

COGNITIVE AND AFFECTIVE GROWTH OF ELEMENTARY
SCHOOL STUDENTS WHO PARTICIPATED
IN SUMMER HEAD START

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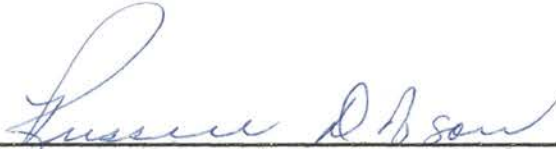
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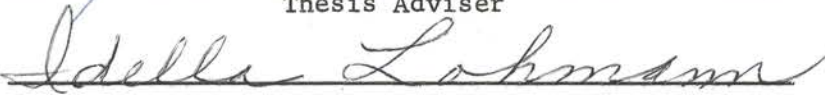
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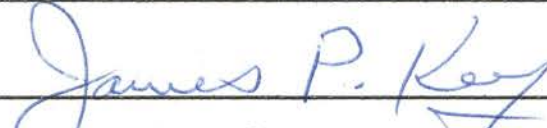
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CHAPTER I

INTRODUCTION

Children of low-income families are often deprived of a home atmosphere which provides experiences conducive to academic and social emotional growth. Due to these experiential deficits, youngsters from low-income homes very often suffer "progressive retardation"; that is, the more years they remain in school the further behind they become academically and socially. Project Head Start was designed as an intervention program for disadvantaged preschool children from low-income homes. The major purpose of the Head Start program was to prepare the child to meet the school's demands before he entered kindergarten or first grade in order that he might successfully cope with later school life. Thus, the long range goal was to prevent developmental deficits which hamper future academic and social success.

Project Head Start was funded by the Economic Opportunity Act of 1964 which was designed to provide opportunities for the families living in economically depressed areas to improve their standard of living. Passage of this federal legislation provided for the organization and funds necessary to encourage local communities and school districts to conduct preschool educational programs for children residing in areas of high concentration of low-income families.

Project Head Start began as an eight-week pilot program in the summer of 1965 with an enrollment of slightly more than one-half

million children. Later that year the program was expanded to include full-year services.

In western Kansas, the Unified School District No. 443, Ford County and Dodge City, Kansas, applied for and received funds to conduct an eight-week summer program for disadvantaged children during the summer of 1966. Approximately twenty percent of all the youngsters from the high concentration of low-income families in the local school district eligible for kindergarten in the fall of 1966 participated in the compensatory program. The program was designed to provide pre-school experiences which would improve the kindergarten readiness of these children, and hopefully result in more effective academic achievement and improved self concepts.

There has been no attempt by the local school district, however, to evaluate the cognitive and affective development of these children as a group on a longitudinal basis.

Justification of the Study

Most compensatory educational programs, such as Head Start, are usually evaluated on a pre-test and post-test basis; and the educational gains, if any, are reported upon the termination of the project or school experience. The economic feasibility of compensatory educational programs must be assessed on the basis of lasting gains as well as immediate gains. Such an assessment can only be achieved through longitudinal research.

Project Head Start is an educational experiment to explore ways of intervening into early developmental process to improve the abilities, attitudes, health, and well-being of young children and their families.

Even though one might safely assume that teachers may be better prepared to cope with the cognitive and affective growth of all children than were their counterparts of a decade ago, the intensity and complexity of societal and school problems confronting disadvantaged children may have increased.

Throughout discussions of human deprivation, there is a tendency to emphasize the external inadequacies of the environment, especially in consideration of the economics of deprivation. There is, however, a very powerful dimension of deprivation which is personal and subjective, and which is usually the result of learning. In one manner of speaking, education is the culprit in the person's development of subjective deprivation, for so long as the person remains in a state of ignorance, he cannot compare himself and his life style to that of another. For deprivation to be subjective, the individual must desire something better than that which he has at any given time or under current circumstances. Until recently, the disadvantaged parent knew the inadequacies of his environment and yet was powerless to change the environment. As these parents became aware and active in an educational program, such as Head Start, they demanded that schools begin to prepare their children for a better life than they themselves would ever hope to have.

In any event, the teacher variable, the community variable, the societal variable, and the pupil variable may have changed in the last decade. Such changes are worthy of new analysis. Compensatory educational programs designed for children in 1965 may not be significant for the children of 1971. Consequently, the major concern of this investigation was to determine if the conclusions derived from research

concerning the academic and social growth of children who have participated in summer Head Start programs are still tenable.

