1] Table 28 presents the number of former Project parents of "over" and "under" achievers eligible for interviewing and those actually interviewed on the Value Orientation Scale (see Procedure and Instruments) in May, 1969. Since 34 of the parents interviewed were from the same family, interview data were based upon a total of 54 former Project children, 30 "over" achievers and 24 "under" achievers.[2] The reasons 82 of the parents scheduled for interviewing were not seen are summarized in Table 29.

[1]Procedures for Hypothesis 6 specified that former Project parents of "adequate" achievers would not be included in the study. Designation of adequate achievers was necessary, however, in order that such children might be distinguished from those at the extremes, i.e., "over" or "under" achievers.

[2]In no instance was more than one child from the same family included in the sample of "over" and "under" achieving former Project participants.

TABLE 28: HYPOTHESIS 6: FORMER PROJECT PARENTS ADMINISTERED THE VALUE ORIENTATION SCALE (MODIFIED VERSION) ACCORDING TO ACHIEVEMENT DESIGNATION ("OVER" OR "UNDER" ACHIEVER), SEX OF CHILD AND SEX OF PARENT.

	Male Parents[1]		Female Parents[1]	
"Over Achievers"	(39)[2]	8	(43)	29
"Under Achievers"	(34)	10	(37)	24
TOTALS:	(73)	18	(80)	53

[1]A total of 34 parents interviewed were from the same family.

[2]Numbers in parentheses refer to parents available for interviewing.

TABLE 29: HYPOTHESIS 6: REASONS PARENTS OF "OVER" AND "UNDER" ACHIEVING FORMER PROJECT CHILDREN WERE NOT ADMINISTERED THE VALUE ORIENTATION SCALE.

REASON	Parent Males	Females	Total
Working	22	8	30
Refused to Cooperate	10	8	18
Illness or Death	7	2	9
Moved	4	4	8
Personal Problems	4	2	6
Divorced or Deserted	5	0	5
Couldn't Be Located	2	2	4
No Longer has Custody of Child	1	1	2
	55	27	82

Instruments

Four instruments were employed in this study. The California Achievement Tests have already been described in Section II (Hypotheses 3 - 5). The California Test of Mental Maturity (CTMM) Short Form, 1963 revision is a standardized group intelligence test available commercially from the California Test Bureau (Sullivan, Clark and Tiegs, 1963). The CTMM consists of seven test units. Tests 1 - 4 comprise the Non-Language section. Each of these four units requires a minimum use of language by the pupil, both in comprehending directions and in determining correct responses. Non-Language items assess those mental abilities involving recognition or logical analysis of particular concepts and relationships. Tests 5 - 7, the Language section, sample the ability to comprehend verbal and numerical concepts and the extent and accuracy of recall. The Non-Language and Language sections contain 31 and 33 items respectively. Items consist of pictures with three or four response choices each.

Two levels of the CTMM were administered to members of the Hypothesis 6 sample. Level 9, designed for children with little exposure to school, was administered to the first grade sample who had entered school two to three months prior to testing. Level 1, designed for upper first grade through lower third grade, was administered to the second and third grade samples.

The CTMM tests were scored according to procedures specified in the examiner's manual. For purposes of assigning achievement designations, only the total I.Q. score was used.[1]

The third instrument was devised by the Research Division staff to assist teachers of target classrooms in rating the level of actual achievement of the former Project children tested on the CTMM and CAT. Appendix H presents the "Instructions for Teachers Rating Academic Performance". It was necessary to construct such an instrument due to the diversity of grading systems employed at the first, second and third grade levels in the target schools. This instrument enabled teachers to use the same five point rating scale (A, B, C, D, F) regardless of the particular grading system they used. Ratings were based upon actual classroom performance (not "potential") in comparison with the performance of all other children in the same grade level (see Procedure).

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[1]The Language I.Q., Non-Language I.Q. and total I.Q. scores for each child tested were reported to the principals of each target school, along with the CAT raw scores obtained in March. This was done at the request of several school officials and also as a gesture of gratitude for the cooperation given members of the Research Division in carrying out the extensive testing program called for in Hypotheses 3 - 6.

The Value Orientation Scale (U.S. Library of Congress, Document No. 501) was devised in its original form (see Appendix I) to assess the familial determinants of achievement in Italian and Jewish adolescent boys (Strodtbeck, 1958). In order to determine whether a relationship exists between parent value orientation and level of achievement attained by former Project children, certain changes had to be made in the original format of the Value Orientation Scale. The wording was changed so that items could be asked of parents rather than of children (the original scale was administered to adolescent boys). In addition, separate forms of the scale were devised for parents of boys and parents of girls (the item content of the original scale was focussed upon males). Permission to make these changes was secured from the OEO Office of Head Start Research and Evaluation in January, 1969.

Only three parts of the original scale were actually used in this study: Part III A, which examines parent occupational preferences, Part III B, which asks for the parent's educational and occupational aspirations for his or her child, and Part III D which contains 15 items concerned with attitudes toward mastery, achievement and independence. In constructing a parallel form for parents of girls, female-oriented occupations of equal rank were selected from the Hollingshead Index of Social Position (1965). Also, a section repeating the content of Part A within a forced choice comparison format was added to determine if this format would elicit more meaningful differences than the format used in the original scale.

The research forms of the modified Value Orientation Scale for parents of boys and parents of girls are presented in Appendix G .

Procedure

The CTMM and CAT were both administered in the target schools by members of the Research Division staff[1] according to standardized procedures set forth in the examiner's manuals for both instruments (see Section II for a discussion of CAT testing procedures). Administration of both instruments was accomplished by two teams of two examiners each. At the time of CTMM testing, three of the examiners were members of the Research Division staff and the fourth member was a testing consultant hired for this purpose.

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[1]Sixteen children in Morgan county included in the Hypothesis 6 sample were given the CTMM by the school counselor less than a month prior to the date they were scheduled to be given the CTMM as part of this study. To avoid the needless expense of retesting these children after such a short interval of time, these test scores were made available to the Research Division.

Teacher rated achievement for each child in the Hypothesis 6 sample was obtained by having each teacher meet briefly with a member of the Research staff in order to have the rating procedures explained (see Appendix H). Following the explanation, the teacher was left an instruction sheet and a list of names of children in the sample who were currently enrolled in her classroom. She was to rate each of these children on a five point scale (A, B, C, D, F) in terms of his actual classroom achievement (in all subject areas) in comparison with all other children of that grade level in that school. In most instances, teacher ratings of achievement were returned to the Research Division office by mail. In reviewing ratings received from the 49 teachers completing them, it was decided to have three teachers redo their ratings because of an apparent failure to understand instructions. In all other cases, the Research Division staff was satisfied that teachers had an adequate understanding of the rating system and the basis of comparison they were to use.

According to the design for Hypothesis 6, the designation of former Project participants as over, under and adequate achievers was to be accomplished by the following method: First, the CAT and CTMM scores of all children included in these testings (Project and non-Project matched controls) were to be converted to standard deviation or "z" scores. Z scores between ± 1 would be considered the equivalent of average or "C" achievement potential; those between one and two standard deviations above the mean would be considered "B" achievement level; scores more than two standard deviations above the mean would be considered predictive of "A" grades; those between one and two standard deviations below the mean would be considered as "D"'s, and those scores falling more than two standard deviations below the mean would be designated as "Failing". Secondly, those Project children for whom standard deviation scores based upon the CAT (total battery raw score) and CTMM (total I.Q.) did not lead to equivalent predictions of achievement potential were to be excluded from the sample. Finally, the z score predictions for each child were to be compared with the actual achievement level ratings (A, B, C, D, F) made by their classroom teachers. In those instances where the predicted letter grade exceeded the teacher rated letter grade, the child was to be designated as an under achiever. Where the predicted letter grade was lower than the teacher rated letter grade, the child was to be called an over achiever. Those children whose predicted and teacher rated grades were equivalent were to be designated as adequate achievers.

A number of factors necessitated a change in this basic procedure. It was discovered at the time teacher ratings of actual classroom achievement were obtained that few teachers below the third grade conformed to a five point grading scale, regardless of the particular notation (letters, numbers of adjectives) employed. Thus, although the rating had been set up so that various notation systems could be used interchangeably, it proved difficult and often impossible to get teachers to use a five point scale. The distributions of actual achievement ratings obtained from

first and second grade teachers were skewed. For all grades there was a tendency to give virtually equal numbers of "A", "B" and "C" ratings with virtually no ratings of "Failure." When the standard deviation method of comparing predictor scores with criterion ratings was used, the majority of former Project children in all three grades were designated as over achievers with few adequate achievers and virtually no under achievers emerging. The April, 1969, Quarterly Research Progress Report (pp. 27-33) presents in considerable detail a discussion of the various alternative procedures for making achievement designations that were considered. It was finally decided that the simplest method would be to stratify the obtained distributions of CAT total battery raw scores and CTMM I.Q.'s in terms of the percentages of A, B, C, D, and F grades assigned by teachers within each of the three grades.[1] For example, first grade teachers assigned "A's" to 28% of the sample. Accordingly, former Project children falling in the top 28% of the CAT and CTMM distributions would automatically be assigned predicted achievement level ratings of "A." In order to determine whether a child who fell in the top 28% of the CAT and CTMM distributions was an "over," "under" or "adequate" achiever, his teacher rated achievement level was compared to his predictor variable "A" level score. If, as was the case with first grade teachers, no "F" actual achievement ratings had been given, then the CTMM distribution was stratified into four levels (A, B, C, D). Thus, the comparability between children's achievement designations from grade to grade lay only in the method by which their CTMM rank was compared to their actual level of achievement.

Although this procedure was more successful in generating more equal numbers of "over", "under" and "adequate" achievement designations than other methods, it did produce a high number of discrepancies between predictions based upon CAT and CTMM scores. Only 39 former Project children received the same predictions based upon their CAT and CTMM scores. Since 18 of these children were designated as adequate achievers, this left a total of 21 children in the sample. It was decided to eliminate the CAT as a predictor variable and to use the CTMM I.Q. score alone.[2] This procedure led to the designation of 69 children as over or under achievers, which was considered to be a much more satisfactory number.

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[1]This change in procedure redefined the "predictor" measures (CAT, CTMM) as concurrent measures. It also cast the teacher ratings of actual achievement into more of a "predictor" than "criterion" role.

[2]Because of time pressures to schedule and complete interviews of parents it was decided not to rescore the CAT in terms of standardized scores which might conform more closely to the distribution of CTMM I.Q. scores, which are standardized. Elimination of the CAT as a predictor variable was not a wasteful procedure since CAT data were required for Hypotheses 3 - 5 (see Section II). Furthermore, there were no significant differences between Project and non-Project children on the CTMM at any grade level, contrary to the results of CAT comparisons (see Section II). Nor were there significant differences between schools on the CTMM, contrary to findings on the CAT (see Section III).

Scheduling of parents whose children had been designated as over or under achievers for interviewing on the modified form of the Value Orientation Scale (see Appendix G) was accomplished with the assistance of Project Social Workers. These interviews were given during the middle part of May over a two week period. Four members of the Research Division staff (three males and one female) were trained in the use of standardized procedures prior to administering this instrument.

All interviews were conducted orally and individually with parents. Parents who could not come to the Project county office were typically seen at home if it could be arranged. A number of parents proved impossible to interview because of working schedules (this was especially the case with fathers) or because they had been out of touch with the Project for the last two or three years and were reluctant to cooperate or could not be located. It was decided to include as many of the parents in the cooperative-uncooperative sample (see Section V) as possible to insure that the sample size would not be extremely reduced.[1] Although there were too few of these parents available for interviewing (8 in all) to analyze their data separately, their inclusion did help to maintain the sample size for Hypothesis 6 at a more acceptable level.

RESULTS

A summary of descriptive data gathered on the sample of 71 parents given the Value Orientation Questionnaire is presented in Appendix J. There were no apparent differences between parents of over achieving and under achieving former Project participants in terms of age,[2] educational background, occupation, welfare status, numbers of children in the family or enrolled in the Project. Nearly 56% of the parent sample were not actively participating in the Project at the time they were interviewed.

The findings of this study are presented according to each of the four sets of predictions contained in Hypotheses 6a - d.[3] Because of the non-parametric nature of the data obtained from the questionnaire, all tests of significance employed to test these predictions were Chi Square or Fisher's Test of Exact Probability. Decision criteria for the use of these tests were employed according to procedures outlined in Siegel (1956). For all analyses, the level of significance was chosen as $p < .05$.

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[1] It was planned to assess the relationship between achievement level and cooperation with the Project. Consequently, these children had been administered the CAT, CTMM and had been assigned teacher ratings of actual achievement along with the other children in the Hypothesis 6 sample.

[2] Among fathers of over achievers (N=8) there was a much wider age range than in any other parent group.

[3] Because of the smallness of the sample and the "future" orientation of questionnaire items, no distinctions were made in these analyses regarding the current age or grade placement status of the former Project children designated as over or under achievers.

Hypothesis 6a: Perception of the World as Orderly and Amenable to Rational Control

It was predicted that parents of over achieving former Project participants would differ significantly from parents of under achieving former Project participants in their responses to items 1, 8, and 9, Part III D, on the modified version of the Value Orientation Scale used in this study. In other words, parents of over achievers were expected not to endorse these items, whereas parents of under achievers were expected to agree with the fatalistic outlook expressed in these items (see Appendix G for the listing of all items in the modified form of the questionnaire).

In order to test these predictions, certain basic comparisons were made on the basis of achievement level, sex of child and sex of parent. That is, the responses of parents of over and under achievers were compared, then these comparisons were re-run separately for fathers and mothers. Next, parents of over and under achievers were compared on the basis of the sex of child. Finally, parents of males and females were compared separately on the basis of their child's achievement level. In this manner, the possibility of interactions between achievement level, sex of child and sex of parent was partially explored.

On the whole, parents of under achievers endorsed a more achievement oriented view (i.e., disagreed with items 1, 8, and 9) than parents of over achievers (see Table 30). These differences were significant for item 1 ($\chi^2 = 3.39$, df = 1, $\rho < .05$) and item 8 ($\chi^2 = 3.19$, df = 1, $\rho < .05$) but not for item 9. When data for fathers (N=18) and mothers (N=53) of over and under achieving children were compared, it was found that fathers of under achievers were significantly more achievement oriented on item 1 than fathers of over achievers (Fisher's Test, $\rho < .05$), whereas mothers of under achievers were significantly more achievement oriented in their responses to items 8 ($\rho < .025$) and 9 ($\rho < .05$). No differences in responses to these items were associated with the sex of the child or the sex of the parent alone. However, parents of under achieving girls were more achievement oriented on items 1 ($\chi^2 = 7.93$, df = 1, $\rho < .01$) and 8 ($\chi^2 = 4.60$, df = 1, $\rho < .05$) than parents of over achieving girls.

While there is confirmation of Hypothesis 6a, it is in the opposite direction from the expected difference. That is, although parents responded to these items in a manner which was related consistently to the achievement designation of their children, parents of children designated as under achievers expressed the more "achievement" oriented attitudes, contrary to the hypothesis.

TABLE 30: HYPOTHESIS 6a: SCORES[1] ON ITEMS 1, 8, 9, PART III D, OF THE VALUE ORIENTATION QUESTIONNAIRE: PARENTS OF OVER AND UNDER ACHIEVING FORMER PROJECT PARTICIPANTS.

	Parents of Over Achievers (N=37)		Parents of Under Achievers (N=34)	
	N	Percent	N	Percent
Item 1*: "Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself."				
0	20	54.1	11	32.4
1	17	45.9	23	67.6
Item 8*: "Planning only makes a person unhappy since your plans hardly ever work out anyway."				
0	22	59.5	13	38.2
1	15	40.5	21	61.8
Item 9: "When a man is born, the success he's going to have is already in the cards, so he might just as well accept it and not fight against it."				
0	15	40.5	10	29.4
1	22	59.5	24	70.6

*$p < .05$.

[1]All items in Part III D are answered "agree" or "disagree". A score of "0" indicates the respondent does not perceive the world as orderly and amenable to rational control whereas "1" indicates he does, i.e., that he is achievement oriented.

Hypothesis 6b: Independence of Young People From Their Families

Parents of over and under achieving former Project children were compared, according to the same design used in testing Hypothesis 6a, in their responses to items 4, 14, and 15 in Part III D of the modified Value Orientation Questionnaire (see Appendix G) to determine the extent to which they favor the independence of young people from their families

for achievement related reasons. The results of non-parametric analyses indicated there were no over-all differences in responses to these items associated with achievement level, sex of parent[1], or sex of child. In general, as Table 31 suggests, these parents all tended to endorse the independence of young people. Thus, Hypothesis 6b is not confirmed by these findings.

TABLE 31: HYPOTHESIS 6b: SCORES* ON ITEMS 4, 14, AND 15, PART III D OF THE VALUE ORIENTATION QUESTIONNAIRE: PARENTS OF OVER AND UNDER ACHIEVING FORMER PROJECT PARTICIPANTS (N=71).

	Parents of Over Achievers (N=37)		Parents of Under Achievers (N=34)	
	N	Percent	N	Percent
Item 4: "Even when teen-agers get married, their main loyalty still belongs to their mothers and fathers."				
0	8	21.6	5	14.7
1	29	78.4	29	85.3
Item 14: "When the time comes for a boy to take a job he should stay near his parents even if it means giving up a good job opportunity."				
0	3	8.1	1	2.9
1	34	91.9	33	97.1
Item 15: "Nothing in life is worth the sacrifice of moving away from your parents."				
0	3	8.1	2	5.9
1	34	91.9	32	94.1

*All items in Part III D are answered "agree" or "disagree". A score of "0" indicates the respondent does not value the independence of a young person from his family, whereas "1" indicates he does, i.e., that he is achievement oriented.

[1]There was a statistically significant difference between mothers and fathers as a whole ($\chi^2 = 5.52$, df = 1, $\rho < .02$) on item 14, but the difference in group N's (18 and 53) is so large that it seems doubtful this difference is valid or reliable.