This study of two groups of educationally disadvantaged children in the local school district is to compare the gains in academic achievement and levels of self concept over a period of five years. One of the groups consists of children who participated in the Head Start summer program of 1966. The other group is composed of children who would have been eligible to attend a Head Start program in 1965 if there has been a summer Head Start program at that time.

Therefore, specifically, the purpose of this study is to determine whether two groups of disadvantaged children in the local school district achieve and maintain any significant differences in academic development or in adequacy of self concept after a period of five years has elapsed.

Answers to the following questions will be sought: (1) Do children who attended summer Head Start and are now in the fourth grade of school differ in their academic development from comparable children who did not attend Head Start? (2) To what extent are children in the fourth grade who attended the summer Head Start program different in their self concept from comparable children who did not attend Head Start? (3) Do the children that attend Head Start summer programs maintain gains over a period of five years in comparison with children who are eligible, but do not attend Head Start?

Basic Hypotheses

This study proposes to established a basis for the testing of the following hypotheses:

Hypothesis One. The academic achievement of fourth grade pupils who attended the Head Start summer program will be significantly higher than a comparable group of fourth grade pupils who did not participate in the program.

Hypothesis Two. The number of pupils retained in the lower primary grade level is significantly lower in the group of children who attended the Head Start summer program when compared to a comparable group who did not participate in the summer Head Start program.

Hypothesis Three. The intelligence scores of pupils who attended the summer Head Start program are significantly higher than a comparable group of pupils who did not participate in the summer Head Start program.

Hypothesis Four. The self concept of pupils who attended the Head Start summer program will be significantly greater than a comparable group of pupils who did not attend summer Head Start.

Hypothesis Five. The attendance record of pupils who attended summer Head Start will be significantly higher as compared to a comparable group of pupils who did not attend summer Head Start.

Definition of Terms

For the purposes of this study, the following definitions were used:

Academic Achievement. Good (1945, p. 34) in the Dictionary of Education described academic achievement as:

- (1) Knowledge attained or skills developed in the school subjects, usually designated by test scores or marks assigned by teachers, or by both;
- (2) the achievement of pupils in the so-called 'academic' subjects, such as reading, arithmetic, and history, as contrasted with skills developed in such areas as industrial arts and physical education.

In addition, and as used in this study, academic achievement is further limited to those outcomes of the school program which are measured by the Stanford Achievement Tests.

Disadvantaged Children. Passow (1967) states that the term disadvantaged is one of several applied to a diverse and heterogeneous population--often of minority racial or ethnic status--whose members suffer from economic and cultural deprivation. In school, the disadvantaged student often exhibits severe academic retardation, an alarmingly high dropout rate, and little participation in higher education.

Head Start Eligibles. Children living in the area of high concentration of low-income families who were eligible to attend a summer Head Start program in 1965, but could not participate because the program was not available during that year. These pupils are referred to as Head Start Eligibles and are the control group in this study.

Head Start Participants. The pupils who participated in the compensatory preschool program offered by the Office of Economic Opportunity and the Unified School District No. 443, Ford County and Dodge City, Kansas, during the summer of 1966. These pupils are referred to as the Head Start Participants and are the experimental group in this study.

Local School District. The schools operated by the Unified School District No. 443, Ford County and Dodge City, Kansas. The local school district operated Head Start as a delegant agency under the Office of Economic Opportunity.

Project Head Start. The Economic Opportunity Act of 1964: Public Law 88-542, Title II A, Section 205, authorized special programs to

help disadvantaged children from low-income families. The Project Head Start program is designed to assist economically disadvantaged pre-school children to achieve their full potential. Its broad objectives are to improve abilities, attitudes, health and well-being of young children and their families.

Self Concept. Blackham (1967) sees self concept as being primarily a product of social learning. It is the manner in which one characteristically views and evaluates himself, or feels about himself. In a sense this is the core of one's being and is the end result of all of one's experiences.

Major Assumptions

For the purpose of this study, the following assumptions were posited:

1) The Head Start Participant group and the Head Start Eligible group selected for this study are comparable in physical, social, and emotional development.

2) There were no differences in the parental attitudes toward school and educational aspiration between Head Start Participant families and Head Start Eligible families.

3) The Kuhlmann-Finch Intelligence Tests and the Stanford Achievement Tests used in this study provide a valid instrument for measuring academic achievement.

4) The "Children's Self Concept Scale" (CSCS) as prepared by Piers (1969) provides a valid instrument for measuring self concepts of children.

5) There are no significant differences in the scores obtained from the CSCS because of the one year variable at the time of administering the scale.

Limitations

The following limitations apply to this study:

1) Normal changes related to the maturation and the development of the subjects may be confused with the results of the experimental treatment.