Hypothesis 6c: Preference for Individual Rather Than Group Credit

Item 6, Part III D, of the modified Value Orientation Questionnaire (see Appendix G) asks the respondent to agree or disagree with the notion that working for an organization is preferable to working for individual credit. It was predicted that parents of over achieving former Project participants would be more likely to express disagreement with item 6 than parents of under achieving former Project participants (i.e., endorse a more achievement oriented point of view). Assessment of this prediction entailed making the same comparisons outlined in the results section for Hypothesis 6a.

Table 32 presents responses to item 6 for the total sample of parents according to the achievement designations of their children. The results of all tests of significance are in agreement with the data presented in Table 32. That is, there were no significant effects associated with achievement level, sex of child or parent, and any combination of these variables. As the data in Table 32 suggest, parents as a group tended to endorse the view that working for collective credit is preferable to working for individual credit. Since responses to item 6 do not appear to be related to the achievement or subject variables selected for this study, Hypothesis 6c is not confirmed.

TABLE 32: HYPOTHESIS 6c: SCORES[1] ON ITEM 6, PART III D OF THE VALUE ORIENTATION QUESTIONNAIRE. PARENTS OF OVER AND UNDER ACHIEVING FORMER PROJECT PARTICIPANTS

	Parents of Over Achievers (N=37)		Parents of Under Achievers (N=34)	
	N	Percent	N	Percent
Item 6: "The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit."				
0	28	75.7	24	70.6
1	9	24.3	10	29.4

[1]All items in Part III D are answered "agree" or "disagree". A score of "0" indicates a preference for collective credit for work done whereas "1" indicates a preference for individual credit, i.e., an achievement orientation.

Hypothesis 6d: Occupational and Educational Aspirations

Two sets of dependent variables were utilized to test two related predictions set forth in this hypothesis. First, parent approval of given occupations which have been rank ordered according to their status[1] was examined (Part III A, items 1 - 12, see modified scale, Appendix G) as a function of achievement level, sex of child, sex of parent and as a function of any interactions between these variables. Next, parent educational aspirations for their children were compared according to the same design incorporated for testing Hypotheses 6a, b, and c (Part III B, items 1 - 12).

Tables 33 and 34 present the data obtained on parental approval of ranked occupations separately for parents of males and females. In no instance did parents of males differ according to achievement level in their stated approval or disapproval of given occupations. All parents of males tended to express more approval of higher ranked occupations, however. When the data for parents of female[2] over and under achievers are examined, the pattern of approval of occupation appears to be the same as for parents of males with the exception of the sixth ranked occupations. Here proportionately more parents of over achieving girls expressed approval of their daughter becoming a florist assistant or cook than did parents of under achieving girls ($\chi^2 = 5.13$, df = 1, $p<.05$; $\chi^2 = 5.19$, df = 1, $p<.05$).

The use of "forced choice" items dealing with the same ranked occupations (see Part III A, items 13 - 17) produced similar results. That is, there were no differences between parents on the basis of achievement level, sex of child, sex of parent or any interactions between these variables. (The utility of such an approach may have been weakened since all possible combinations of occupations were not used.)

Findings based upon items 1 - 12 in Part III B (see Appendix G) indicated in general no significant differences between parent groups on the basis of their child's achievement level. One exception did occur, however, on item 10. Whereas mothers of male over achievers were almost evenly divided concerning whether they wished their son to have his own business, mothers of male under achievers answered "yes" almost unanimously ($p<.05$).

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[1]These rankings were done in the Strodtbeck (1958) study. Rankings of female occupations were done using Hollingshead's Index of Social Position (1965) which was the same source Strodtbeck used.

[2]Parents of girls were asked whether they approved of their daughter working "outside the home." The vast majority (81%, N=30) favored outside work while only 8% (N=4) were opposed.

TABLE 33: HYPOTHESIS 6d: OCCUPATIONAL PREFERENCES ACCORDING TO ACHIEVEMENT LEVEL OF CHILD (VALUE ORIENTATION QUESTIONNAIRE, PART III A, ITEMS 1 - 12). PARENTS OF MALES.

Occupation	Parents of Male: Over Achievers (N=15) "Pleased"[1]	Over Achievers (N=15) "Disappointed"	Under Achievers (N=19) "Pleased"	Under Achievers (N=19) "Disappointed"
1. Doctor,	14	1	19	0
Advertising Executive	14	1	16*	2
2. Druggist,	15	0	17	2
Jewelry Store Owner	13	2	17	2
3. Bookkeeper,	14	1	17	2
Bank Teller	12	3	18	1
4. Carpenter,	11	4	16	3
Auto Mechanic	9	6	12	7
5. Mail Carrier,	11	4	10	9
Bus Driver	3	12	6	13
6. Night Watchman,	2	13	6	13
Furniture Mover	7	8	8	11

[1]For each item, parents were asked if they would be "pleased" or "disappointed" if their son chose that occupation. For purposes of analysis, the twelve occupations have been grouped into six ranks according to Strodtbeck (1958).

*Data for one parent missing.

TABLE 34: HYPOTHESIS 6d: OCCUPATIONAL PREFERENCES ACCORDING TO ACHIEVEMENT LEVEL OF CHILD (VALUE ORIENTATION QUESTIONNAIRE, PART III A, ITEMS 1 - 12). PARENTS OF FEMALES.

	Occupation	Parents of Female Over Achievers (N=22) "Pleased"[1]	Over Achievers (N=22) "Disappointed"	Under Achievers (N=15) "Pleased"	Under Achievers (N=15) "Disappointed"
1.	Doctor	18	4	13	2
2.	Registered Nurse,	22	0	15	0
	School Teacher	20	2	12	3
3.	Dress Shop Owner	21	1	12	3
4.	Bank Clerk,	19*	1	12	3
	Secretary	22	0	12	3
5.	Hair Stylist,	16	6	12	3
	Weaver	11	11	4	11
6.	Florist's Assistant,	17	5	7	8
	Cook	13	9	4	11
7.	Waitress,	8	14	2	13
	Maid	5	17	2	13

[1]For each item, parents were asked if they would be "pleased" or "disappointed" if their daughter chose that occupation. For purposes of analysis, the twelve occupations have been grouped into six ranks according to Hollingshead (1965).

*Data missing for two parents.

The general findings for this section, presented in Table 35, indicate that in most cases, all parents, independent of their child's achievement designation or sex, wanted their children to get good grades, be important persons in school affairs, be good athletes, finish high school, graduate from college, have better jobs than their parents, become professionals, be outstanding in their occupations, and be respected and looked up to in the community. Only one parent in the entire sample wanted his child (under achieving female) to quit school at 16 to get a job. Parents were somewhat less likely to want their children to become "wealthy", although they generally reported very high aspirations across the board for their children. These findings therefore do not support Hypothesis 6d.

TABLE 35: HYPOTHESIS 6d: PARENTAL EDUCATIONAL ASPIRATIONS ACCORDING TO SEX AND ACHIEVEMENT LEVEL OF CHILD (VALUE ORIENTATION QUESTIONNAIRE, PART III B, ITEMS 1-12).

	Parents of Male (N=34)				Parents of Female (N=37)			
	Over Achievers		Under Achievers		Over Achievers		Under Achievers	
	N	%	N	%	N	%	N	%
Item 1: "Get very good grades."								
YES	14	41.2	18	52.9	21	56.8	15	40.5
NO	1	2.9	1	2.9	1	2.7	0	0
Item 2: "Be an important person in school affairs."								
YES	12	35.3	15	44.1	21	56.8	13	35.1
NO	3	8.8	4	11.8	1	2.7	2	5.4
Item 3: "Be a good athlete." (Be good at extra curricular activities.")								
YES	11	32.4	18	52.9	18	48.6	13	35.1
NO	4	11.8	1	2.9	4	10.8	2	5.4
Item 4: "Quit school at 16 to get a job."								
YES	0	0	0	0	0	0	1	2.7
NO	15	44.1	19	55.9	22	59.5	14	37.8
Item 5: "Finish high school."								
YES	15	44.1	19	55.9	21	56.8	14	37.8
NO	0	0	0	0	1	2.7	1	2.7
Item 6: "Graduate from college."								
YES	11	32.4	16	47.1	17	45.9	13	35.1
NO	4	11.8	3	8.8	5	13.5	2	5.4
Item 7: "Become a wealthy man." (Marry a wealthy man.)								
YES	8	23.5	13	38.2	15	40.5	9	24.3
NO	7	20.6	6	17.6	7	18.9	6	16.2
Item 8: "Have a better job than his father's." (better home than her)								
YES	15	44.1	19	55.9	19	51.4	15	40.5
NO	0	0	0	0	3	8.1	0	0
Item 9: "Become a professional man (person) like a doctor or lawyer (nurse)."								
YES	10	29.4	16	47.1	17	45.9	13	35.1
NO	5	14.7	3	8.8	5	13.5	2	5.4
Item 10: "Have his (her) own business."								
YES	10	29.4	17	50.0	16	43.2	12	32.4
NO	5	14.7	2	5.9	6	16.2	3	8.1
Item 11: "Be outstanding in his (her) occupation."								
YES	14	41.2	18	52.9	21	56.8	15	40.5
NO	1	2.9	1	2.9	1	2.7	0	0
Item 12: "Be respected and looked up to in his (her) community."								
YES	15	44.1	19	55.9	22	59.5	15	40.5
NO	0	0	0	0	0	0	0	0

In reviewing the findings for all sections of Hypothesis 6, it may be concluded that they do not generally support the predictions advanced in this hypothesis. Although there were significant differences between parents of over and under achievers in their responses to items dealing with perceiving the world as orderly and amenable to rational control, these differences were in the opposite direction than predicted. That is, parents of under achievers gave the more achievement-oriented responses, therefore, the findings of this study do not support the predictions of Hypothesis 6 and call some of the basic assumptions underlying this hypothesis into serious question.

DISCUSSION

Aside from the general lack of differences between parents of over and under achieving former Project participants, this study has proven unsatisfactory for strictly methodological reasons. Because parent attitude measures which deal with contemporaneous factors were not employed, the study did not provide any information concerning more immediate antecedents of differences in achievement level of Project children. Asking these parents to anticipate their children's future achievements or to identify with abstractly stated values regarding adult achievement did not elicit responses related to their children's current achievements in first, second or third grade. When the discrepancies in grading systems used in the various schools and the reluctance of most teachers to use a "tight" grading scale with these young children are considered, it is difficult to justify applying Strodtbeck's achievement designation procedures (developed for a study of adolescents) to this sample. While the essential hypothesis remains an important one, i.e., that there is a relationship between parent value orientation and the achievement level of their children, it does not appear fruitful to investigate these variables in such a young sample using these particular measures. Procedures used in similar investigations of grade school children (e.g., Dave, 1965) probably would have yielded more meaningful findings.

The finding that significant differences, when they did occur, favored the parents of under achievers over the parents of over achievers is indeed puzzling. Because this finding was consistent, it should not be dismissed as due to "chance". Rather, the procedures used to arrive at achievement designations may have inadvertently changed the meaning of these designations.

Assuming that teacher rated achievement level of current classroom performance was a rather unreliable measure for this sample of children, it may also be assumed that CTMM I.Q. scores represented a more reliable index of long range achievement functioning. Therefore, it may be argued that the group designated as under achievers was in fact a more "intelligent" group than the one designated as over achievers. This would have to be the case if one bears in mind that a child falling in the upper portion of the CTMM distribution would have a greater chance of getting a comparatively lower achievement rating from his teacher than a child who fell at the lower end of the CTMM distribution.

In order to verify this conclusion, a two sample t-test was run to determine if the CTMM I.Q. scores of over and under achieving groups of former Project children whose parents were interviewed for this study differed significantly. The results of this analysis confirmed that under achievers (N=24) scored significantly higher on the CTMM than those former Project children designated as over achievers (N=30).[1] Thus, any differences between parent responses to the Value Orientation Questionnaire in this study should be attributed to differences in the intellectual level of their children rather than to an achievement level discrepancy (i.e., over or under achievement) per se.

[1]Under achiever mean I.Q. = 94.63, SD = 10.75; over achiever mean I.Q. = 82.40, SD = 12.10; $t = 3.80$, $df = 42$, $\rho < .001$.

V. Follow-Up Intellectual and Achievement Functioning Comparisons Between Children Whose Families Were Designated as "Cooperative" or "Uncooperative" While Participating in the Rural Child Care Project.

According to Section C of the 1968-1969 OEO Contract 4205 Work Statement, the current evaluation was to include, "(2) follow-up of the children of the 'uncooperative families' to determine their scores, achievement, etc., and compare these with the children whose parents stayed in the program."

METHOD

In order to determine if the subsequent intellectual and achievement performance of children from families which refused to cooperate with the Rural Child Care Project would differ from the performance of children of cooperative families, the following steps were taken in the 1968-1969 evaluation. First, the follow-up Stanford Binet testing (see Section I) was expanded to include additional children from cooperative and uncooperative families for whom initial I.Q. data were available. These same children were also included in group administrations of the California Test of Mental Maturity (CTMM) in the fall of 1968 (see Section IV) and the second annual administration of the California Achievement Tests (CAT) given to the follow-up sample in March, 1969 (see Section II). Teacher achievement ratings and parent interviews (Strodtbeck Value Orientation Questionnaire) were obtained for as many of this group who met the sample criteria as possible in conjunction with Hypothesis 6 (see Section IV).

Subjects

Families of children selected for the "Cooperative-Uncooperative" follow-up sample had to meet the following criteria: First, all children were selected from among those who had been tested on the Stanford-Binet Intelligence Scale while enrolled in a Project center during 1965-1966. The Project case history records of these children and their families were then examined in order to classify then as "cooperative" or "uncooperative" according to these criteria:

UNCOOPERATIVE FAMILIES

1) The County Social Worker labeled a family as uncooperative on the "Notice Of Change In Day Care Roster" (KCWRF-74) , i.e., on the form completed routinely when a child leaves the Project.

2) There were no further admissions for subject or siblings (unless dropped again for lack of cooperation).

3) The family was not otherwise maintained (e.g., continued as Homemaking family) after the subject was dropped from a child development center.

4) Attendance while enrolled in a child development center was 55% or less of the days possible (i.e., number of days a Center was open during the child's enrollment).

COOPERATIVE FAMILIES

1) The family was not designated as "uncooperative" by a County Social Worker in case history records.

2) Child(ren) continued to attend a child development center until dropped to attend summer Head Start or public school.

3) Other siblings eligible to attend a child development center were subsequently enrolled.

Eleven families were identified as uncooperative and twenty-two as cooperative. Ten pairs of cooperative and uncooperative children were then matched on the basis of date of birth (within three months), date of first admission to a Project child development center (within three months), sex of child, and socioeconomic status of family. In addition, each pair of children resided in the same county.

In several cases, there was more than one cooperative child who qualified as a "match" for an uncooperative child. Such potential matches (n=9) were included on subject lists for the various testings to insure that substitutions might be made if children were absent on the day of testing. Thus, the total cooperative-uncooperative sample comprised 29 children with analyses to be restricted to the ten uncooperative children and their best "matches" from the group of 19 cooperative children. Table 36 presents a breakdown according to pair, county, grade level and sex of child of the uncooperative sample. Table 37 presents a corresponding summary of the cooperative sample.

As may be seen from these two Tables, it was not possible in all cases to match cooperative and uncooperative children in terms of current grade level, due to the presence of several children who had been retained or who entered school later than their potential match(es). In seven cases, uncooperative children were at the same or higher grade level as their cooperative match(es). In three cases, however, they were at least one year behind their match(es).

TABLE 36: TEN FORMER PROJECT CHILDREN DESIGNATED AS UNCOOPERATIVE ACCORDING TO PAIR, COUNTY OF RESIDENCE, 1969 GRADE LEVEL, AND SEX OF CHILD.

Pair	County	Grade	Sex of Child
1	Elliott	1	F
2	Elliott	2	M
3	Knott	1*	M
4	Knott	2*	M
5	Knott	2	M
6	Lee	2	F
7	Morgan	2	F
8	Owsley	3	M
9	Owsley	2	M
10	Wolfe	3	F

*Retained in same grade last year.

TABLE 37: NINETEEN FORMER PROJECT CHILDREN DESIGNATED AS COOPERATIVE AND SERVING AS POTENTIAL MATCHES FOR UNCOOPERATIVE FORMER PROJECT CHILDREN, ACCORDING TO PAIR, COUNTY OF RESIDENCE, 1969 GRADE LEVEL, AND SEX OF CHILD.

Pair	County	Grade	Sex of Child
1	Elliott	1	F
2	Elliott	3	M
3	Knott	1*	M
4	Knott	3	M
4	Knott	3	M
4	Knott	3	M
5	Knott	2*	M
5	Knott	1*	M
5	Knott	2	M
6	Lee	1	F
6	Lee	2	F
7	Morgan	3	F
8	Owsley	2*	M
8	Owsley	3	M
8	Owsley	3	M
8	Owsley	3	M
8	Owsley	3	M
9	Owsley	2	M
10	Wolfe	3	F

*Retained in same grade as last year.

Instruments

All of the cooperative and uncooperative follow-up sample were scheduled for testing on five different instruments which have been described in previous sections of this report: (a) The Stanford-Binet Intelligence Scale, (b) The California Test of Mental Maturity (CTMM), (c) The California Achievement Tests (CAT), (d) Teacher Achievement Ratings, and (e) Value Orientation Questionnaire (parents only).

Procedures

The procedures followed in administering each of the above mentioned instruments have already been fully discribed in preceding sections. Some additional travel as well as the administration of extra tests was involved, since several of these children were attending schools other than the target schools scheduled for CTMM and CAT testings. Administration of the additional Binets was accomplished by Mrs. Judy Karges of the University of Kentucky Medical Center. Mrs. Allie Hendricks, the examiner for the Hypothesis 1-2 sample (see Section I) also assisted in completing these tests.

RESULTS

Descriptive Comparisons

A number of differences between families included in the cooperative and uncooperative groups for this study were apparent from Project case history records and have been previously noted in some detail in the October, 1968, Quarterly Research Progress Report.

Uncooperative families appeared disinterested in the program. Half of them received homemaking services. Half rejected a Homemaker even though it had been recommended that they receive this assistance. Children of these families attended a child development center only 34% of the time it was open while they were enrolled in the Project (range = 5% to 55%). Uncooperative families exhibited a high proportion of physical, behavioral, and mental abnormalities. Project Social Workers typically noted that these families did not make recognizable improvement while in the Project.

Cooperative family case records indicated less than half of the families received homemaking services. Those not receiving them were not considered in need of such assistance. Children from these families attended a child development center 77% of the time they were enrolled. Of those parents who exhibited behavioral problems, the case records indicated improvement was made while enrolled in the Project. Social Workers and Homemakers tended to describe these families as receptive to ideas and suggestions they offered.

Cooperative families reported a slightly higher mean annual income ($1,824.64 versus $1,661.45) upon entering the Project.

More uncooperative families were receiving Aid for Families with Dependent Children (18.2% versus 4.5%).[1] More cooperative parents were enrolled in Work, Experience and Training programs (31.8% versus 18.2%) or serving as part-time laborers (40.9% versus 27.3%). These groups did not appear to differ in the number receiving public assistance, unemployment or food stamps. There was no difference in family size.

Analyses of Follow-Up Comparisons

The performance of cooperative and uncooperative children who were tested on the Binet while enrolled in a child development center and again in 1969 (n=10 pairs) is presented in Table 38. A series of t-test (correlated samples) comparisons on the basis of Binet IQ_1, Binet IQ_2 and intellectual change between first and second administrations failed to reveal any significant differences between the two groups of matched pairs. In no instance did these children differ in chronological age at testing.

TABLE 38: STANFORD-BINET I.Q. SCORES OF CHILDREN (MATCHED PAIRS) WHOSE FAMILIES WERE DESIGNATED AS "COOPERATIVE" OR "UNCOOPERATIVE" WHILE PARTICIPATING IN THE RURAL CHILD CARE PROJECT. FOLLOW-UP SAMPLE.

	Cooperative	Uncooperative
N	10	10
Binet IQ_1 (1965-1966)		
Mean	93.20	89.90
SD	8.00	11.03
Range	81-110	79-111
Mean CA_1 (in months)	60.60	62.30
Binet IQ_2 (1969)		
Mean	87.40	88.10
SD	12.95	11.81
Range	66-115	74-108
Mean CA_2	95.60	96.60
Binet $IQ_2 - IQ_1$		
Mean	-5.80	-1.80
SD	8.40	7.90
Range	5- (-18)	9- (-17)

[1]Two children were known to be illegitimate.

Only seven pairs of cooperative-uncooperative children were available for comparison on the CTMM (Level I only, administered to second and third graders). Table 39 summarizes the CTMM I.Q.'s obtained by these groups. CTMM I.Q.'s are comparable to Binet I.Q.'s obtained by cooperative children. This is not true for uncooperative children. Despite apparent mean differences favoring cooperative children, the groups are not significantly different on this measure, probably because of the great variability among cooperative children on this test and the small number of subjects available for this comparison. The two groups were not different in terms of age at testing.

TABLE 39: 1969 CALIFORNIA TEST OF MENTAL MATURITY (LEVEL I ONLY)[1] I.Q. SCORES OF CHILDREN (MATCHED PAIRS) WHOSE FAMILIES WERE DESIGNATED AS "COOPERATIVE" OR "UNCOOPERATIVE" WHILE PARTICIPATING IN THE RURAL CHILD CARE PROJECT. FOLLOW-UP SAMPLE.

	Cooperative	Uncooperative
N	7	7
CTMM I.Q.		
Mean	84.57	75.57
SD	17.85	13.95
Range	48-162	60-93
Mean CA at testing (in months)	96.29	97.00

[1]Children tested on Level 0 (first grade) were eliminated from this comparison because they were tested on a different level than their match or because there were too few children tested on Level 0 for a separate comparison.

Comparisons between the two groups on the basis of their CAT (Lower Primary Level) performances also failed to indicate that one group had scored significantly higher than the other on the total battery or any of the area subtests. Table 40 presents a summary of median CAT raw scores earned by these children. It should be noted that on all CAT measures, three of the five uncooperative children scored higher than their cooperative matches. The small number of children available for these analyses prevents determination of the reliability of this finding, however. In all comparisons the two groups were equivalent in age at testing.

TABLE 40: 1969 CALIFORNIA ACHIEVEMENT TESTS, LOWER PRIMARY LEVEL ONLY,[1] RAW SCORES OF CHILDREN (MATCHED PAIRS) WHOSE FAMILIES WERE DESIGNATED AS "COOPERATIVE" OR "UNCOOPERATIVE" WHILE PARTICIPATING IN THE RURAL CHILD CARE PROJECT. FOLLOW-UP SAMPLE.

	Cooperative	Uncooperative
N	5	5
Total Battery		
Median	120	129
Range	43-164	86-191
Reading Area		
Median	46	43
Range	19-57	38-67
Arithmetic Area		
Median	51	59
Range	9-73	30-74
Language Area		
Median	19	29
Range	15-34	18-54

[1]There were not enough pairs tested on the Upper Primary Level for a separate comparison on that form.

Finally, teacher ratings of achievement (i.e., whether a child is considered an A, B, C, D, or F student in comparison with others in his grade) and CTMM I.Q. were compared in order to obtain an achievement designation (i.e., "Over," "Under," or "Adequate" Achiever) according to the same procedures followed in Section IV, Hypothesis 6. Table 41 summarizes these data for the 13 cooperative and 8 uncooperative children on whom such designations could be determined. When the distributions of those designated as "over-achievers" (i.e., child is rated higher by his teacher than is predicted by his CTMM I.Q.) and those designated as "under achievers" (child is rated lower than predicted by his CTMM I.Q.) are compared for the two groups, no significant difference is obtained (Fisher's Exact Test of Probability). However, it appears that the uncooperative group may have proportionately more children rated as over-achievers than the cooperative group. Whether this difference would be reliable with a larger sample cannot be ascertained in this study.

TABLE 41: ACHIEVEMENT DESIGNATIONS (BASED UPON TEACHER RATINGS AND TEST PERFORMANCE) OF CHILDREN WHOSE FAMILIES WERE DESIGNATED AS "COOPERATIVE" OR "UNCOOPERATIVE" WHILE PARTICIPATING IN THE RURAL CHILD CARE PROJECT. FOLLOW-UP SAMPLE.

	Cooperative	Uncooperative
N	13	8
Under Achievers	5	1
Adequate Achievers	5	3
Over Achievers	3	4

Although the parents of all children selected for the cooperative-uncooperative follow-up study were scheduled for the Value Orientation Questionnaire (see Section IV and Appendix G), only six out of 29 sets of parents were seen. Because only one of these parents was included in the uncooperative group, any comparisons between groups on the basis of the Value Orientation Questionnaire were precluded.

DISCUSSION

The findings of this comparison on a follow-up basis between children of families who cooperated and those who did not while associated with the Rural Child Care Project are largely inconclusive. That is, despite several indications in Project case records of qualitative differences favoring cooperative families, the children in both groups appear comparable on all measures. To the extent that differences are suggested by these follow-up data, they are not consistent and they may not be reliable due to the smallness of the samples involved.

In addition, variability within these two groups is apparently greater than any variability due to actual differences between them. That is, there may be several reasons, as yet unspecified, why families refuse to cooperate with the Project. Families who do remain in the Project may vary as well in the extent to which they cooperate. There is little or no evidence of a positive relationship between what has been called "cooperation" in this study and positive benefit to Project participants.

In some instances it may be that Social Workers differ in the reasons they designate families as uncooperative or cooperative. There may also be a tendency for those families who evidence positive attitudes toward Project workers to receive more favorable evaluation than families who are hostile or unfriendly toward workers, regardless of their basic adequacies. Some families have left the Project or been unwilling to accept social services because they felt they would suffer lowered status in their communities. The identification of the Project as a program for "poor" people creates a problem with many poor families whose pride makes them resent being so labeled.

As long as the assessment of cooperation and non-cooperation remains a matter of Social Worker observations in case records, it will be difficult if not impossible to determine more precisely what the implications of cooperativeness are. Therefore, it is recommended that a workers' "affective" reaction to a Project family (i.e., whether he or she "enjoyed working with" the family) be assessed apart from other evaluations dealing with family adequacy in given areas (i.e., family nutrition, budgeting, emotional health, etc.). To accomplish such evaluation will undoubtedly necessitate additional training of Project workers.

Most important of all, however, is the need to consider "cooperativeness" prior to the time a family leaves the Project. In many cases concern should be directed toward providing workers with greater skill and insight and not upon examining what is "wrong" with the family which will not cooperate with the Project (i.e., by sending the child to the center or agreeing to allow a homemaker to visit). Until high levels of worker skills and insights into family attitudes are achieved, it will not be easy to separate those families for whom uncooperativeness is a sign of pathology or inadequacy from those families for whom uncooperativeness represents a legitimate complaint about Project services or personnel.

VI. Hypothesis 7: The Effects of the Rural Child Care Project Homemaking and Child Development Programs Upon Parent Morale.

Hypothesis 7 states that,

> "Parents newly affiliated with the Project who have received homemaking services for a minimal period of four and one-half months and whose children have attended the Child Development Centers for a minimal period of sixty (60) days during the interim will show a significantly greater improvement in their morale than will newly affiliated parents whose participation in the Project is limited to their children's participation in the Child Development Program alone. However, the latter group as well as the former is expected to exhibit some improvement."

METHOD

The predictions contained in Hypothesis 7 were tested by administering the "Morale Scale" (Rundquist and Sletto, 1936) to a sample of parents who were enrolled in the Project for the first time, along with their preschool children, in the summer of 1968. Parents were interviewed twice on a "pre- and post-test" basis to ascertain changes in general morale associated with the effects of receiving homemaking and/or child development services during the pre- and post-test interim.

Subjects

During the summer of 1968, Project parents were selected for this study on the basis of the following criteria: (a) The family must have entered the Project for the first time between June 1, 1968, and August 31, 1968. (b) No child in the family could have entered a Project child development center prior to June 1, 1968, or later than August 31, 1968. (c) The family had to be actively participating in the Project at the time of the pretest interview.

A total of 208 parents and parent surrogates (grandparents caring for Project children on a full time basis) were found to be eligible for the sample.[1] Of these, 98 were male and 110 were female. These

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[1]The sample was originally intended to be restricted to newly enrolled parents of children who had attended a child development center no more than 25 days prior to the first administration of the Morale Scale. These criteria were relaxed when it was discovered that a total of 63 center days had elapsed from June 1 - August 31, 1968.

parents were scheduled for interviewing. A total of 115 parents were actually seen during the scheduled pretesting interview period. Table 42 summarizes according to county of residence and sex of parent the numbers of eligible parents and those actually interviewed. Table 43 summarizes the reasons eligible parents were not seen.

Following the initial administration of the Morale Scale, data for 11 parents (six males and five females) were discarded due to evidence of non-cooperation with the interviewer, failure to understand instructions, or incomplete data. These exclusions resulted in a sample of 104 parents (21 of whom were from the same family) for whom complete pretest data were available.

TABLE 42: HYPOTHESIS 7: ELIGIBLE PROJECT PARENTS SCHEDULED AND ACTUALLY INTERVIEWED ON THE MORALE SCALE ACCORDING TO COUNTY OF RESIDENCE AND SEX OF PARENT. PRETEST.

County[1,2]	Males	Females	Total
Elliott	(13) 4	(16) 14	(29) 18
Floyd	(12) 5	(12) 7	(24) 12
Knott	(4) 1	(5) 3	(9) 4
Lee	(12) 1	(13) 13	(25) 14
Letcher	(6) 2	(6) 5	(12) 7
Magoffin	(7) 4	(9) 9	(16) 13
Morgan	(9) 2	(9) 5	(18) 7
Owsley	(20) 7	(23) 17	(43) 24
Wolfe	(15) 5	(17) 11	(32) 16
TOTALS	(98) 31	(110) 84	(208) 115

[1]Harlan County did not enroll new families during the June 1 - August 31, 1968, period and therefore no parents from that county could be included in this study.

[2]Numbers in parentheses indicate the number of eligible parents scheduled for interviewing.

TABLE 43 : HYPOTHESIS 7: SUMMARY OF REASONS 103 PROJECT PARENTS SCHEDULED FOR MORALE SCALE PRETEST WERE NOT INTERVIEWED.

Reasons[1]	N
Working (working two jobs, irregular hours, working out of town or out of state)	46
Temporarily unavailable (personal problems, hospitalized, on vacation, or out of town)	42
Permanently unavailable (moved, deceased, leaving or left Project)	15
Uncooperative (refused to allow interview or repeatedly failed to appear for interview)	50
TOTAL	153

[1]The number of reasons exceeds the number of parents because several attempts were made to locate some parents or to reschedule their interviews.

In order for parents to be eligible for the follow-up interview, the following criteria had to be met: (a) Parent(s) and child(ren) had to be enrolled in the Project at the time of interviewing. (b) Their child(ren) had to have attended a child development center a minimum of sixty days during the five month interim[1] between pre- and post-test interviews. (c) Those parents designated to receive homemaking services had to be visited by a Homemaker during each month of the five month interim period. (d) Pretest interview data had to be complete and considered adequate for analysis.

Table 44 presents a summary of the reasons 71 parents (22 males, 49 females) were not reinterviewed at the time of post-testing in February, 1969. The number of parents interviewed on the initial and follow-up administrations of the Morale Scale is presented in Table 45

[1]The originally proposed four and one-half month interim was exceeded due to scheduling problems and delays in obtaining attendance records for some children of parents in this sample.

according to county of residence and sex of parent. According to this table, only 44 parents (nine males and thirty-five females) remained in the sample following both administrations of the Morale Scale. Of these 44 parents, seven were from the same family, i.e., were husband and wife. All parents interviewed twice were Caucasian.

TABLE 44: HYPOTHESIS 7: SUMMARY OF REASONS PROJECT PARENTS WERE EXCLUDED FROM THE FOLLOW-UP (POST-TEST) ADMINISTRATION OF THE MORALE SCALE.

Reason	Males	Females	Total
Initial (Pretest) data were incomplete or unusable	6	5	11
Did not meet* criteria for Homemaking or non-Homemaking groups or for child's CDC attendance	3	8	11
Withdrew* from Project	5	29	34
Unavailable due to scheduling problems, personal problems, or refusal to cooperate	8	7	15
	22	49	71

*Some of these parents were excluded after the post-test interview had been administered due to a delay in obtaining information on child attendance and Project status.

TABLE 45 : HYPOTHESIS 7: PROJECT PARENTS ADMINISTERED THE MORALE SCALE AT PRE- AND POST-TESTS ACCORDING TO COUNTY OF RESIDENCE AND SEX OF PARENT.

County	Males	Females	Total
Elliott		5	5
Floyd	4	5	9
Knott		1	1
Lee		5	5
Letcher	1	3	4
Magoffin	1	5	6
Morgan		1	1
Owsley	1	5	6
Wolfe	2	5	7
	9	35	44

The major predictions advanced in Hypothesis 7 were concerned with comparisons between Project parents interviewed twice on the Morale Scale in terms of whether they received homemaking services under the auspices of the Project in addition to child development services for their children (Homemaking Group) or whether their participation in the Project was limited to their child(ren)'s enrollment in the child development program (Non-Homemaking Group). Table 46 presents a summary of the sample of Project parents interviewed on pre- and post-test according to the type of Project services received.

TABLE 46: HYPOTHESIS 7: PROJECT PARENTS INTERVIEWED TWICE ON THE MORALE SCALE: HOMEMAKING AND NON-HOMEMAKING GROUPS ACCORDING TO THE SEX OF PARENT.

	Parents Receiving Child Development Services Only (Non-Homemaking Group)		Parents Receiving Child Development and Homemaking Services (Homemaking Group)	
	Males	Females	Males	Females
	6	23	3	12
TOTAL:	29		15	

Instrument

The Morale Scale (Rundquist and Sletto, 1936) was used to assess general outlook on life as part of a battery of six scales developed to determine the effects of unemployment during the Depression upon the personality and family life of young people. Constructed according to Likert's general method of internal consistency, the original form of the Morale Scale (see Appendix K) consists of 22 statements with which the respondent is asked to express his disagreement or agreement according to a five point scale. The extremes of the scale represent the strongest attitudes ("strongly agree" or "strongly disagree") whereas the mid-point of the scale reflects a neutral ("undecided") view. Item scores are weighted so that the highest score (5) indicates low morale, i.e., agreement with pessimistic, fatalistic statements or disagreement with optimistic statements. Correspondingly, low item scores (1,2) are associated with high morale. A low total score on the Morale Scale is indicative of high morale, whereas a high total score is interpreted as low morale. On the original form of the scale which contains equal numbers of positively and negatively phrased items, total scores may range from 22 - 110. A person who consistently endorsed the "undecided" viewpoint would obtain a score of intermediate value (e.g., around 66 points).

In the present study, it was proposed that the Morale Scale be used in its original form. However, approval by the Head Start Office of Research and Evaluation was contingent upon making the following revisions: (a) the word "black" in item 2 be changed to "dismal," (b) item 21 be omitted, and (c) item 22 be changed by dropping the words "plan on marrying," and substituting the words "make any plans." These suggested revisions were incorporated in the revised form of the Morale Scale containing 21 statements (11 negative, 10 positive) which is presented in Appendix L along with the instructions used to introduce

and administer the scale. These changes altered the range of possible scores so that respondents in this study could obtain total scores ranging from 21 - 105. Again, the person who consistently was "undecided" would earn a total score of 63 on the revised form of the Morale Scale used in this study.[1]

Procedure

Four staff members of the Research Division (three males and one female) conducted the initial Morale Scale interviews during the last two weeks of August, 1969. In general, interviewing took place in the Project county offices or child development centers. Project Social Workers and Homemakers assisted by contacting, scheduling, and in some cases, bringing parents in for their interview. The difficulty in scheduling some parents for interviews resulted in delays which extended the interviewing period several days beyond what had been anticipated. Every attempt was made to secure as many of the scheduled interviews as possible. This meant going to homes (although the Research Division staff had specifically requested that interviews not be conducted in homes unless no alternative was possible) and places of employment as well as interviewing parents during the evening hours. Interviewers made special trips back to some counties in order to see parents who had failed to appear for their interviews when they were originally scheduled.