2) There will be differences between the teachers that worked with the pupils in the Head Start summer program and in the primary school years that followed.

3) This study is limited to one entire local school district and to the 1966 summer Head Start program which served that school district.

4) The pupils used for this study consisted of disadvantaged children who were eligible to attend compensatory preschool programs offered at the Office of Economic Opportunity Child Development Center during the summer of 1966. However, the Head Start Eligibles were children not able to attend because the program was not available during the summer of 1965 in Dodge City, Kansas.

Summary and Organization of the Study

Chapter I of this study has provided background information to the study. The purpose of the study, as well as the hypotheses to be tested, have been identified. The terms used frequently in this study are defined. Finally, the major assumptions and limitations basic to this study have been stated. The format for the succeeding chapters is

as follows: Chapter II treats the selected, related literature which was reviewed for this study. Chapter III relates the methodology and design of the experimental nature of this study. Chapter IV presents the analysis of data collected for this study. Chapter V presents the findings and makes recommendations in relation to these conclusions for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Two major objectives were pursued in this review of related literature: (1) to examine sufficient research to establish that the culturally disadvantaged child has been well recognized as a child needing special help, and (2) to report some results from Head Start programs since 1965. Head Start has been the most massive plan for change to prevent failure of the culturally disadvantaged child ever initiated by this nation.

Project Head Start is a program for preschool children and their families, specifically those who are economically disadvantaged. It is a long-range program to create, with the parents' participation, a procedure through which a child can attain and maintain a favorable degree of physical, emotional, and spiritual health; and thereby contribute not only to his own well-being, but to the well-being of society as a whole.

According to Hunter (1970, p. 149):

Head Start programs necessarily embodies many components, including in addition to its well-known educational aspects, health, nutritional, psychological, and social services. The effort is to make each of these services part of an integrated whole, in which they are inter-related in a way that will contribute to the total developmental experiences of children and their parents. An equally significant goal is to have a positive effect upon those individuals and

institutions in the community who are responsible for providing services to children and their families.

MacKintosh et al (1965) believe there is growing conviction that schools can help children from the lower socio-economic areas make up for many of their out-of-school deprivations. Teachers are being challenged to demonstrate their professional skill by bringing these children into the school two years before first grade and providing them with personal and group experiences of a broadening nature in surroundings which, for a few hours each day, assure them of happiness and growth in needed areas.

Gordon (1965, p. 385) gives an overview of the research done on the culturally deprived condition as it existed in 1965:

In the first place, such research tends to generalize with respect to a population which is probably infinitely variable. There is probably no typical 'socially disadvantaged child', but instead a wide variety of such children with widely varying characteristics. To describe them and plan for them as a group is hence in error; differential psychology is as important here as in any other area. Secondly, to establish the fact or correlation between certain conditions and poor school adjustment or certain characteristics and underdevelopment is not to establish the fact or causation. Our efforts at documenting the characteristics have not identified the cause, nor have they pointed clearly toward courses of remediation. It remains for research to determine the nature of learning facility and disability in this population; to determine those circumstances under which certain characteristics and conditions result in success and under which others result in failure; to develop more sensitive and accurate procedures for the assessment of potential for development as well as for behavioral change; and to determine those conditions necessary for appropriate development where existing pedagogical principles and technology are inappropriate to the learning experiences required for a wide variety of underdeveloped learners.

The research for ten years previous to 1965 concerning the socially disadvantaged child, as stated above by Gordon, indicated that in most cases such children of the poor had a home environment and a family status different from the middle class; had cognition,

intelligence manifestations, perceptual styles, and patterns of intellectual function different from the middle class; and had motivation and aspiration goals different from the middle class. This pattern of showing that there is a difference is quite well established, but this survey of the literature clearly revealed that little has been done beyond indicating a difference between the disadvantaged and the advantaged.

Until 1960, it mattered little that professionals disagreed about the goals and objectives for educating preschool children. As pointed out by Sears and Dowley (1963), the primary purpose for establishing preschools of this nature has been largely adult- rather than child-centered. The preschool programs of the 1920's were established primarily to instruct parents about child care; the programs of the 1930's to provide employment for teachers during the depression; and the programs of the 1940's and 1950's to provide day care for the children of working mothers. It was not until the emphasis was placed on the needs of disadvantaged children that early childhood education was forced to focus on the needs of children rather than on the needs of adults.