Follow-up interviews (post-test) were conducted by two male Research Division staff members during the first two weeks in February, 1969.[2] As before, interviewing was conducted in the county offices or other nearby facility such as a child development center. Again the assistance of the Project Social Workers and Homemakers was utilized in scheduling parents and transporting (as needed) them to the interviewing site.

In all cases, each parent was seen individually and privately[3] by the interviewer. Along with the introductory remarks (see Appendix L used to explain the purpose of the interview, the response alternatives of "Strongly Agree," "Agree," "Undecided," "Disagree," and "Strongly Disagree" were printed on a cardboard strip which the interviewers used to emphasize the range of response alternatives and to discourage response set.

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[1]Or who was maximally inconsistent, i.e., endorsed high and low morale viewpoints throughout the interview.

[2]One parent had to be interviewed in mid-March at the time of CAT testing (see Section II, Hypotheses 3-5) since she was unavailable during February.

[3]Except for a few instances in which an infant or small child was present.

Morale Scale items were administered orally due to the widespread functional illiteracy of these adults. According to standard procedures established for this study, each item was read twice to the respondent who was then asked whether and to what degree he agreed or disagreed with the statement. (The examiner repeated all five response alternatives while pointing to the cardboard strip.) In the event the respondent didn't appear to understand the item, it was repeated again or alternate wording (see Appendix L) was employed if it had been devised for the item in question. Although interviewers did follow standard procedures for administering the modified version of the Morale Scale, they also attempted to establish rapport and to ease any respondent anxieties about the situation before they began administering the actual items. Administration of this scale usually required no more than ten minutes.

Use of the norms established for the Morale Scale by Rundquist and Sletto (1936) was precluded due to the revisions employed in the present study. There is also a lack of similarity between respondents in this study and those comprising Rundquist and Sletto's standardization sample.[1] Thus, analysis of scores obtained in the present study was limited to a comparison between those parents and parent-surrogates who received homemaking services for a period of at least four and one-half months prior to retesting, and those who did not receive homemaking services during the four and one-half month interim.

RESULTS

Descriptive Findings

The number of visits by Homemakers, the number of hours of homemaking services received, child(ren)'s CDC attendance, and the number of hours volunteered at a Project center were computed separately for parents interviewed in the pretest Morale Scale sample and parents for whom pre- and post-test data were obtained. Table 47 presents this information for the 104 parents interviewed at pretest. The same information is summarized in Table 48 for the 44 parents who were interviewed twice on the Morale Scale. In addition, Table 48 presents statistics for each of these variables for the interim period between pre- and post-test interviews and for the total period (from intake to post-test), whereas information in Table 47 applies only to the period from initial intake to pretest interview.

A comparison of the data presented for parents interviewed once (n=104) and those interviewed twice (n=44) suggests the two groups[2] are comparable with respect to homemaking visits and hours, children's

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[1]Their sample was comprised mainly of unmarried persons under 25 years of age who were enrolled in high school or college.

[2]It must be remembered that 44 parents are included in both groups.

TABLE 47: HYPOTHESIS 7: SUMMARY OF HOMEMAKING SERVICES, CDC ATTENDANCE, AND VOLUNTEER PARTICIPATION PRIOR TO THE INITIAL ADMINISTRATION OF THE MORALE SCALE. PROJECT PARENTS (n=104).

	N	Mean	SD	Median	Range
Homemaking Visits[1]	28	6.29	3.10	6.00	1-12
Homemaking Hours[1]	28	13.36	8.01	13.00	1-36
CDC Attendance[2] (in days)	104	28.22	9.09	30.43	0-42
Volunteer Hours[3]	28	13.00	13.38	10.25	1-58

[1]Includes only those parents whose families were designated to receive homemaking services. Only 21 parents interviewed were from the same family, therefore data are based upon individual parents, not families.

[2]Where more than one child in the family was enrolled, CDC attendance was taken as the most days attended by one or more children of that family.

[3]Includes only those parents with some volunteer experience. The vast majority (n=72) had no prior volunteer experience.

TABLE 48 : HYPOTHESIS 7: SUMMARY OF HOMEMAKING SERVICES, CDC ATTENDANCE AND VOLUNTEER PARTICIPATION (PRIOR, INTERIM, TOTAL). PROJECT PARENTS INTERVIEWED TWICE ON THE MORALE SCALE (n=44).

	N	Mean	SD	Median	Range
Prior Homemaking Visits[1]	15	6.27	3.11	7.00	1-11
Prior Homemaking Hours	15	13.80	7.66	15.00	1-25
Interim Homemaking Visits	15	21.87	6.21	21.00	13-39
Interim Homemaking Hours	15	52.93	11.40	54.00	29-68
Total Homemaking Visits	15	28.13	7.09	31.00	18-41
Total Homemaking Hours	15	66.73	14.95	72.00	31-84
Prior CDC Attendance[2] (in days)	44	32.07	5.46	32.75	20-42
Interim CDC Attendance	44	81.34	6.71	83.20	63-93
Total CDC Attendance	44	113.41	9.22	112.50	95-132
Prior Volunteer Hours[3]	17	17.26	15.56	14.00	1-58
Interim Volunteer Hours	23	15.46	15.18	10.00	1-61
Total Volunteer Hours	25	26.48	28.62	19.00	1-118

[1] Includes only those parents designated to receive Homemaking services. Only seven parents were from the same family; therefore data are based upon individual parents, not families.

[2] Where more than one child in the family was enrolled, CDC attendance was taken as the most days attended by one or more children of that family.

[3] Includes only those parents with volunteer experience which occurred in the specified time period.

CDC attendance and volunteer hours prior to the initial interview. However, it can be seen that the group interviewed twice tends to have slightly higher means and medians in each category, especially in terms of volunteer participation. This may indicate that the follow-up sample of 44 parents was somewhat more interested and involved in the Project than were the 60 parents seen only once. It is obvious that some sort of selection factor(s) did operate in this study, given the large numbers of eligible parents for whom interview data could not be obtained. Referring back to Table 46, it appears that fewer Non-Homemaking Group parents were lost from the overall sample. This may be a function of the lower functional adequacy of families for whom Homemaking services are recommended.

It may be seen from the data in Table 48 that those parents whose families received Homemaking services were visited more than once a month during the five month interim period. Average attendance at a child development center during the interim for children of parents interviewed twice was in excess of the 60 day minimum required. Over half of the parents interviewed twice served as volunteers in a Project center sometime from the point they entered the Project until the completion of the second Morale Scale Interview, although there appears to be great variability in the amount of volunteer time these parents gave.

Results for Hypothesis 7 Predictions

Although direct tests of the predictions made in Hypothesis 7 were restricted to the sample of Project parents interviewed twice on the Morale Scale (n=44), analysis of the Morale Scale scores earned by the larger sample tested only once (n=104) was also done in order to learn if sample attrition between interviews contributed to changes in sample performance. The general statistical test employed for these analyses was the Median Test except in those instances where use of Fisher's Exact Test of Probability (Siegel, 1956) was indicated due to the occurrence of expected cell frequencies less than five. Analysis of change from pre- to post-test within subject groups was assessed by the Sign Test. The level of significance chosen for all of these analyses was $\rho < .05$.

A Comparison of Project Parents Receiving Homemaking Services and Those Receiving Only Child Development Services for Their Children

The major prediction advanced in Hypothesis 7 was that newly enrolled Project parents assigned to receive child development and homemaking services would not differ initially[1] in terms of their general morale from other newly enrolled Project parents assigned to

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[1]Although not expressly stated, this prediction seems to be implied by the logic underlying most pre- and post-test comparisons.

the child development program only. However, it was anticipated that following a four and one-half month interim (in this case five months), parents receiving both homemaking and child development services would show a greater increase in general morale than other parents whose major contact with the Project was through their child(ren)'s attendance at a child development center.

When the initial Morale Scale total raw scores of all parents interviewed at pretest (n=104) were compared by the Median Test, those designated to receive child development and homemaking services (n=28) did not differ from those who were only sending their children to a Project center (n=76). However, when the same pretest data from the sample administered the Morale Scale twice (n=44) was analyzed, it was found that those parents designated for child development and homemaking services (n=15) differed significantly from those parents (n=29) not designated to receive homemaking services ($\chi^2 = 4.14$, df = 1, $p < .05$, two-tailed test). That is, the Homemaking Group tended to score higher on the pretest administration of the Morale Scale than the Non-Homemaking Group. Higher scores on this scale are interpreted as indicative of low morale, therefore those parents tested twice and who were designated to receive homemaking services initially appeared somewhat lower in morale than other parents tested twice who were not deemed in need of homemaking services.

When the post-test total Morale Scale raw scores of the Homemaking and Non-Homemaking groups were compared, no significant differences emerged. Similarly, there were no significant differences between these groups in the amount of change (gain or loss) they showed when the difference between their pre- and post-test total Morale Scale raw scores served as the dependent variable. Finally, when the Sign Test was employed to determine if either or both groups showed a significant within-groups change in general morale during the five month interim, no significant effects were found.

Table 49 presents a summary of the Morale Scale scores (medians and ranges) earned by the total sample tested twice (n=44) and by those parents receiving child development and homemaking services (Homemaking Group, n=15) or only child development services (Non-Homemaking Group, n=29) during the interim. These data serve to illustrate the findings of the statistical analyses. That is, the total sample appears quite heterogeneous with respect to the range of obtained scores, even though the median total scores earned on pre- and post-test are virtually identical and the median difference score, based upon pre- to post-test change, indicates little or no change. The Homemaking Group appears to be somewhat lower in general morale (i.e., attained higher median scores) on both pre- and post-test although the heterogeneity within both groups prevents such differences from attaining significance.

TABLE 49: HYPOTHESIS 7: TOTAL MORALE SCALE RAW SCORES (MEDIANS AND RANGES) OF PROJECT PARENTS INTERVIEWED TWICE. PRE- AND POST-TESTS.

	Pretest Total Score		Post-Test Total Score		Pre- to Post-Test Change	
	Median	Range	Median	Range	Median	Range
Total Sample (n=44)	60	34-80	60	22-85	-1	(-23)-(+26)
Homemaking Group (n-15)	62	46-70	66	50-76	+1	(-8)-(+21)
Non-Homemaking Group (n=29)	58	34-80	58	22-85	-4	(-23)-(+26)

Additional Analyses

The same design described above was used to compare the general morale of Project parents on pre- and post-test and in terms of pre- to post-test change according to: (a) sex of parent, (b) volunteer participation of parent (prior to pretest, during the interim and overall), and (c) child's attendance at a child development center (prior to pretest, during the interim and overall).[1] In no instance did any of these analyses produce significant findings. Although it was of interest to compare the responses of parents with those of parent surrogates (grandparents) there were too few of such surrogates included in the sample tested twice to permit statistical comparisons.

In sum, it appears that the predictions in Hypothesis 7 were not confirmed by these data. Project parents assigned a Homemaker in addition to enrolling their child(ren) in the child development program did not improve more in their general morale (as assessed by the Morale Scale) after receiving these combined Project services for five months in comparison with other newly enrolled parents who only participated in the child development program. Nor was there any evidence that either group improved significantly in general morale during the interim between administrations of the Morale Scale.

[1]For (b) and (c) comparison groups were constituted using a median split for the independent variable in question.

It should be noted, however, that among those parents tested twice, there was an initially significant difference in morale between the parents designated for homemaking services and parents not deemed to be in need of this assistance. The fact that the two groups no longer differed on pre-test suggests that the effect of homemaking services during the interim was to make the Homemaking Group more like the Non-Homemaking Group. However, inspection of the data makes it clear that parents in both groups differed greatly in their responses to the Morale Scale items and therefore little can be concluded from these data as to the differential effects of receiving homemaking and child development services or child development services alone.

DISCUSSION

The lack of significant differences and the evidence of within-groups variability in this study both suggest that the Morale Scale may have been a poor choice of instrument to assess the effects of Project homemaking services when they are offered in addition to the more typical Head Start child development program. It has been reported in a previous evaluation of the Rural Child Care Project (Briscoe and Archambo, 1969) that Project parents tended to respond inconsistently on a questionnaire (concerning attitudes toward child rearing) which also employed a five-point (fixed) response scale. This inconsistency manifested itself in a tendency for Project parents to endorse both extremes of the response scale on items with similar content (i.e., presumed to measure the same variable). Although this type of finding may reflect a lack of validity in the scale itself, it is perhaps more plausible, given the present findings, to assume such findings reflect the difficulty these parents have relating to the interviewing situation, the interviewer, and to item content. In other words, reading items to respondents or attempting to simplify their wording is not sufficient to overcome the pervasive effects of functional illiteracy in this population. The lack of "test-taking sophistication" among these people, coupled with their understandable reluctance to participate wholeheartedly in something which does not seem immediately relevant to their previous contacts with the Project, are other factors which can obscure differences in general outlook which may exist between the Homemaking and Non-Homemaking groups.

It is recommended in future evaluations of program effectiveness with similar populations that interviews and questionnaires incorporate more open-ended items and that their content be more relevant to what the parent has experienced in the program. In addition, it is probably necessary to do direct training of program personnel in effective ways to elicit parental cooperation for evaluation studies without biasing the results.

Although the Rural Child Care Project personnel were cooperative in carrying out the general procedures for scheduling parents to be interviewed, there were many indications that they were distinctly uneasy about "evaluators" coming into their counties and this feeling was communicated in turn to the parents. While it is necessary to retain objectivity in evaluations, it is equally important to identify and attempt to reduce such sources of bias which may not be immediately apparent to the outsider. Study after study in which Project parents have been involved has illustrated the simple fact that Project personnel do not view program and evaluation efforts as directed toward common concerns and objectives, whereas the orientation of the Research staff has been to find increasingly effective methods of determining what is effective and what needs improving in Project services. Perhaps it will become easier to resolve this basic source of conflict between program and evaluation staffs when evaluation results can feed directly into the improvement of services. To date, the focus upon follow-up evaluation of former participants and the effects of current program services upon parents rather than children has prevented such feedback from being generated in other than rather negative and overly generalized ways.

VII. Hypothesis 8: First and Second Grade Elementary School Teacher Evaluations of the Rural Child Care Project.

Hypothesis 8 states that,

> "Elementary school teachers in Project county schools who have had a moderate degree of exposure to former Project children will be generally favorable in their attitudes toward the Project and will rate former Project children significantly higher in achievement and in eagerness to learn than a comparable group of non-Project elementary school children. In addition, in those schools having relatively high proportions of former Project children enrolled in grades one and two, the teacher will attribute improvements in the school curricula and the advent of accelerated programs--if such exist--to the impact of the Rural Child Care Project."

METHOD

The purpose of this aspect of the 1968-1969 Rural Child Care Project evaluation was to determine whether teachers of first and second grade classrooms in school districts where former Project children reside see any qualitative differences in school related behaviors between them and other disadvantaged children who did not attend a full-year preschool program.[1] An interview was designed for this purpose by Research Division staff members and administered to a sample of teachers shortly after the opening of school in the fall of 1968.

Subjects

First grade teachers eligible for inclusion in this study must have taught first grade in their present school since 1966, the first year that Project children entered public schools. In addition, their 1967-1968 first grade classroom had to consist of twenty per cent or more former Project participants.

Second grade teachers were selected for interviewing if they had taught in their present school since 1967, the first year that former Project children were enrolled in second grade. They also had to have a minimum of twenty per cent former Project participants in their 1967-1968 second grade classrooms.

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[1] At most, such children may have attended a six to eight week summer Head Start program.

These criteria were based upon a survey conducted by the Research Division in the spring of 1968 which indicated that sixteen schools located in counties served by the Project had first and second grade classrooms containing one-fifth or more former Project participants. The survey also indicated that in nine of these sixteen schools former Project children accounted for thirty-three per cent or more of the total first and second grade enrollment. Accordingly, teachers with 1967-1968 classrooms containing twenty per cent former Project participants were to receive Interview Schedule I, whereas those teachers whose 1967-1968 classrooms had one-third or more former Project enrollments were given Interview Schedule II (see section). Interview Schedule I was designed to evaluate the first part of Hypothesis 8, whereas Interview Schedule II included items focussed upon the latter part of Hypothesis 8.

Table 50 lists the number of first and second grade teachers actually interviewed out of the total number of first and second grade teachers at each target school. Tables 51 and 52 summarize the reasons why certain teachers were not interviewed. The numbers of first and second grade teachers administered Interview Schedule I only or both Schedules I and II are presented in Table 53.

Thus, of the 24 teachers interviewed, 18 received both Schedules I and II and six teachers received only Schedule I. Twenty-three of the 24 teachers interviewed were females. All teachers were Caucasian and ranged from 24 to 60 years of age (estimated; ages were not asked).

Instrument

The Teacher Interview Schedules I and II (see Appendices M-N) was devised by members of the Research Division staff. Permission to use this instrument was obtained from the OEO Office of Head Start Research and Evaluation prior to its administration to the teacher sample.

Schedule I was designed to test the first part of Hypothesis 8. This part of the interview was administered to all teachers in the sample. Items ask for the teacher's evaluation of former Project children compared to disadvantaged non-Project children in terms of school readiness, progress in school, social and emotional maturity, eagerness to learn, leadership, friendliness, ability to make good grades, willingness to pay attention, need for discipline, and parent attitudes. Teacher attitudes toward the Rural Child Care Project itself were also solicited. Most items involving assessment of Project children contained two parts - the first focussed upon past school years while the second part asked about the teacher's present classroom. Because the interview was administered soon after the beginning of the school year, many teachers honestly felt they could only answer the first part of these questions. Therefore, data analyses are confined to comparisons based upon 1966-1968 classrooms.

TABLE 50: HYPOTHESIS 8: TARGET SCHOOLS FOR TEACHER INTERVIEWS: COUNTY, SCHOOL AND GRADE SUMMARY OF TEACHERS INTERVIEWED

County	School	Available Teachers		Interviewed Teachers	
		First Grade	Second Grade	First Grade	Second Grade
Elliott	Sandy Hook Elementary*	2	2	1	2
Elliott	Isonville Elementary	2†	1	1	1
Floyd	McDowell Consolidated Elementary*	3	3	2	0
Harlan	Black Mountain Elementary*	1	1	0	0**
Knott	Jones Fork Elementary	1	1	0	0
Lee	Southside Elementary*	1	1	1	1
Lee	St. Helens Elementary	1	1	0	0
Letcher	Blackey Elementary	1	1	0	0
Letcher	Fleming-Neon Elementary	2	2	0	0
Magoffin	John T. Arnett Elementary*	1	1	1	1
Morgan	Cannel City Elementary*	1	1	1	1
Morgan	Ezel Elementary*	3†	1	2	1
Owsley	Booneville Elementary*	3	3	3	2
Owsley	Sturgeon Elementary	1	1	1	0
Wolfe	Red River Valley Elementary	2	1	1	0
Wolfe	Wolfe County Elementary*	4	4	1	0
	TOTALS:	29	25	15	9

TOTAL TEACHERS AVAILABLE: 54
TOTAL TEACHERS INTERVIEWED: 24
TOTAL TEACHERS NOT INTERVIEWED: 30

*Schools where former Day Care participants comprised 33 per cent or more of 1967-1968 first and/or second grade classes. Both Teacher Interview Schedules I and II given.

†One teacher of this group is teaching another grade this year but did teach first grade during 1966-1968, and was interviewed as a first grade teacher.

**One second grade teacher was interviewed but eliminated from the sample when it was discovered she had taught both first and second grades in the last three years and she did not answer with respect to second grade alone.

TABLE 51: SCHOOLS WHERE NO INTERVIEWS WERE CONDUCTED

County	School	Reasons Interviews Were Not Conducted
Knott	Jones Fork Elementary	All Available Teachers Had Taught Combined Grades During 1967-1968
Lee	St. Helens Elementary	All Available Teachers Failed To Meet Sample Criterion
Letcher	Blackey Elementary	Available Teachers Either Taught Combined Grades Or Could Not Identify Former Project Children
Letcher	Fleming-Neon Elementary	Available Teachers Could Not Identify Former Project Children

TABLE 52: HYPOTHESIS 8: SUMMARY OF THE REASONS FOR WHICH AVAILABLE TEACHERS WERE NOT INTERVIEWED

Reason Not Interviewed	1st Grade Teacher	2nd Grade Teacher	Totals
Failed To Meet Sample Criterion	9	7	16
Could Not Identify Former Project Children	2	6	8
Teaches Combined Grades	2	2	3
In Hospital	0	1	1
Wife of RCCP Employee	0	1	1
TOTALS:	13	17	30

TABLE 53: HYPOTHESIS 8: FIRST AND SECOND GRADE TEACHERS WHO RECEIVED SCHEDULE I ONLY, OR BOTH SCHEDULES I AND II

	1st Grade Teacher	2nd Grade Teacher	Totals
Schedule I Only	4	2	6
Schedules I and II	11	7	18
TOTALS:	15	9	24

Schedule II was administered to those teachers whose classrooms contained more than 30 per cent former Project children. These items assessed whether there had been any changes in curriculum since 1966 and if so, whether teachers associated these changes with the presence of Project children. Other items probed their attitudes about teaching disadvantaged children.

Procedure

Field testing of the Teacher Interview was done on Friday, September 13, 1968, at two elementary schools in Wolfe County. Remaining interviews were conducted during the week of September 16-20 and on September 26. All teachers were seen individually by one of three male members of the Research Division staff who had been trained beforehand in the use of standard procedures. Interviewing took place in empty classrooms or elsewhere in school buildings during classroom hours according to arrangements made with each principal and the teachers involved.

Prior to beginning the actual interview, each teacher was asked to give the number of former Project children and other disadvantaged children in her classroom for the last two (or three if she was teaching first grade) years. This procedure verified the percentage of former Project participants in the teacher's classroom and made it apparent if the teacher could identify Project children. If she could not, she was considered ineligible for the sample, although each interview begun was completed in order not to offend anyone.

During the interview, the Research Division staff read each item aloud to the teacher and recorded her responses. Provisions for probing were incorporated into most items. All teachers were asked several questions regarding their personal background and teaching experience at the end of the interviewing session. Those given both Schedules I and II usually required an hour to complete the interview, whereas Schedule I alone usually took 45 to 50 minutes. Teachers receiving both Schedules always were given Schedule I first.

Scoring of the Teacher Interview was straightforward with respect to most items where the respondent answered "yes", "no", or "don't know". When examples were called for, or where questions were open-ended, empirically derived scoring categories were used to summarize the data. In order to determine the reliability of these categories, two members of the Research Division staff each scored ten interviews independently (five of Schedule I and five of Schedule II). Per cent agreement of 92.2 was obtained between the two scorers for the empirical categories, i.e., those items on which scorer disagreements were possible. Before all data were coded, any ambiguous categories were reworked to resolve scorer disagreements.

RESULTS

First and second grade teachers interviewed on both schedules (I and II) or only on Schedule I did not differ with respect to their teaching experience. For the total sample (n=24), the average number of years of teaching experience was 15.83 (SD = 8.77, range = 4 - 36 years).

Results of the Teacher Interview are reported in three sections. First, a description of answers given by the total sample to Schedules I and II is presented. Then, comparisons between teachers of classrooms with 20 per cent former Project participants (Schedule I only) and teachers of classrooms with 30 per cent or more former Project participants (Schedules I and II) and comparisons between first and second grade teachers are presented.

Schedule I

A complete breakdown of answers given by the teacher sample to Schedule I is presented in Appendix O. One sample Chi square tests were performed on each item to determine if the obtained distributions of responses differed from chance.[1] The chosen level of significance for all analyses was $p < .05$.

General findings obtained on Schedule I supported the predictions advanced in the first part of Hypothesis 8. That is, first and second grade teachers reported favorable attitudes toward the Rural Child Care Project and more favorable evaluations of former Project children than of similarly disadvantaged non-Project participants.

Specifically, the majority of teachers in this sample said that former Project children in their classrooms were superior to other disadvantaged children who didn't attend the Project in the following areas: readiness for first grade (66.7%, $\chi^2 = 27.0$, df = 3, $p < .001$), emotional and behavioral maturity (66.7%, $\chi^2 = 13.0$, df = 2, $p < .01$), making friends (70.8%, $\chi^2 = 27.67$, df = 3, $p < .001$), competativeness and leadership (75.0%, $\chi^2 = 34.33$, df = 3, $p < .001$), eagerness to learn (66.7%, $\chi^2 = 14.25$, df = 2, $p < .01$), classroom recitation and participation (83.3%, $\chi^2 = 28.0$, df = 2, $p < .01$), ability to obtain good grades in some subjects but not all, and the interest shown in the child by his family (70.8%, $\chi^2 = 30.33$, df = 3, $p < .001$).

Lest the preceeding findings appear to be purely the results of a positive response bias, it must be noted that 45.8% of the teacher sample also reported that former Project children required more discipline and were poorly behaved in the classroom. Teachers were evenly divided as

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[1]Item frequencies and two-sample Chi square tests between Schedule I only and Schedules I and II and first and second grade teachers were computed at the University of Kentucky Computing Center.

to whether or not Project children were more willing to listen while they gave instruction to the class. They also split evenly concerning whether Project children were more able generally to obtain good grades.

All but three teachers (12.5%) could identify accurately one or more goals of the Project. The majority reported they felt the Project was successful in achieving its goals (87.5%, $\chi^2 = 31.75$, df = 2, $p < .001$) and that such projects are a "good" idea (83.3%, $\chi^2 = 27.0$, df = 2, $p < .001$).

The most frequently mentioned changes recommended by these teachers were: (a) expansion of the program (41.7%), (b) increase the discipline of the children (25.0%), and (c) upgrading of child development staff qualifications and training (16.7%). However, they were split over whether Project staff should be certified as teachers.

Most respondents favored opening the Project and other Head Start programs to all children rather than limiting them to poor children (79.2%, $\chi^2 = 8.17$, df = 1, $p < .01$). These teachers endorsed federal and local funding of Head Start programs almost equally, although many recognized that local funds are not available for such programs.

Schedule II

Generally speaking, the prediction that teachers (n=18) of classrooms with more than 30 per cent former Project children would attribute curriculum changes to the presence of these children was not confirmed by the results of Schedule II.[1] As a group, the majority of teachers did not report curriculum changes since 1966. Those who did indicate changes in the curriculum (n=8) did not attribute the changes to the influence of the Project. Although the majority of teachers did say they have been able to present new material more rapidly since 1966 (77.7%, $\chi^2 = 5.56$, df = 1, $p < .02$), they again attributed this change to many factors, including summer Head Start, the Project, better methods and materials and television. The majority of teachers indicated there were no new special classes in their grades (83.4%, $\chi^2 = 8.0$, df = 1, $p < .01$) nor did they as a group report that changes had occurred in the freedom of expression permitted children in the first two grades. However, among those teachers who reported that their attitudes towards teaching disadvantaged children had changed positively since 1966 (50%) all but one attributed this change to the presence of Project and summer Head Start children in their classrooms (Binomial Test, $p < .02$).

Schedule I Versus Schedule II Respondents

It was predicted that teachers from schools with the highest concentrations of former Project children (over 30 per cent) would be more positive in their evaluation of former Project children and in their attitudes towards the Project than teachers in schools with a lower

[1]See Appendix P for a detailed presentation of these results.

proportion of former Project participants (20 to 30 per cent). Two sample Chi square tests were performed to determine if responses given to items of Schedule I of the Teacher Interview differed between these groups. In no instance were significant differences obtained. Therefore, the above prediction is disconfirmed.

First Grade Teachers Versus Second Grade Teachers

The responses of first and second grade teachers to Schedules I and II were compared to determine if they differed in their attitudes toward the Project or their evaluation of former Project children. Only one significant difference was obtained. On Schedule I, item 4, first grade teachers were more favorable in their evaluation of the ability of Project children to make friends ($\chi^2 = 11.32$, df = 1, $p < .001$). No other differences were obtained.

DISCUSSION

The results of the Teacher Interview confirm the prediction that first and second grade teachers of classrooms containing 20 per cent or more former Project children will evaluate these children and the Project favorably. The prediction that these same teachers would attribute positive changes in first and second grade curricula to the presence of Project children in their classes was apparently an oversimplified expectation. The influence of the Project was not mentioned more often than a number of other influences as contributing to better classroom conditions. Finally, within this sample, it makes little difference in teacher attitudes or evaluations whether there are 20 per cent or more than 30 per cent former Project children in the classroom.

The generally favorable responses of teachers to the interview items suggests that they may have felt obliged to say only "good" things about the Project. However, the observation that Project children present discipline problems and their recommendations regarding Project changes suggest that they were willing to express some negative views. Their recommendations that the Project be expanded and that child development staff and training be upgraded are in one sense expressions of approbation. They would not make such suggestions unless they were convinced of the Project's essential worth.

The fact that almost half of the teachers found they had to discipline Project children more raises the question of what behavior on the part of these children required discipline. It has been generally observed that many teachers, especially in first grade, have found it difficult to adjust to Head Start children who talk and ask questions where before such children came to school with a more passive orientation. Nearly half of the teachers also reported that Project children were less likely to listen during instruction, which may reflect the problem some teachers have dealing with a more expressive group of children.

Judging from informal reports[1] about initial antagonisms public school teachers expressed toward the Project, the results of this interview indicate the Project has made progress in establishing a positive image among professional public school teachers in Project counties. It would be worthwhile for Project staff to ascertain more about the nature of the discipline problems which former Project children present to some school teachers. In this way, perhaps more effective preparation for entry into public school can be provided during the last few months a child is enrolled in a Project center.

It is noteworthy that although Project children did not score higher than non-Project children on standardized achievement tests (see Section II, Hypotheses 3-5) they were rated more highly in many academically related areas than other disadvantaged children by their classroom teachers. Assuming this finding is not the result of some positive response bias on the part of teachers interviewed for this study, it may be concluded that there are important factors which go into a teacher evaluation that are not assessed on standardized tests. One of these is undoubtedly the child's orientation toward adults and other children which are important aspects of the Head Start experience.

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[1]From Project personnel based upon their experience during the first two years of the Project.

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HYPOTHESIS 1-2

1968-1969

Appendix A

Kentucky Child Welfare Research Foundation
P. O. Box 713
Frankfort, Kentucky 40601

QUESTIONNAIRE ON REASONS FOR RETENTION

Child's Name _____ ID# _____ Retained Grade 1__ 2__

Sex _____ Date of Birth _____ Teacher's Name _____

County _____ School _____

Check (✓) below the reason or reasons for which the above child was not promoted:

_____ Child was too young (entered below the minimum age)

_____ Child was socially immature (unable to play, make friends, get along with others)

_____ Child was emotionally immature (overly shy, passive, timid, withdrawn)

_____ Child was a behavior problem (overly aggressive, disruptive, noisy, inattentive)

_____ Child was emotionally disturbed (extreme depression, fearful)

_____ Child had a physical health problem which caused chronic or frequent absences

_____ Child was neglected, abused or malnourished to extent that he (she) was unable to learn

_____ Child was intellectually slow (or suspected mental retardation)

_____ Child was physically handicapped in learning (blindness, deafness, etc.)

_____ Child was chronically absent because family moves about so much

_____ Child was chronically absent due to the physical isolation of the family which made it impossible for child to come to school in bad weather

_____ Child was not motivated to master the classwork although he (she) appeared able to handle it (lazy, bored)

_____ Child was chronically absent due to parental indifference

_____ OTHER (i.e., another reason, not mentioned above)

For each reason that you have checked (√) above, explain fully how this reason(s) led to the decision to retain this child:

In your poinion, has the child benefitted from being retained?

Why?

PLEASE RETURN THE COMPLETED QUESTIONNAIRE IN THE ENCLOSED ENVELOPE NO LATER THAN APRIL 1, 1969.

APPENDIX B.

Hypotheses 3a-b:
California Achievement Tests Results
for Former Project Participants and
Their Matched, Non-Project Controls
Enrolled in Second Grade During 1969.
1969 Median Raw Scores and 1968-1969
Median Difference Scores by County

Table B1: Hypotheses 3a-3b: California Achievement Tests Total Battery Raw Scores. Former Project Participants and Their Matched Non-Project (N=43 pairs) Controls by County. 1969 Second Grade.

County	1969 Raw Scores						1969 - 1968 Difference Scores					
	RCCP Second Grade			Control Second Grade			RCCP Second Grade			Control Second Grade		
	N	Median	Range	N	Median	Range	N	Median	Range	N	Median	Range
Elliott	8	167.5	118-213	8	153.0	101-232	8	60.5	26-108	8	50.5	17-91
Floyd	3	154.0	88-160	3	183.0	90-196	3	58.0	49-63	3	70.0	63-94
Knott	6	137.0	80-190	6	164.5	69-182	6	41.5	39-66	6	58.0	37-87
Lee	6	152.0	52-164	6	158.5	51-180	6	40.5	21-62	6	29.0	(-7)-56
Magoffin	5	133.0	60-162	5	186.0	156-195	5	56.0	20-96	5	73.0	68-89
Morgan	7	172.0	83-215	7	171.0	122-228	7	82.0	58-136	7	101.0	72-117
Owsley	5	148.0	104-192	5	150.0	91-186	5	68.0	57-103	5	67.0	53-96
Wolfe	3	170.0	159-185	3	167.0	152-201	3	86.0	84-114	3	109.0	103-111
Totals	43	152.0	52-215	43	165.0	51-232	43	62.0	20-136	43	70.0	(-7)-117

Table B2: Hypotheses 3a-3b: California Achievement Tests Arithmetic Area Raw Scores. Former Project Participants and Their Matched Non-Project (N=43 pairs) Controls by County. 1969 Second Grade.

County	1969 Raw Scores						1969 - 1968 Difference Scores					
	Experimental			Control			Experimental			Control		
	N	Median	Range	N	Median	Range	N	Median	Range	N	Median	Range
Elliott	8	67.0	49-83	8	58.5	31-83	8	21.0	8-30	8	13.5	6-20
Floyd	3	55.0	48-67	3	68.0	36-69	3	26.0	9-35	3	32.0	19-33
Knott	6	63.0	22-78	6	70.5	21-75	6	17.0	10-29	6	28.0	4-36
Lee	6	62.5	12-74	6	72.0	12-77	6	15.0	7-19	6	14.0	(-10)-19
Magoffin	5	58.0	15-66	5	78.0	63-80	5	36.0	10-51	5	28.0	13-33
Morgan	7	68.0	27-79	7	67.0	47-78	7	42.0	16-53	7	45.0	29-50
Owsley	5	70.0	35-72	5	53.0	37-75	5	20.0	9-55	5	27.0	0-38
Wolfe	3	74.0	64-78	3	72.0	68-84	3	37.0	28-49	3	42.0	40-49
Totals	43	66.0	12-83	43	70.0	12-84	43	23.0	7-55	43	26.0	(-10)-50

Table B3: Hypotheses 3a-3b: California Achievement Tests Reading Area Raw Scores. Former Project Participants and Their Matched Non-Project (N=43 pairs) Controls by County. 1969 Second Grade.