Deutsch (1965, p. 5) lists four assumptions concerning early intervention or compensatory efforts:

1. Earlier intervention is always superior to later.
2. Any intervention program is better than none.
3. If a rich, structured program is begun for children when they are three or four years of age, it will ignite growth potential which up to then has been dormant in the child.
4. Where there has been limitation of environmental encounters, the child should be exposed to as much compensatory stimulation as possible.

What seems clear from the current concern with developing early intervention and compensatory programs for the disadvantaged, according to Passow (1967), is that the entire educational structure should be changed. He believes that simply preparing the disadvantaged child for a curriculum and an education program which, at bottom, is weak, can only delay and compound the disappointments.

Fantini (1966) accentuated what Passow stated by saying:

. . . given an outdated, educational system all learners are viewed as disadvantaged. One need only examine the drop-out rate in college, the performance of most citizens in the wider social arena, the apathy toward social injustice, to highlight this issue. It appears that if Sputnik rendered the educational system inadequate for the privileged, it certainly will be inadequate for those who are underprivileged.

Passow continued by advocating that the task the educators face is not simply that of bringing the disadvantaged child to the point where he is "equal" to his middle class peers when he enters the primary grades, but rather one of unlocking cognitive and motivation potential.

Three progressive goals for planning intervention programs can be defined, according to Deutsch (1965, p. 16):

1. Preventing or arresting the cumulative deficit, so that disadvantaged children will not continue to lose ground.
2. Facilitating maximum growth and utilization of potential in order to devise environment, strategies, and techniques to make it possible for more children 'to learn to learn' and to be more self-initiating and self-propelled in the learning process.
3. The blending of developmental goals for all early childhood programs with the special efforts for the disadvantaged.

Education for the disadvantaged learner must be superior to that arranged for the privileged student in a favored school, suggests Passow (1967). It must heighten his ego development and yield a

positive self-image, preparing him for taking his place in the mainstream of society. A curriculum for the disadvantaged student must find ways for reversing the image he has of himself. Education must develop the learning-how-to-learn skill that has been lacking over a long period of time in his life.

The case of early childhood education has been urged even more strongly over the past few years; the possibilities of such education are just introducing themselves. The potential for using the preschool years for cognitive education, Fowler (1962) believes, are many:

Most obvious is the availability of more years of childhood to absorb the increasingly complex technology of modern society, a technology already requiring many of the more productive years of development to acquire. A second less evident but more crucial possibility is that conceptual learning sets, habit patterns, and interest areas may well be more favorably established at earlier rather than later stages of the development cycle.

Goldberg (1964) has set forth eight propositions which, from psychological and pedagogical evidence, seem to characterize approaches which have been relatively successful with disadvantaged pupils.

1. Each pupil's status in each learning area has to be ascertained. Teachers must begin where the pupil is, regardless of grade level; age differential and materials must be appropriate to his present level. No assumption can be made about the child's prior knowledge derived from home or neighborhood experiences.
2. Each pupil merits respect as a person, appreciation of his efforts, and understanding of his problems. The teacher must not show by word, look, or gesture that the child's inability to perform adequately or his lack of comprehension of even the most rudimentary concepts is shocking or disturbing.
3. All procedures need to be placed in accordance with the pupil's speed of learning. No assumptions should be made that a child has grasped what has been taught until he is able to demonstrate his grasp over and over again in a variety of contexts.

4. The learning situation should provide a maximum of positive reinforcement and a minimum of negative reinforcement. Self-teaching materials, as well as the teacher, should confront the learner with as few tasks as possible in which there is a high probability of error.
5. The learning situation needs to have a high degree of structure and consistency so that the child knows what is expected of him at all times and is neither confused nor tempted to test the limits through inappropriate behavior.
6. The classroom as well as after-school learning activities should provide as much one-to-one teacher-pupil contact as possible.
7. Materials should be related to the world of the learner but not limited to his immediate environment. Stories about cowboys and rockets may prove more exciting and thus, a better learning medium than those about the local firehouse or sanitation truck.
8. One additional proposition needs to be stated, derived not from evidence but from the basic values underlying education in a democracy: Although the school must start with the learner where he is, its responsibility is to enable him to move as far as he can go--which is often much further than he himself regards his limits.

Passow (1967, page 94) summarized Goldberg's eight propositions by saying:

Early childhood programs of the future will have to give far more attention to the learning environment as it affects the ego-development and self-concepts of disadvantaged children, especially those from racial and ethnic minority groups. Attitudes and biases of teacher--conscious or not--shape behavior patterns in children.

Bloom (1964, page 218) presented hard evidence supporting Maria Montessori's insight of over fifty years ago that a child's early years are crucial in learning. According to Bloom, a child develops half of his intelligence by age four, eighty percent by age eight, and the remaining twenty percent from ages eight to seventeen. The central thesis which emerges from Bloom's analysis is that:

. . . change in many characteristics become more and more difficult as the characteristics become more fully developed.