County	1969 Raw Scores						1969 - 1968 Difference Scores					
	Experimental			Control			Experimental			Control		
	N	Median	Range	N	Median	Range	N	Median	Range	N	Median	Range
Elliott	8	62.0	47-83	8	66.0	39-86	8	20.5	12-48	8	26.5	0-38
Floyd	3	52.0	26-62	3	72.0	37-82	3	27.0	13-31	3	30.0	26-46
Knott	6	49.5	36-75	6	60.5	29-66	6	21.0	19-31	6	30.0	8-42
Lee	6	54.5	26-64	6	50.5	17-61	6	19.5	7-33	6	7.0	(-2)-32
Magoffin	5	41.0	31-61	5	65.0	60-79	5	9.0	5-32	5	29.0	24-37
Morgan	7	68.0	32-78	7	65.0	46-86	7	19.0	15-43	7	29.0	24-53
Owsley	5	52.0	32-63	5	50.0	25-67	5	19.0	13-31	5	22.0	8-48
Wolfe	3	60.0	55-67	3	52.0	52-63	3	32.0	30-34	3	34.0	30-35
Totals	43	54.0	26-83	43	61.0	17-86	43	21.0	5-48	43	29.0	(-2)-53

Table B4: Hypotheses 3a-3b: California Achievement Tests Language Area Raw Scores. Former Project Participants and Their Matched Non-Project (N=43 pairs) Controls by County. 1969 Second Grade.

County	1969 Raw Scores						1969 - 1968 Difference Scores					
	Experimental			Control			Experimental			Control		
	N	Median	Range	N	Median	Range	N	Median	Range	N	Median	Range
Elliott	8	38.0	22-54	8	32.5	20-65	8	18.5	3-32	8	14.5	(-1)-34
Floyd	3	31.0	14-47	3	43.0	17-45	3	1.0	1-27	3	14.0	12-15
Knott	6	30.5	19-37	6	31.0	19-43	6	5.5	(-2)-17	6	11.5	5-16
Lee	6	27.0	14-35	6	32.0	13-48	6	2.5	(-4)-19	6	6.5	(-1)-14
Magoffin	5	32.0	14-39	5	43.0	31-53	5	11.0	2-24	5	20.0	8-29
Morgan	7	38.0	10-62	7	47.0	26-64	7	30.0	6-42	7	29.0	14-32
Owsley	5	34.0	24-60	5	32.0	29-49	5	19.0	4-35	5	21.0	5-31
Wolfe	3	40.0	32-44	3	43.0	32-54	3	26.0	17-31	3	33.0	19-[illegible]
Totals	43	34.0	10-62	43	35.0	13-65	43	17.0	(-4)-42	43	15.0	(-1)-41

Table C1: Hypothesis 3c: California Achievement Tests Total Battery Raw Scores. Former Project Participants (N=25 pairs) by County. Second Grade, 1968 and 1969.

	1968 RCCP Second Grade			1969 RCCP Second Grade		
County	N	Median	Range	N	Median	Range
Elliott	3	203.0	170-233	3	183.0	152-213
Knott	7	179.0	149-218	7	151.0	80-190
Magoffin	3	204.0	182-207	3	133.0	114-138
Morgan	4	207.0	74-226	4	166.0	98-215
Owsley	5	156.0	67-168	5	148.0	104-192
Wolfe	3	168.0	100-171	3	170.0	159-185

APPENDIX C.
Hypothesis 3c:
California Achievement Tests Results for Former Project Participants Enrolled in Second Grade During 1968 or 1969. Median Raw Scores By County

Table 62: Hypothesis 3c: California Achievement Tests Reading Area Raw Scores. Former Project Participants (N=25 pairs) by County. Second Grade, 1968 and 1969.

	1968 RCCP Second Grade			1969 RCCP Second Grade		
County	N	Median	Range	N	Median	Range
Elliott	3	81.0	64-85	3	66.0	54-79
Knott	7	66.0	49-82	7	53.0	36-75
Magoffin	3	72.0	69-72	3	41.0	40-46
Morgan	4	72.5	62-79	4	58.0	34-74
Owsley	5	53.0	22-81	5	52.0	32-63
Wolfe	3	55.0	34-59	3	60.0	55-67

Table C3: Hypothesis 3c: California Achievement Tests Arithmetic Area Raw Scores. Former Project Participants (N=25 pairs) by County. Second Grade, 1968 and 1969.

	1968 RCCP Second Grade			1969 RCCP Second Grade		
County	N	Median	Range	N	Median	Range
Elliott	3	82.0	68-84	3	74.0	66-83
Knott	7	74.0	61-82	7	67.0	22-78
Magoffin	3	67.0	66-78	3	58.0	39-66
Morgan	4	78.5	74-79	4	75.5	49-79
Owsley	5	65.0	33-83	5	70.0	35-72
Wolfe	3	71.0	46-79	3	74.0	64-78

Table C4: Hypothesis 3c: California Achievement Tests Language Area Raw Scores. Former Project Participants (N=25 pairs) by County. Second Grade, 1968 and 1969.

	1968 RCCP Second Grade			1969 RCCP Second Grade		
County	N	Median	Range	N	Median	Range
Elliott	3	40.0	38-64	3	43.0	32-51
Knott	7	42.0	31-54	7	34.0	19-37
Magoffin	3	54.0	46-69	3	32.0	29-34
Morgan	4	57.5	54-69	4	47.5	10-62
Owsley	5	30.0	12-52	5	34.0	24-60
Wolfe	3	37.0	20-38	3	40.0	32-44

Table D1: Hypothesis 4: California Achievement Tests Total Battery Median Raw Scores. Former Project Participants and Their Non-Project Matched Controls (N=34 pairs) by County. Third Grade, 1969.

	1969 RCCP Third Grade			1969 Control Third Grade		
County	N	Median	Range	N	Median	Range
Elliott	5	309.0	208-321	5	251.0	132-283
Knott	6	225.5	158-296	6	204.0	88-286
Lee	2	273.5	221-326	2	244.5	179-310
Magoffin	7	219.0	153-277	7	257.0	191-317
Morgan	2	274.0	240-308	2	295.0	261-329
Owsley	4	183.0	68-226	4	142.0	132-289
Wolfe	8	285.5	180-324	8	256.5	138-327
Totals	34	229.0	68-326	34	241.0	88-329

APPENDIX D.
Hypothesis 4:
California Achievement Tests Results
for Former Project Participants and
Their Non-Project Matched Controls
Enrolled in Third Grade, 1969.
Median Raw Scores By County

Table D2: Hypothesis 4: California Achievement Tests Reading Area Median Raw Scores. Former Project Participants and Their Non-Project Matched Controls (N=34 pairs) by County. Third Grade, 1969.

	1969 RCCP Third Grade			1969 Control Third Grade		
County	N	Median	Range	N	Median	Range
Elliott	5	81.0	42-91	5	57.0	29-76
Knott	6	63.5	56-79	6	59.5	24-84
Lee	2	74.5	63-86	2	64.5	46-83
Magoffin	7	61.0	35-81	7	67.0	48-82
Morgan	2	68.0	51-85	2	75.5	62-89
Owsley	4	34.0	21-54	4	36.0	29-74
Wolfe	8	73.5	31-91	8	67.0	32-90
Totals	34	62.5	21-91	34	62.0	24-90

Table D3: Hypothesis 4: California Achievement Tests Arithmetic Area Median Raw Scores. Former Project Participants and Their Non-Project Matched Controls (N=34 pairs) by County. Third Grade, 1969.

	1969 RCCP Third Grade			1969 Control Third Grade		
County	N	Median	Range	N	Median	Range
Elliott	5	160.0	132-169	5	146.0	85-155
Knott	6	124.5	74-153	6	115.0	52-151
Lee	2	143.0	114-172	2	130.5	92-169
Magoffin	7	131.0	93-154	7	136.0	118-174
Morgan	2	156.0	145-167	2	166.5	158-175
Owsley	4	130.5	29-139	4	85.5	79-166
Wolfe	8	151.5	121-167	8	142.5	82-173
Totals	34	138.5	29-172	34	134.0	52-175

Table D4: Hypothesis 4: California Achievement Tests Language Area Median Raw Scores. Former Project Participants and Their Non-Project Matched Controls (N=34 pairs) by County. Third Grade, 1969.

	1969 RCCP Third Grade			1969 Control Third Grade		
County	N	Median	Range	N	Median	Range
Elliott	5	63.0	32-70	5	42.0	18-61
Knott	6	36.0	28-64	6	30.0	12-51
Lee	2	56.0	44-68	2	49.5	41-58
Magoffin	7	41.0	25-53	7	42.0	22-61
Morgan	2	50.0	44-56	2	53.0	41-65
Owsley	4	21.5	12-33	4	23.0	19-49
Wolfe	8	56.0	26-66	8	44.0	24-64
Totals	34	42.0	12-70	34	42.0	12-65

APPENDIX E.
Hypothesis 5:
California Achievement Tests Results for Former Project Participants (1968 and 1969 First Grade Groups) and Their Matched Non-Project Controls (1969 First Grade). Median Raw Scores By County

Table E1: Hypothesis 5: California Achievement Tests Total Battery Raw Scores. Former Project Participants (N=56 pairs) by County. First Grade, 1968 and 1969.

	RCCP 1968 First Grade			RCCP 1969 First Grade		
County	N	Median	Range	N	Median	Range
Elliott	11	114.0	73-136	11	107.0	77-187
Floyd	8	72.5	19-134	8	91.5	23-156
Knott	9	112.0	40-150	9	109.0	60-125
Lee	5	93.0	29-149	5	80.0	67-128
Magoffin	5	58.0	40-89	5	67.0	51-87
Morgan	5	65.0	25-73	5	66.0	33-149
Owsley	8	82.5	36-135	8	100.5	64-129
Wolfe	5	71.0	43-84	5	94.0	44-150
Totals	56	84.5	19-150	56	96.5	23-187

Table E2: Hypothesis 5: California Achievement Tests Reading Area Raw Scores. Former Project Participants (N=56 pairs) by County. First Grade, 1968 and 1969.

	RCCP 1968 First Grade			RCCP 1969 First Grade		
County	N	Median	Range	N	Median	Range
Elliott	11	37.0	28-50	11	44.0	17-65
Floyd	8	22.0	13-43	8	38.5	8-53
Knott	9	30.0	17-44	9	34.0	24-41
Lee	5	30.0	11-51	5	33.0	26-41
Magoffin	5	29.0	23-34	5	30.0	23-42
Morgan	5	28.0	13-35	5	34.0	20-50
Owsley	8	28.0	16-50	8	35.5	26-43
Wolfe	5	28.0	22-33	5	32.0	20-52
Totals	56	30.0	11-51	56	34.5	8-65

Table E3: Hypothesis 5: California Achievement Tests Arithmetic Area Raw Scores. Former Project Participants (N=56 pairs) by County. First Grade, 1968 and 1969.

	RCCP 1968 First Grade			RCCP 1969 First Grade		
County	N	Median	Range	N	Median	Range
Elliott	11	47.0	28-60	11	47.0	24-72
Floyd	8	30.5	2-63	8	45.0	5-61
Knott	9	52.0	12-70	9	53.0	14-65
Lee	5	42.0	5-60	5	33.0	22-61
Magoffin	5	10.0	5-32	5	27.0	0-36
Morgan	5	19.0	11-26	5	21.0	1-66
Owsley	8	37.5	6-63	8	36.0	20-51
Wolfe	5	25.0	4-41	5	36.0	14-57
Totals	56	34.0	2-70	56	37.0	0-72

Table E4: Hypothesis 5: California Achievement Tests Language Area Raw Scores. Former Project Participants (N=56 pairs) by County. First Grade, 1968 and 1969.

	RCCP 1968 First Grade			RCCP 1969 First Grade		
County	N	Median	Range	N	Median	Range
Elliott	11	25.0	13-29	11	23.0	10-50
Floyd	8	20.0	4-33	9	22.5	0-42
Knott	9	25.0	11-39	9	22.0	10-31
Lee	5	24.0	13-38	5	19.0	13-28
Magoffin	5	15.0	9-27	5	17.0	12-19
Morgan	5	14.0	1-20	5	14.0	1-38
Owsley	8	18.0	11-26	8	29.5	15-40
Wolfe	5	14.0	13-17	5	21.0	7-41
Totals	56	19.5	1-39	56	21.0	0-50

Table E5: Hypothesis 5: California Achievement Tests Total Battery Raw Scores. Former Project Participants and Their Matched Non-Project Controls (N=49 pairs) by County. First Grade, 1969.

	RCCP 1969 First Grade			1969 Control First Grade		
County	N	Median	Range	N	Median	Range
Elliott	8	114.0	85-187	8	127.5	35-154
Floyd	4	63.0	43-122	4	90.5	49-163
Knott	5	71.0	60-125	5	131.0	57-158
Lee	3	80.0	67-128	3	113.0	102-144
Magoffin	3	64.0	51-78	3	110.0	48-138
Morgan	4	80.0	39-149	4	102.0	52-126
Owsley	13	101.0	64-118	13	107.0	54-154
Wolfe	9	97.0	44-150	9	116.0	63-135
Totals	49	97.0	39-187	49	110.0	35-163

Table E6: Hypothesis 5: California Achievement Tests Reading Area Raw Scores. Former Project Participants and Their Matched Non-Project Controls (N=49 pairs) by County. First Grade, 1969.

	RCCP 1969 First Grade			1969 Control First Grade		
County	N	Median	Range	N	Median	Range
Elliott	8	44.0	36-65	8	44.0	18-59
Floyd	4	22.0	15-45	4	36.0	28-70
Knott	5	29.0	24-35	5	44.0	29-54
Lee	3	31.0	26-41	3	45.0	30-52
Magoffin	3	30.0	23-34	3	33.0	22-51
Morgan	4	39.5	28-50	4	47.0	30-57
Owsley	13	36.0	24-44	13	38.0	17-54
Wolfe	9	39.0	20-52	9	40.0	21-50
Totals	49	35.0	15-65	49	41.0	17-70

Table E7: Hypothesis 5: California Achievement Tests Arithmetic Area Raw Scores. Former Project Participants and Their Matched Non-Project Controls (N=49 pairs) by County. First Grade, 1969.

	RCCP 1969 First Grade			1969 Control First Grade		
County	N	Median	Range	N	Median	Range
Elliott	8	47.5	25-72	8	61.5	9-73
Floyd	4	36.5	7-56	4	39.0	5-64
Knott	5	34.0	14-65	5	56.0	15-73
Lee	3	33.0	22-61	3	52.0	38-64
Magoffin	3	22.0	0-36	3	43.0	12-54
Morgan	4	22.5	1-66	4	36.0	9-44
Owsley	13	36.0	14-50	13	44.0	15-71
Wolfe	9	36.0	7-57	9	45.0	16-57
Totals	49	36.0	0-72	49	45.0	5-73

Table E8: Hypothesis 5: California Achievement Tests Language Area Raw Scores. Former Project Participants and Their Matched Non-Project Controls (N=49 pairs) by County. First Grade, 1969.

County	RCCP 1969 First Grade			1969 Control First Grade		
	N	Median	Range	N	Median	Range
Elliott	8	25.5	18-50	8	23.0	0-31
Floyd	4	15.0	0-21	4	17.0	13-29
Knott	5	19.0	10-25	5	29.0	13-36
Lee	3	19.0	16-26	3	23.0	20-35
Magoffin	3	17.0	12-19	3	33.0	14-34
Morgan	4	18.5	4-38	4	21.5	1-32
Owsley	13	26.0	15-35	13	27.0	15-42
Wolfe	9	25.0	7-41	9	30.0	17-41
Totals	49	21.0	0-50	49	27.0	0-42

APPENDIX F.
1968-1969
Title I Questionnaire

Person Interviewed_____Interviewer_____
Date_____

TITLE I QUESTIONNAIRE

Programs Funded in _____Grade
_____School
1968-1969 School Year

NOTE: Title I programs are not funded for Grade(s) 1 __ 2 __ 3 __

A. Programs Funded by Title I, ESEA:

1. Are there any special programs* at _____school this year funded by Title I in the areas of reading, arithmetic and/or language† which serve children in the _____grade?

____ Yes (If "Yes," complete items 2-9 below.)

____ No (If "No," skip to B.)

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*Special programs are herein defined as those supplementary to the regular curriculum structured to provide enrichment, remediation, or specialized instruction. The focus of the programs should be primarily on the culturally disadvantaged, retarded or others with special learning problems.

†Examples of reading programs would be those aimed at enriching reading abilities, library programs, investments in special reading materials and equipment and remedial reading programs.

Examples of arithmetic programs would be employment of special arithmetic teachers, use of special techniques, equipment and/or curriculum materials.

Examples of language programs would be use of speech therapists or other remedial personnel in the areas of vocabulary, syntax and expressiveness, or special materials, equipment or techniques designed to enrich the regular curriculum.

The examples above are suggestive and not meant to be exhaustive.

2. Briefly describe the nature and goals of these programs.

(Full Year) _____

_____

_____

(Summer 1968 Only) _____

_____

_____

3. Specify below the _____grade teachers (by name) employed to staff these programs, whether they are hired especially for this program or are regular classroom teachers, and the number of hours spent by each teacher each week in each type of program.

Full Year:

Name of Teacher	Special or Regular	Hours Per Week			
		Reading	Arithmetic	Language	Other

Summer Only:

Name of Teacher	Special or Regular	Hours Per Week			
		Reading	Arithmetic	Language	Other

4. Indicate the number of _____grade children served in each of these programs. Is this number nearly all of class or only a small part?

Full Year:

_____ Reading (_____nearly all; _____small part.)

_____ Arithmetic (_____nearly all; _____small part.)

_____ Language (_____nearly all; _____small part.)

Summer Only:

_____ Reading (_____nearly all; _____small part.)

_____ Arithmetic (_____nearly all; _____small part.)

_____ Language (_____nearly all; _____small part.)

5. Specify below the teacher aides (by name) employed in these programs whether they are full- or part-time, and the number of hours spent by each aide each week in each type of program.

Full Year:

Name of Aide	Part-time or Full-time	Hours Per Week			
		Reading	Arithmetic	Language	Other

Summer Only:

Name of Aide	Part-time or Full-time	Hours Per Week			
		Reading	Arithmetic	Language	Other

6. Have these full year programs been in operation throughout the entire 1968-1969 school year?

_____ Yes

_____ No

[If "No,"] How long have the programs been in operation?_____

What is the length of summer programs _____months,_____days per week,_____hours per day.

7. Specify the amount of Title I funds allocated to programs in the a areas below. (Note: The amount should reflect only the amount spent on programs which serve _____ graders. In the event a program serves several grade levels, estimate the amount for the ____ grade.)

Amount Spent

Full Year:		Summer Only:	
_____	Reading	_____	Reading
_____	Arithmetic	_____	Arithmetic
_____	Language	_____	Language
_____	Other	_____	Other

8. Specify the amount of Title I funds allocated for _____grade teacher training* and/or for curriculum development† materials in the areas below.

Full Year:

Type	Funds Allocated			
	Reading	Arithmetic	Language	Other
Teacher Training				
Curriculum Development Supplies				

*Extra schooling or in-service training.

†Supplementary texts, mechanical equipment (e.g., projectors, tape recorders, teaching machines) or special content (e.g., games).

Summer Only:

Type	Funds Allocated			
	Reading	Arithmetic	Language	Other
Teacher Training				
Curriculum Development Supplies				

9. Do you feel that the programs funded by Title I in the areas of reading, arithmetic and language have had a significant effect on the achievement level of the _____ grade children they serve?

Full Year:

_____ Yes

_____ No

Explain briefly your answer: _____

_____

_____

_____

Summer Only:

_____ Yes

_____ No

Explain briefly your answer: _____

_____

_____

_____

_____

B. Special Programs Not Funded by Title I, ESEA:

1. Are there any other special programs at your school this year in the areas of reading, arithmetic and/or language which serve children in the _____ grade (excepting those funded through Title I, ESEA)?

_____Yes (If "Yes," complete items 2-9 below.)

_____No (If "No," skip to questionnaire for another grade.)

2. Briefly describe the nature and goals of these programs.

(Full Year) _____

_____

_____

(Summer 1968 Only) _____

_____

_____

3. Specify below the _____grade teachers (by name) employed to staff these non-Title I programs, whether they are hired especially for this program or are regular classroom teachers, and the number of hours spent by each teacher each week in each type of program.

Full Year:

Name of Teacher	Special or Regular	Hours Per Week			
		Reading	Arithmetic	Language	Other

Summer Only:

Name of Teacher	Special or Regular	Hours Per Week			
		Reading	Arithmetic	Language	Other

4. Indicate the number of _____ grade children served in each of these non-Title I programs. Is this number nearly all of class or only a small part?

Full Year:

_____ Reading (_____ nearly all; _____ small part.)

_____ Arithmetic (_____ nearly all; _____ small part.)

_____ Language (_____ nearly all; _____ small part.)

Summer Only:

_____ Reading (_____ nearly all; _____ small part.)

_____ Arithmetic (_____ nearly all; _____ small part.)

_____ Language (_____ nearly all; _____ small part.)

5. Specify below the teacher aides (by name) employed in these programs, whether they are full- or part-time, and the number of hours spent by each aide each week in each type of program.

Full Year:

Name of Aide	Part-time or Full-time	Hours Per Week			
		Reading	Arithmetic	Language	Other

Summer Only:

Name of Aide	Part-time or Full-time	Hours Per Week			
		Reading	Arithmetic	Language	Other

6. Have these full year non-Title I programs been in operation throughout the entire 1968-1969 school year?

_____ Yes

_____ No

[If "No,"] How long have the non-Title I programs been in operation? _____ What is the length of the summer program: _____months, _____ days per week, _____ hours per day.

7. Specify the amount of funds allocated to non-Title I programs in the areas below. (Note: The amount should reflect only the amount spent on programs which serve _____graders. In the event a program serves several grade levels, estimate the amount for the _____grade.)

Amount Spent

Full Year:

_____ Reading

_____ Arithmetic

_____ Language

_____ Other

Summer Only:

_____ Reading

_____ Arithmetic

_____ Language

_____ Other

8. Specify the amount of non-Title I funds allocated for _____grade teacher training* and/or for curriculum development† materials in the areas below.

Full Year:

Type	Funds Allocated			
	Reading	Arithmetic	Language	Other
Teacher Training				
Curriculum Development Supplies				

Summer Only:

Type	Funds Allocated			
	Reading	Arithmetic	Language	Other
Teacher Training				
Curriculum Development Supplies				

9. Do you feel that these non-Title I programs in the areas of reading, arithmetic and language have had a significant effect on the achievement level of the _____grade children they serve?

Full Year:

_____ Yes

_____ No

Explain briefly your answer: _____

_____

_____

_____

_____

*Extra schooling or in-service training.

†Supplementary texts, mechanical equipment (e.g., projectors, tape recorders, teaching machines) or special content (e.g., games).

Summer Only:

_____ Yes

_____ No

Explain briefly your answer: _____

_____

_____

_____

_____

APPENDIX G.

Value Orientation Questionnaire:
Parts A[1], B and D Only
(as adapted for use in testing Hypothesis 6
of 1968-69 Research Evaluation (OEO-4205)
of the Rural Child Care Project)

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[1]The second part of section A contains five additional "forced-choice" questions which have been added to offset an expected "acquienscent" response set on the part of our sample to the first part of section A.

PARENTS OF GIRLS ONLY

Value Orientation Questionnaire[1]

I. Background Information: (to be supplied in part by county Social Worker**)

Name_____ Age____** Sex _____

No. Yrs. Education___**Occupation _____**

Welfare_____** Type_____**

Name of Project Child(ren)_____

Sex of Project Child _____ Number of siblings_____

Still active?** Yes___No___ Length of Project Participation**_____

II. Introduction: (Be sure you are identified as part of Day Care Staff)

Hello, my name is _____. We are going to spend some time talking about some things that you will find interesting. These are things that people have different opinions about. There are no right or wrong answers like on a test. I am interested in what you think, OK?

III. Interview:

(PARENTS OF GIRLS, ONLY)

A. First, let's talk about what you think of occupations. Maybe you DO and maybe you DON'T know exactly what your daughter would like to be when she grows up. If things worked out so that she could chose any occupation, how would you feel if she were a(n) bank clerk? Would you be PLEASED or DISAPPOINTED?

Would you be PLEASED or DISAPPOINTED if your daughter was a cook?

[1]As adapted for use in testing Hypothesis 6 of the 1968-1969 Research Evaluation (OEO-4205) of the Rural Child Care Project.

Would you be PLEASED or DISAPPOINTED if your daughter was a doctor?

Would you be PLEASED or DISAPPOINTED if your daughter was a dress shop owner?

Would you be PLEASED or DISAPPOINTED if your daughter was a florist's (flower ship) assistant?

Would you be PLEASED or DISAPPOINTED if your daughter was a hair stylist?

Would you be PLEASED or DISAPPOINTED if your daughter was a maid?

Would you be PLEASED or DISAPPOINTED if your daughter was a registered nurse?

Would you be PLEASED or DISAPPOINTED if your daughter was a school teacher?

Would you be PLEASED or DISAPPOINTED if your daughter was a secretary?

Would you be PLEASED or DISAPPOINTED if your daughter was a waitress?

Would you be PLEASED OR DISAPPOINTED if your daughter was a weaver?

If you had to decide what occupation your daughter would follow, would you prefer that she be a:

1) Doctor or a School teacher?

2) Registered nurse or a Dress shop owner?

3) Bank clerk or a Hair stylist?

4) Secretary or Weaver?

5) Cook or Maid?

How would you feel about your daughter holding a job outside the home? In favor____Neutral___Opposed___

B. OK, now I would like you to let me know what you expect of your daughter when she is in school and later when she is grown up:

Have you clearly shown that you strongly expect your daughter, while she is in school, to

Father		Mother		
Yes	No	Yes	No	
___	___	___	___	Get very good grades.
___	___	___	___	Be an important person in school affairs.
___	___	___	___	Be good at extra curricular activities (e.g., cheerleader).
___	___	___	___	Quit school at 16 to get a job.
___	___	___	___	Finish high school.
___	___	___	___	Graduate from college.

Later, when she is an adult, do you expect your daughter to

Father		Mother		
Yes	No	Yes	No	
___	___	___	___	Marry a wealthy man.
___	___	___	___	Have a better home than her father's.
___	___	___	___	Become a professional person like a doctor or nurse.
___	___	___	___	Have her own business.
___	___	___	___	Be outstanding in her occupation.
___	___	___	___	Be respected and looked up to in her community.

D. Here are some statements that people have different opinions about. There are no right or wrong answers like there might be on a test. We are simply interested in finding out how you feel about them.

When I read a statement, if you agree on the whole with a statement or if you mostly agree, tell me, "I agree with that".

Or, if you disagree on the whole or if you mostly disagree, tell me, "I disagree with that".

Please listen carefully to each one:

(Read each statement twice, then use alternate phrasing, if necessary.)

1. Nowadays with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself. A D

2. Education and learning are more important in determining a person's happiness than money and what it (money) will buy. A D

3. There is nothing a person can't be (or do) if she really wants to and works hard to achieve (for) it. A D

4. Even when teen-agers get married, their main loyalty still belongs to their mothers and fathers. A D

5. Whether a person becomes a success or not, depends as much on how wealthy her father is as it does on how much ability she herself has. A D

6. The best kind of a job to have is one where you are part of an organization (a group) all working together even if you don't get individual credit. A D

7. All I want out of life in the way of a career (job) is a secure, not too difficult job with enough pay to afford a nice car and eventually my own home. A D

8. Planning only makes a person unhappy since your plans hardly ever work out anyway. A D

9. When a woman is born, the success she's going to have is already in the cards, so she might just as well accept it and not fight against it. A D

10. To me a family doesn't mean only a father and mother and their children but a large family of parents, their children and children's children, the uncles, aunts, cousins, and in-laws. A D

11. The most successful people in my opinion are those who enjoy their work no matter <u>how unskilled</u> a (what kind of) job they have. A D

12. It is silly for a teen-ager to put money in a car when the money could be used to get started in a business or for education. A D

13. Even if I became a successful businessman (business woman) and made a great deal of money, if I hadn't gone through college I would feel I had missed something <u>of vital importance</u> (very important). A D

14. When the time comes for a girl to take a job she should stay near her parents even if it means giving up a good job (opportunity). A D

15. Nothing in life is worth the sacrifice of moving away from your parents. A D

PARENTS OF BOYS ONLY

Value Orientation Questionnaire[1]

I. Background Information: (to be supplied in part by county Social Worker**)

Name_____ Age____** Sex____

No. Yrs. Education__** Occupation_____**

Welfare_____** Type_____**

Name of Project Child(ren)_____

Sex of Project Child_____Number of siblings_____

Still active?** Yes___No___ Length of Project Participation**_____

II. Introduction: (Be sure you are identified as part of Day Care Staff)

Hello, my name is _____. We are going to spend some time talking about some things that you will find interesting. These are things that people have different opinions about. There are no right or wrong answers like on a test. I am interested in what you think, OK?

III. Interview:

(PARENTS OF BOYS, ONLY)

A. First, let's talk about what you think of occupations. Maybe you DO and maybe you DON'T know exactly what your son would like to be when he grows up. If things worked out so that he could chose any occupation, how would you feel if he were a(n) advertising executive? Would you be PLEASED or DISAPPOINTED?

Would you be PLEASED or DISAPPOINTED if your son was an auto mechanic?

Would you be PLEASED or DISAPPOINTED if your son was a bank teller?

---

[1]As adapted for use in testing Hypothesis 6 of the 1968-1969 Research Evaluation (OEO-4205) of the Rural Child Care Project.

Would you be PLEASED or DISAPPOINTED if your son was a bookkeeper?

Would you be PLEASED or DISAPPOINTED if your son was a bus driver?

Would you be PLEASED or DISAPPOINTED if your son was a carpenter?

Would you be PLEASED or DISAPPOINTED if your son was a doctor?

Would you be PLEASED or DISAPPOINTED if your son was a druggist?

Would you be PLEASED or DISAPPOINTED if your son was a furniture mover?

Would you be PLEASED or DISAPPOINTED if your son was a jewelry store owner?

Would you be PLEASED or DISAPPOINTED if your son was a mail carrier?

Would you be PLEASED or DISAPPOINTED if your son was a night watchman?

If you had to decide what occupation your son would follow, would you prefer that he be:

1) A Doctor or a Druggist;

2) A Jewelry store owner or a Bank teller;

3) A Bookkeeper or a Carpenter;

4) An Auto mechanic or a Mail carrier;

5) A Bus driver or a Night watchman?

B. OK, now I would like you to let me know what you expect of your son when he is in school and later when he is grown up:

Have you clearly shown that you strongly expect your son, while he is in school, to:

Father		Mother		
Yes	No	Yes	No	
___	___	___	___	Get very good grades.
___	___	___	___	Be an important person in school affairs.
___	___	___	___	Be a good athlete.
___	___	___	___	Quit school at 16 to get a job.
___	___	___	___	Finish high school.
___	___	___	___	Graduate from college.

Later, when he is an adult, do you expect your son to

Father		Mother		
Yes	No	Yes	No	
___	___	___	___	Become a wealthy man.
___	___	___	___	Have a better job than his father's.
___	___	___	___	Become a professional man like a doctor or lawyer.
___	___	___	___	Have his own business.
___	___	___	___	Be outstanding in his occupation.
___	___	___	___	Be respected and looked up to in his community.

(ALL PARENTS)

D. Here are some statements that people have different opinions about. There are not right or wrong answers like there might be on a test. We are simply interested in finding out how you feel about them.

When I read a statement, if you agree on the whole with a statement or if you mostly agree, tell me, "I agree with that".

Or, if you disagree on the whole or if you mostly disagree, tell me, "I disagree with that".

Please listen carefully to each one:

(Read each statement twice, then use alternate phrasing, if necessary.)

1. Nowadays with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself. A D

2. Education and learning are more important in determining a person's happiness than money and what it (money) will buy. A D

3. There is nothing a person can't be (or do) if he really wants to and works hard to achieve (for) it. A D

4. Even when teen-agers get married, their main loyalty still belongs to their mothers and fathers. A D

5. Whether a person becomes a success or not, depends as much on how wealthy his father is as it does on how much ability he himself has. A D

6. The best kind of a job to have is one where you are part of an organization (a group) all working together even if you don't get individual credit. A D

7. All I want out of life in the way of a career (job) is a secure, not too difficult job with enough pay to afford a nice car and eventually my own home. A D

8. Planning only makes a person unhappy since your plans hardly ever work out anyway. A D

9. When a man is born, the success he's going to have is already in the cards, so he might just as well accept it and not fight against it. A D

10. To me a family doesn't mean only a father and mother and their children but a large family of parents, their children and children's children, the uncles, aunts, cousins, and in-laws. A D

11. The most successful people in my opinion are those who enjoy their work no matter how unskilled a (what kind of) job they have. A D

12. It is silly for a teen-ager to put money in a car when the money could be used to get started in a business or for education. A D

13. Even if I became a successful businessman (business woman) and made a great deal of money, if I hadn't gone through college I would feel I had missed something of vital importance (very important). A D

14. When the time comes for a boy to take a job he should stay near his parents even if it means giving up a good job (opportunity). A D

15. Nothing in life is worth the sacrifice of moving away from your parents. A D

Hypotheses 6a-d:
Instructions for Teachers
Rating Academic Performance.

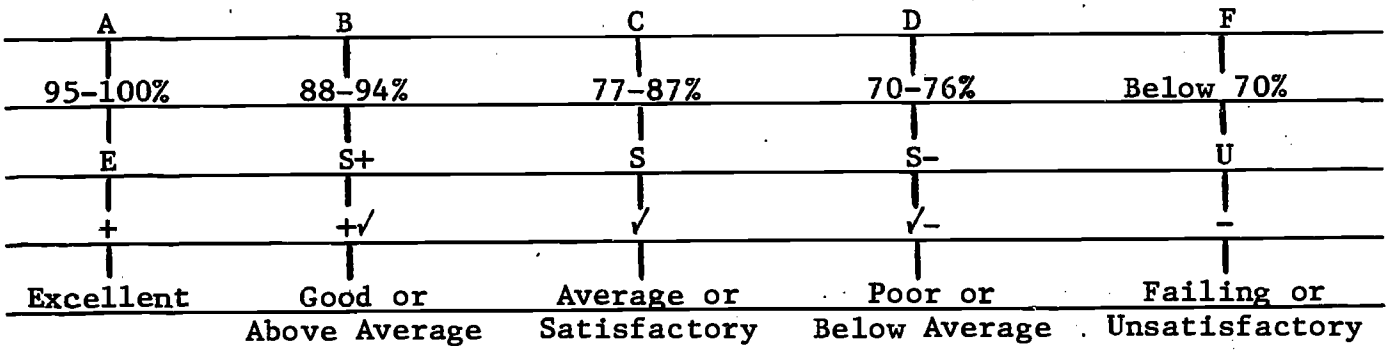
INSTRUCTIONS FOR TEACHERS IN RATING ACADEMIC PERFORMANCE

In assigning an overall achievement rating to each of the children on the attached list, please use the following system: A, B, C, D, or F. Rate each child in terms of his or her actual overall performance compared to the overall performance of all other pupils in your classroom. Your ratings should be based on the child's performance since the beginning of the 1968-1969 fall term. If the children of the grade you teach have been grouped into classrooms according to ability, i.e., all "fast" learners in one classroom, "medium" learners in another, and "slow" learners in another; then rate the listed children compared to all the school's children of the grade you teach.

In order to understand the meaning attached to each rating, please refer to the diagram below. This diagram, for example, makes it clear that a rating of "C" corresponds to a "✓" mark, to "satisfactory", or to "77-87%" correct on examinations. This diagram should help you rate each child A, B, C, D, or F regardless of the particular grading system you presently employ.

If there are any factors you feel would negatively or positively affect your ratings please explain them on the back of the attached list. For example, if your pupils are an unusually bright or slow group, even though they were not grouped by the school according to ability, you should indicate this fact and how it may have affected your ratings.

SYSTEM FOR RATING OVERALL ACADEMIC PERFORMANCE



APPENDIX I.