Although there may be some change in a particular characteristic at almost any point in the individual's history, that amount of change possible is a declining function as the characteristic becomes increasingly stabilized.

Berube (1969) stated, "How better to break the 'poverty cycle' than by giving him a 'head start' in the educational race, and eventually, a passport into a meritocratic society?"

Research for Change of the Disadvantaged

In the summer of 1965 the first Head Start program was begun. Approximately 561,000 children in 2,398 communities participated in the Office of Economic Opportunity program. Eighty-five percent of the children who attended Head Start had to be "from families with income under three thousand dollars with five hundred dollars allowed per dependent child to a total of six thousand dollars," according to Whritner (1965).

Osborn (1965, p. 29) wrote at the conclusion of the 1965 Summer Head Start program:

The program attempted to provide some of the medical, nutritional, and educational advantages that children of more affluent parents enjoy. It attempted to give these children a better beginning--or as we at the Office of Economic Opportunity call it--a Head Start.

Parks (1967, p. 6) wrote about the activities Head Start had begun and suggested that there should be special attention provided in the first grade. She stated:

Head Start was designed to help these disadvantaged children get to the schoolhouse doors better prepared for what they faced than were their older brothers and sisters. . . . Research has demonstrated that the gains which children made in Head Start classes often are lost in the transition to classroom work in regular schools, unless these schools also provide special attention.

R. Sargent Shriver, Director of the Office of Economic Opportunity (1967), tells this story of a child in the first grade in New York that completed Head Start. During the ensuing weeks he was sent home several times for being a disruptive influence on the rest of the class. His Head Start teacher, hearing of this, contacted the first-grade teacher to ask what the child had done. She was told that the child kept asking questions and walking around the classroom, touching things and wanting to know what they were. The first-grade teacher did not permit this type of behavior as the other children might try to do the same.

A note of warning about possibly different processes was also noted by Vernon (1966, p. 84) when she stated that the gains of summer Head Start, with classes of only fifteen students, and a teacher especially directed to help the children of the poor, were meeting less opportune conditions in the first grade:

Head Start has shown that it can be done--that, given small groups, trained teachers, good equipment, and the proper encouragement, children can gain at an unprecedented rate. But send these children on to a kindergarten or first grade where there are thirty in a room, poor tools of learning, and a teacher with an inadequate background in working with young children and it is survival of the most favored. To build on gains of Head Start, we need thousands of teachers who are solidly trained in early childhood education, who can accept deviation from the 'norm' of attitudes and behavior, and who have a high tolerance level for the hurly-burly of an informal classroom.

Head Start is getting the ball rolling. Now the schools must be ready to pick it up and run with it.

The "Six Months Later" study which was made in the fall of 1965, compared kindergarten children who had participated in the Head Start program with their classmates who had not. Wolff and Stein (1967) found that Head Start children tended to be ranked higher in their

kindergarten classes (first to third deciles) in greater proportions than children who had not had Head Start, after six months of kindergarten. They appeared with less frequency in the bottom three deciles of the class than non-Head Start children. The assessments were taken through the use of the Caldwell Preschool Inventory and checked against the independent teacher rankings of the children's readiness for first-grade work.

The relationship between readiness scores and selected socioeconomic factors of families which qualified for participation in a Head Start program was made by Coker (1966). The study included a comparison of the readiness test scores of pupils who were eligible but did not attend with pupils who did participate in the summer program. There were significant differences in readiness as measured by the Metropolitan Readiness Tests at the beginning of the first school year. Disadvantaged children who had participated in the Head Start program had significantly higher scores at the .05 level of confidence, as determined by the t -test, than did the children who did not participate.

Eisenberg found in a study at John Hopkins University that Head Start children gained approximately thirty-one to forty points on the Peabody Picture Vocabulary Test (PPVT) as compared to non-Head Start children. In his summary, Eisenberg (p. 4) states:

Our field study has provided substantial evidence on two independent measures that the children enrolled in Head Start in Baltimore in the summer of 1965 made substantial progress on attributes related to subsequent school success.

Cowling (1967) studied one hundred and sixty-eight children in her investigation of the Head Start summer program. Eighty-four of the pupils participated in the 1965 Head Start program while the other half did not attend, even though they were eligible. The Metropolitan

Readiness Tests were used to measure the scholastic readiness of the students. Total raw scores obtained by the pupils on the tests showed a significant difference in readiness between the two groups of children. Higher scores were recorded for the Head Start group of children at the .001 level of confidence.

Weikart (1967) reported on the intellectual and academic progress of children who were studied from preschool Head Start through the completion of second grade. With respect to intelligence, preschool participants demonstrated a change from a mean of 78.4 at the beginning of Head Start to a mean of 91.1 at the conclusion of the one-year experience. Experimental subjects rose to 82.2 from an initial mean of 75.0. Experimental subjects showed a gradual decline over the next three years, and at the completion of second grade, the means were 85.5 and 83.9 for participants and non-participants. Differences between the two groups at the end of the first grade and at the end of the second grade, on measures of reading, arithmetic, and language skills, were significant on five of six tests. However, the mean percentile rank of the participants decreased from twenty-two at the end of the first grade to eighteen at the conclusion of the second grade; the control group decreased from a mean rank of five to a rank of three during the same period. In spite of the fact that participants and non-participants in Head Start were significantly different on academic measures, it appears that both groups were considerably below expectancy.

DiLorenzo and Salter (1967) have studied the effects of preschool upon disadvantaged and non-disadvantaged children. They note that preschool programs do have an impact upon the disadvantaged. The pattern

of the impact is somewhat different from one year to the next and for one method of assessment in contrast to another. For example, Stanford-Binet differences between the experimental and the control group for the 1965 sample occur as a result of a larger intelligent quotient drop by the control group than the experimental group (C = 90.75 to 88.20, E = 90.97 to 90.07); whereas, in the 1966 sample, the experimental group rose from 92.66 to 96.71 while the control group regressed slightly, 90.97 to 90.01. The pattern for the Peabody Picture Vocabulary Test showed considerable gain for both groups. The differences resulting from preschool were maintained through kindergarten for the experimental groups, although there was no further differentiation.

Klaus and Gray (1968) conducted a study of the developmental status of experimental and control subjects in the southeastern part of the country. One group participated in three ten-week summer sessions and the other had two ten-week summer sessions. A local and a comparable control group were established. Specific to academic attainment as measured by the Metropolitan Readiness Test, the Gates Reading Readiness Test, and the Stanford Achievement Tests, the effects of preschool education consistently favored the participants.

Diehl (1967) was one of the first to attempt a longitudinal evaluation of the Head Start program. The investigation employed a pre-test and post-test method of comparing a group of children who had attended a 1965 Head Start summer program with a comparable group who did not participate. The Lee-Clark Readiness Test and the Peabody Picture Vocabulary Test were administered prior to the Head Start summer program and again after seven weeks of kindergarten in the fall. The

t-test was used to determine the significance in the means of the difference of the two groups. The Head Start pupils did significantly better than their counterparts. The investigator concluded that the Head Start summer program provided a more effective learning environment than was found in the first seven weeks of a public school kindergarten program. The investigator also observed that the public school kindergarten was more academically oriented when contrasted with the child development approach used in the Head Start program.

A study to compare the academic achievement of children who had attended a Head Start program with a matched group who had not participated was conducted by Bickham (1967). Negro and white first-grade students in two groups were evenly distributed and were matched by their attendance or non-attendance at the Head Start program. The Primary I Battery of the Metropolitan Achievement Tests was administered to the ninety-eight youngsters in the last month of the first-grade school year. The t-test technique and a Zero-Order correlation were used to analyze the data. There was no significant difference in the test scores of the two groups as measured by the test instrument. The investigator concluded that although the test scores for the Head Start group were consistently higher on all four tests administered, there was no statistically significant difference in the academic achievement of the two groups as measured by the test instrument.

One of the most comprehensive studies of Head Start was conducted for the Office of Economic Opportunity from June 1968, through May 1969, by the Westinghouse Learning Corporation and Ohio University (1969). This study directed itself to the question: To what extent are the children now in the first, second, and third grades who

attended Head Start programs different in their intellectual and social-personal development from comparable children who did not attend?

The Westinghouse study sampled children from one hundred four Head Start centers who had gone on to elementary school with a controlled group from the same schools. The controlled group had not attended Head Start. Formal tests were administered. Separate data analyses were conducted for those children who had attended summer and full-year programs.

No significant differences were found between Head Start and control children from either the summer or full-year participants on the Illinois Test of Psycholinguistic Abilities. Head Start children from full-year programs who were entering first grade scored significantly higher than non-Head Start students on the Metropolitan Readiness Test. Head Start children from summer programs did not score significantly high on the Metropolitan Readiness Test. No significant differences were found between Head Start (summer and full-year participants) and the control children at the second grade level on the Stanford Achievement Tests.