Value Orientation Questionnaire[1]
(Library of Congress No. ADI 5501)
Parts A, B and D Only

Copyrighted Material Deleted

[1] Strodtbeck, F. L., Family Interaction, Values, and Achievement. Chapter 4 in McClelland, D. C. et al, Talent and Society, Princeton, N. J.: D. Van Nostrand, 1958.

Appendix J. Hypothesis 6

TABLE : HYPOTHESIS 6: DESCRIPTIVE DATA FOR PROJECT PARENTS (N=71) ADMINISTERED THE VALUE ORIENTATION SCALE (MODIFIED VERSION)

1. Age (in years)

	Parents of Over Achievers			Parents of Under Achievers		
	N	Mean	SD	N	Mean	SD
Fathers	8	34.4	26.3	10	39.6	14.2
Mothers	29	33.3	13.8	24	36.6	13.5

2. Education (in years)

Fathers	8	5.3	5.3	10	7.8	5.4
Mothers	29	7.7	4.0	24	7.2	6.4

3. Occupation

	Fathers of				Mothers of			
	Over Achievers		Under Achievers		Over Achievers		Under Achievers	
Category	N	%	N	%	N	%	N	%
Unemployed	1	12.5	3	30.0	26	89.7	21	87.5
Unskilled	3	37.5	2	20.0	0	0	2	8.3
Farm	1	12.5	2	20.0	0	0	0	0
Semi-skilled	1	12.5	1	10.0	2	6.9	0	0
Skilled	0	0	1	10.0	0	0	0	0
Retired	0	0	0	0	1	3.4	1	4.2
Disabled	2	25.0	1	10.0	0	0	0	0

4. Welfare Status

	Parents of Over Achievers	Parents of Under Achievers
None	18	19
Public Assistance	4	3
AFDC	5	1
Social Security or Retirement	2	2
Other (eg. work program)	8	9

Hypothesis 6: Descriptive Data for Project Parents, Page 2.

5. Number of Children in Family

Mean	SD	Mean	SD
5.2	2.4	5.3	2.2

6. Number of Children Enrolled in the Rural Child Care Project

1.9	.9	1.8	.7

7. Currently Active in Rural Child Care Project

	N	Per Cent	N	Per Cent
Yes	11	29.7	15	44.1
No	26	70.3	19	55.9

8. Length of Project Participation

Mean	SD	Mean	SD
660.2	338.8	783.1	401.5

Appendix K.

THE MORALE SCALE*
The Original Scale

**1. The future is too uncertain for a person to plan on marrying.

[The respondent will be asked: Which of the following best expresses your feeling about the statement I have just read?

Strongly Agree Agree Undecided Disagree Stongly Disagree]***

**2. It is difficult to think clearly these days.

**3. The future looks very black.

**4. Life is just one worry after another.

5. Most people can be trusted.

6. Times are getting better.

7. It does not take long to get over feeling gloomy.

**8. The day is not long enough to do one's work well and have any time for fun.

**9. No one cares much what happens to you.

10. Any man with ability and willingness to work hard has a good chance of being successful.

11. It is great to be living in these exciting times.

**12. These days one is inclined to give up hope of amounting to something.

**13. There is little chance for advancement in industry and business unless a man has unfair pull.

---

*Source: Rundquist, E. A. and Sletto, R. F., Personality And The Depression. Minneapolis: University of Minnesota Press, 1936. (Reprinted with permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the weights of these items must be reversed.

***This question will be repeated for each item in the scale.

THE MORALE SCALE* (cont'd)

14. The young man of today can expect much of the future.

15. This generation will probably never see such hard times again.

16. Real friends are as easy to find as ever.

**17. Life is just a series of disappointments.

18. One seldom worries so much as to become very miserable.

19. A man does not have to pretend he is smarter than he really is to "get by".

**20. Success is more dependent on luck than on real ability.

21. A person can plan his future so that everything will come out all right in the long run.

**22. There is really no point in living.

---

*Source: Rundquist, E. A. and Sletto, R. F., Personality And The Depression. Minneapolis: University of Minnesota Press, 1936. (Reprinted with permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the weights of these items must be reversed.

Appendix L.

The Morale Scale, Revised:
With instructions for introducing
and administering the Scale

MORALE SCALE

Name of Interviewer_____ Date_____

Name of Respondent_____ County_____
LAST FIRST MIDDLE

Sex_____ Race_____ I.D. Number _____

How cooperative was this respondent? (Put "X" in the appropriate space.)

_____ _____ _____ _____ _____
Very Cooperative — Very Uncooperative

On the whole, do you think the respondent's answers reflect his true feelings?

_____ YES _____ NO

COMMENTS: _____

_____

INSTRUCTIONS

How do you do? I'm _____ from the Day Care Program Research Office. We're talking to some of the parents of young children here in _____ County regarding their feelings on a number of matters. We are interested in finding out how parents in this area feel about the future and life in general.

I am going to read you some statements and ask you whether you agree or whether you disagree with each one. There are no right or wrong answers to these statements. People feel differently about such things and each person's feelings are just as valuable as another's.

Before we begin, we can do one statement for practice. If the statement is, "The country is going to the dogs," I would first ask you whether you agree or disagree. If you were uncertain about how you felt and couldn't decide whether you agree or disagree, you would say "undecided." Now which of these three answers--agree, disagree, or undecided--best tells how you feel about the statement, "The country is going to the dogs"?

1. (IF "AGREE," SAY:) Okay, you've said that you agree with the statement. We also want to find out how strongly you agree. If, for this example, you felt very strongly that the country was going to the dogs, you would answer that you "strongly agree." If, on the other hand, you feel that the country is headed in this direction but that there are also some good things to be said about the condition of the country, then you would simply answer "agree." The same thing holds for statements that you disagree with: you can either "strongly disagree" or just sort of "mildly disagree."

2. (IF "DISAGREE," SAY:) Okay, you've said that you disagree with the statement. We also want to find out how strongly you disagree. If, for this example, you felt very strongly that the country was <u>not</u> going to the dogs, that the country was definitely heading in the right direction, you would answer that you "strongly disagree." If, on the other hand, you felt that although the country is not perfect, it shouldn't be described as going to the dogs, you answer simply "mildly disagree." The same thing holds for statements that you agree with; you can either "strongly agree" or just sort of "mildly agree."

3. (IF "UNDECIDED," SAY:) Okay, you've said that you were undecided about the statement. If you had answered agree or disagree, we would have wanted to find out how strongly you felt. For instance, if you had felt very strongly that the country was going to the dogs, then you would answer "strongly agree." If you had felt that the country was headed in this direction but that there were also some good things to be said about the condition of the country, then you would simply answer "agree." The same thing holds for statements that you disagree with; you can either "strongly disagree" or just sort of "mildly disagree."

(FOR ALL) So, as you can see on this board, there are five possible answers you can give to any of the statements I read. They range all the way from "strongly agree" through "agree", "undecided" and "disagree" to "strongly disagree" (POINT TO BOARD). Remember to save the two answer choices on the ends (POINT) for those statements you feel very strongly about. I'll read each statement twice. If you don't understand any of the statements, just tell me and I'll read them a different way. Are there any questions? Here is the first statement:

THE MORALE SCALE*

**1. IT IS DIFFICULT TO THINK CLEARLY THESE DAYS.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**2. THE FUTURE LOOKS VERY DISMAL (DARK).

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**3. LIFE IS JUST ONE WORRY AFTER ANOTHER.

How do you feel about the statement I have just read: Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

4. MOST PEOPLE CAN BE TRUSTED.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

---

*Source: Rundquist, E. A. and Sletto, R. F., Personality And The Depression. Minneapolis: University of Minnesota Press, 1936. (Reprinted with permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the weights of these items must be reversed.

THE MORALE SCALE* (CONT'D)

5. TIMES ARE GETTING BETTER.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

6. IT DOES NOT TAKE LONG TO GET OVER FEELING GLOOMY.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**7. THE DAY IS NOT LONG ENOUGH TO DO ONE'S WORK WELL AND HAVE ANY TIME FOR FUN.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**8. NO ONE CARES MUCH WHAT HAPPENS TO YOU.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

9. ANY MAN WITH ABILITY AND WILLINGNESS TO WORK HARD HAS A GOOD CHANCE OF BEING SUCCESSFUL.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided **Disagree** Strongly Disagree

10. IT IS GREAT TO BE LIVING IN THESE EXCITING TIMES.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**11. THESE DAYS ONE <u>IS INCLINED</u> TO GIVE UP HOPE OF AMOUNTING TO SOMETHING. (TENDS TO . . .)

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

---

*Source: Rundquist, E. A. and Sletto, R. F., <u>Personality And The Depression</u>. Minneapolis: University of Minnesota Press, 1936. (Reprinted with permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the <u>weights</u> of these items must be reversed.

THE MORALE SCALE* (CONT'D.)

**12. THERE IS LITTLE CHANCE FOR ADVANCEMENT IN INDUSTRY AND BUSINESS UNLESS A MAN HAS UNFAIR PULL. (A LOT OF PULL)

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

13. THE YOUNG MAN OF TODAY CAN EXPECT MUCH OF THE FUTURE. (FROM THE FUTURE)

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

14. THIS GENERATION WILL PROBABLY NEVER SEE SUCH HARD TIMES AGAIN.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

15. REAL FRIENDS ARE AS EASY TO FIND AS EVER.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**16. LIFE IS JUST A SERIES OF DISAPPOINTMENTS.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

17. ONE SELDOM WORRIES SO MUCH AS TO BECOME VERY MISERABLE. (THAT THEY GET VERY MISERABLE)

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

---

*Source: Rundquist, E. A. and Sletto, R. F., Personality And The Depression. Minneapolis: University of Minnesota Press, 1936. (Reprinted with permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the weights of these items must be reversed.

THE MORALE SCALE* (CONT'D.)

18. A MAN DOES NOT HAVE TO PRETEND HE IS SMARTER THAN HE REALLY IS TO "GET BY".

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**19. SUCCESS IS MORE DEPENDENT ON LUCK THAN ON REAL ABILITY.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

20. A PERSON CAN PLAN HIS FUTURE SO THAT EVERYTHING WILL COME OUT ALL RIGHT IN THE LONG RUN.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

**21. THE FUTURE IS TOO UNCERTAIN FOR A PERSON TO MAKE ANY PLANS.

How do you feel about the statement I have just read? Do you:

Strongly Agree Agree Undecided Disagree Strongly Disagree

---

*Source: Rundquist, E. A. and Sletto, R. F., Personality And The Depression. Minneapolis: University of Minnesota Press, 1936. (Reprinted with Permission).

**These are negative items; hence agreement with them is considered to reflect an unfavorable attitude. For purpose of scoring, the weights of these items must be reversed.

Appendix M.

Interviewer:_____

TEACHER INTERVIEW SCHEDULE I

First and Second Grades

Teacher_____Grade___School_____County_____

(Remind teacher to bring her class roll and records for reference)

How do you do, (Miss, Mrs., Mr.)_____, my name is _____. I am associated with the Kentucky Child Welfare Research Foundation. We are presently evaluating the Rural Child Care Project. As you probably know, the day care centers which are run by the Rural Child Care Project (Day Care Program) in_____ county are located in (at) _____ (and _____).

First, I would like to know about the children in your classes during the last <u>two years</u> (year). You may wish to refer to your roll book and records to answer these questions: (estimates are acceptable)

Total Enrollment 1966-67 (FIRST GRADE ONLY)	_____ M	_____ F
RCCP Children	_____ M	_____ F
"Other" Disadvantaged*	_____ M	_____ F
Total Enrollment 1967-68 (FIRST AND SECOND GRADE)	_____ M	_____ F
RCCP Children	_____ M	_____ F
"Other" Disadvantaged	_____ M	_____ F
Total Enrollment 1968-69 (FIRST AND SECOND GRADE)	_____ M	_____ F
RCCP Children	_____ M	_____ F
"Other" Disadvantaged	_____ M	_____ F

*Head Start only or no preschool whatsoever prior to first grade entry

Now I am going to ask you to make some comparisons between pupils in your classes, both the last two years (last year) and this year, who attended the Rural Child Care Project (Day Care Program) day care centers and the other disadvantaged pupils who did not participate in that particular program.

We are interested in the adjustment and achievement of the Rural Child Care Project children after they enter public school. Your evaluation of their school performance is needed to help us determine the effects of the Rural Child Care Project. We hope you will find the interview questions interesting and that you will give us your frank opinions. All of your answers will be confidential, of course. Do you have any questions before we start?

First, I'd like you to think about the disadvantaged children you had in your classroom the last two years (last year), not including children you have in this year's class:

1. Did you see any differences between Rural Child Care children and other disadvantaged children in their READINESS for first grade work (second grade work)?

   Yes____ Explain (RCCP >< "OTHER")_____

   No_____

   DK_____ Sex differences? _____

   NR_____ _____

   Example of difference _____

   _____

2. How about the children you have this year . . . (repeat)?

   Yes____ Explain (><) _____

   No_____

   DK_____ Sex differences? _____

   NR_____ _____

   Example of difference_____

   _____

3. By the end of the school year last year and the year before (last year) did you see any differences between former Rural Child Care Project children and other disadvantaged children in the progress they had made during first grade (during second grade)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

4. Were there any differences during the last two years (last year) between the Rural Child Care Project (Day Care Program) children and other disadvantaged children in the class in terms of emotional and behavior problems? (Examples: aggression, disruptive behavior, uncooperativeness; tendencies to withdraw, be shy, fearful or anxious)

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

5. How about your pupils <u>this</u> year . . . (repeat)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

6. Were there any differences that you saw between Rural Child Care Project (Day Care Program) children and other disadvantaged children during <u>the last two years</u> (last year) in their ability to make friends and get along with others?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

7. How about your pupils <u>this</u> year . . . (repeat)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

8. Did you notice any differences in the last two years (last year) between the former Rural Child Care Project (Day Care Program) children and other disadvantaged children in their desire to compete with other children? (or to be leaders?)

Yes____ Explain (><) _____

No _____

DK _____ Sex differences? _____

NR _____ _____

Example of difference _____

_____

9. How about your pupils this year . . . (repeat)?

Yes____ Explain (><) _____

No _____

DK _____ Sex differences? _____

NR _____ _____

Example of difference _____

_____

10. Have you found over the past two years (past year) that you had to discipline former Rural Child Care Project (Day Care Program) children differently from other disadvantaged children in your classroom? (Examples: spanking, scolding, isolation; effectiveness of verbal praise versus concrete rewards)

Yes____ Explain (><) _____

No _____

DK _____ Sex differences? _____

NR _____ _____

Example of difference _____

_____

11. How about your pupils <u>this</u> year . . . (repeat)?

Yes ____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

12. Recalling the children you have taught <u>over the last two years</u> (during last year), were there any differences between the Rural Child Care Project (Day Care Program) children and other disadvantaged children in their eagerness for learning experiences (examples: eager to do lessons, curious and full of questions compared to other school activities such as lunch, playground and singing)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

13. How about your pupils <u>this</u> year . . . (repeat)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

14. Did you observe any differences over the last two years (last year) between Rural Child Care Project (Day Care Program) children and other disadvantaged children in their willingness to pay attention to you when you gave instructions or were teaching them some new material? (to other adults, aides?)

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

15. How about your pupils this year . . . (repeat)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences?_____

NR ____ _____

Example of difference _____

_____

16. Were there any differences the last two years (last year) between Rural Child Care Project (Day Care Program) children and other disadvantaged children in their eagerness to recite or read aloud and to participate in class discussion?

Yes ____ Explain (><) _____

No ____

DK. ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

17. How about your pupils this year . . . (repeat)?

Yes ____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

18. Were Rural Child Care Project (Day Care Program) children any different from other disadvantaged children you taught in the past two years (last year) in their ability to get good marks (grades)? For example:

	Yes	No	DK	NR	(><) Explain	Sex Difference
Arithmetic	___	___	___	___	_____	_____
Spelling	___	___	___	___	_____	_____
Soc. Study	___	___	___	___	_____	_____
Science	___	___	___	___	_____	_____
Writing	___	___	___	___	_____	_____
Art	___	___	___	___	_____	_____
Other:_____	___	___	___	___	_____	_____

19. General difference in overall ability to get good grades?

Yes ____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

20. Were there any differences the last two years (last year) between the parents and families of the Rural Child Care Project (Day Care Program) and other disadvantaged children in their interest in the child's progress in school? (Examples: PTA attendance, visits with teacher, cooperation at home)

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

21. How about your pupils this year . . . (repeat)?

Yes____ Explain (><) _____

No ____

DK ____ Sex differences? _____

NR ____ _____

Example of difference _____

_____

O. K., now I am going to change the subject. The next few questions are about your opinions and evaluations of the Rural Child Care Project (Day Care Program) itself:

First, if someone asked you, "What IS the RURAL CHILD CARE PROJECT (DAY CARE PROGRAM) and what does it DO?" how would you answer their questions?

(Probe: Tell me what the Rural Child Care Project is. What are the goals or the purposes of the Rural Child Care Project?)

22. What is the Rural Child Care Project? _____

_____

23. What are the goals/purposes of Rural Child Care Project?

1. _____
2. _____
3. _____
4. _____

24. Now you have said that the RCCP is _____ (summarize above) _____

and that it does (its goals are): _____ (summarize above) _____

Is the Rural Child Care Project a success in achieving its goals, from what you know of it?

Yes _____ Why? (Evidence)_____

No _____ Why? (Evidence)_____

DK _____

NR _____

25. What changes would you like to see in the Rural Child Care Project?

1._____ Why?_____

2._____ Why?_____

3._____ Why?_____

4._____ Why?_____

26. In general, do you think such programs as the Rural Child Care Project are a good idea?

Yes ___ Why?_____

No ___ Why?_____

DK ___

NR ___

27. Do you think day care programs are worth the money they cost?

Yes ___ Why? _____

No ___ Why? _____

DK ___

NR ___

28. Do you think that day care programs, such as the Rural Child Care Project, should be just for the disadvantaged or poor people, or do you think they should be open to all children, regardless of their family's income?

Yes ___ Explain_____

No ___ Explain_____

DK ___

NR ___