On the tests to measure the affective development, the Children's Self-Concept Index (CSCI) and the Classroom Behavior Inventory, the Head Start children from both the summer and the full-year programs failed to score significantly higher than the control groups. However, when national samples were broken down into geographical regions, city-size groups, and racial composition, significant differences favoring Head Start participants from year-long programs were found. On the basis of findings, the following conclusions were made by the

Westinghouse report:

1. Summer programs appear to be ineffective in producing any gains in cognitive and affective development that persist into the elementary grades.
2. Full-year programs appear to be ineffective in regard to measures of affective development used in the study, but appear to be somewhat effective in producing gains in cognitive development that could be detected in grades one, two, and three. Programs appeared to be of greater effectiveness for certain sub-groups of centers, most notably in all-Negro centers in southeastern United States and in scattered programs in the central cities.
3. Head Start children, whether from summer or full-year programs, still appear to be in a disadvantaged position with respect to national norms for the standardized tests of language development and scholastic achievement.
4. Parents of Head Start enrollees voiced a strong approval of the program and its influence on their child. They reported substantial participation in the activities of the center. (pp. 0-4 - 0-5).

In summary, the Westinghouse study (1969) reported that the Head Start children cannot be said to be appreciably different from their peers in the elementary grades who did not attend Head Start in most aspects of cognitive and affective development measured in the study, with the exception of the slight, but nonetheless significant, superiority of full-year Head Start children on certain measures of cognitive development.

According to Williams (1970, p. 119) the "real battle is not over the methodological purity of this particular study, but rather involves fundamental issues of how the federal government will develop large-scale programs and evaluate their results."

Summary

In summary, compensatory early childhood education programs fall along a continuum between two major approaches to intervention in the

life cycle. These may be roughly categorized as enrichment programs and concentrated instructional programs. Until the late sixties, most of the early childhood programs could be classified within the enrichment domain. These programs reflect emphasis upon the "whole child", and deliberate efforts are posed to assist the child in physical, social, emotional, and mental growth. These programs were an extension of the usual nursery school-kindergarten methodology which has apparently enjoyed success with predominantly middle-class children.

During the latter part of the sixties, a new program of experimentally oriented compensatory educators began to test the assumption that what is good for middle-class children, with some modifications, should also be good for disadvantaged children. They developed instructional approaches designed to focus attention toward the child's obvious cognitive disadvantages, particularly language and conceptual deficiencies. The assumption was that the improvement of these skills would allow the child to exercise increasing control over his own environment; and, consequently, he would be able to improve self-concept and social skills. This assumption does not imply necessarily that its proponents lack concern for the crucial social and emotional dimensions, but rather that some educators view development in these areas as a by-product of the child's increasing control over his own cognitive development.

This review of the literature also presented research concerning the disadvantaged child's readiness for school as the criterion for evaluation. The disadvantaged student is easily recognized in school by his low academic performance. He has experienced many failures and few successes in academic areas. He is from a low economic level

family, and his home environment is different from that of the middle class. The cause for this low academic performance has not been found, although there are many positive correlations between certain existing conditions and his poor school performance.

In general, investigators found that the children who participated in the Head Start programs scored significantly higher on readiness tests than children of similar backgrounds who did not attend the Head Start programs.

Attempts to evaluate the long-range effects of the Head Start program are few in the literature. Only the Westinghouse study included the second and third grades in their population of cognitive and affective development. Most of the studies found no significant differences between the two groups over an extended period of time.

No report of research was found dealing directly with intelligence, academic achievement, retention, self-concept, and attendance of pupils who attended Head Start compared with children who had been eligible but did not participate in the Head Start program.

Chapter II has presented a brief resume of literature and research pertaining to the related areas of this study. It is intended that the reader would be able to develop a perspective and conception of the need leading to this experimental study in preschool compensatory education.

Chapter III will present a detailed description of the research design and the execution of the study.

CHAPTER III

DESIGN OF THE STUDY

This study was designed to compare the long-range academic achievement and self concept difference of two groups of disadvantaged children in the Unified School District No. 443, Ford County and Dodge City, Kansas. One of the groups consists of pupils who participated in a Head Start summer program. The other group is composed of children who were eligible to attend a Head Start program but did not participate. The study further attempts to determine significant retention, intellectual and attendance differences between the two groups.

The Population

The pupils participating in the present study attend the same elementary school and have attended that same school since kindergarten. The school is located in an area of high concentration of low-income families of the local school district. These pupils are divided into two groups:

- 1) Those pupils who attended the Project Head Start program in the summer of 1966;
- 2) A comparable group of pupils who were eligible to attend a Project Head Start program in 1965 but were unable to do so because the program was not available.

The Instruments

Three different standardized tests were used in obtaining data for this study.

Stanford Achievement Test

All pupils involved in the study took the Stanford Achievement Test during the middle part of their fourth grade year. This battery consists of a series of nine comprehensive achievement tests developed to measure what the authors consider to be the important knowledges, skills, and understandings commonly accepted as desirable outcomes of the major branches of the elementary school curriculum.

This instrument includes tests of reading, arithmetic, spelling, language, word study skills, and concepts of science and social studies. Reading achievement is measured by means of three separate tests: Word meaning, paragraph meaning, and word study skills. Three tests are used to measure achievement in arithmetic. One test deals with arithmetic computation, another in arithmetic concepts, and the other test is limited to arithmetic applications. Science and social studies concepts are combined in one test. The battery provides an independent test for both spelling and language.

The validity of this instrument was determined in terms of the content of the tests and by the correlation of a representative sample of the skills and knowledges which are the goals of instruction. This content validity was assessed through a careful analysis of the actual content of each subtest in relation to the objectives of instruction in the various fields.

The reliability of this instrument was investigated by its originators using the odd-even split-half reliability coefficients, Kuder-Richardson reliability coefficients, and standard errors of measurement in terms of grade scores for each subject in the battery from a random sample of 1000 pupils in grade four from seventy-six school systems.

The Piers-Harris Children's Self Concept Scale

On the grounds that a positive self concept is essential to effective learning and that one of the goals of Project Head Start is to instill in a child a positive self concept, the Piers-Harris Children's Self Concept Scale (CSCS) was administered as a way of measuring affective characteristics in the study to assess the degree of positive self concept in children in both major groups.

The CSCS entitled, "The Way I Feel About Myself," is a quickly completed (15-20 minutes) self report instrument designed for children over a wide age range. Administered in group form, it requires approximately a third grade reading knowledge. It can be administered and scored by responsible, educated non-psychologists; but should be interpreted only with the aid of someone knowledgeable in measurement and statistics, psychology of adjustment of children's self attitudes, and correlation of these attitudes.

The items are written as simple declarative statements, e.g., "I am a happy person." At least half are negative in content, e.g., "I behave badly at home", in order to reduce effects of acquiescence; but negative terms such as "don't" were avoided insofar as possible, in order to reduce the confusion of a double negative.

In its final form, the CSCS consists of eighty items. Factors involved in the content of the CSCS are those which seemed most relevant as a determinant of self concept in the early primary years. The subject's self-perception with respect to peer acceptance and positive reinforcements in the home and at school were the major areas of emphasis. The reliability and internal consistency of the CSCS to judge the homogeneity of the test, the Kuder-Richardson Formula 21, was employed with resulting coefficients ranging from .78 to .93. The authors, as a check, applied the Spearman-Brown odd-even formula and found resulting coefficients of .90 and .87 respectively.

An attempt was made at the outset, stated Jersild (1952), to build validity into the CSCS by defining the universe to be measured as the areas about which children reported qualities they liked or disliked about themselves. Items were written to cover all these areas, but during the item analyses non-discriminating items were dropped so that the final scale no longer covers every area to the same degree.

Children's self reports have typically corresponded only slightly with the way their teachers and peer rate them, reports Piers (1965). Piers obtained correlations with fourth-and-sixth graders which ranged from non-significant to .49. There was a slight tendency for greater correspondence with girls' ratings, and for peer rating to correspond better than teacher ratings with self-report. For a copy of "The Way I Feel About Myself" see Appendix A.

Kuhlmann-Finch Intelligence Tests

This is a battery of eight test booklets planned to cover the range of intelligence from grade one through high school. For this

study, the booklet contained five subtests, three verbal tests, and two non-verbal tests. Pictures and diagrams are well drawn, and the material is interesting and clear. The tests are timed, but are essentially power tests.

The Kuhlmann-Finch Intelligence Tests are well standardized. The original standardization sample consisted of approximately 10,000 children. In this testing, the range of difficulty in each test was found to be suitable and the discriminative power of the items was high. Boys and girls did about equally well on the tests. In one group of one hundred ninety-seven thirteen-year-olds, the correlations of test scores with an index of cultural status ranged from .19 to .27 for various types of test material. This is taken as evidence that the tests are not simply the products of culture. No correlations with criteria are given, as the author believes the tests to be validated sufficiently through their method of construction.

Evidence for reliability is found in the fact that the tests do not show an increase in score under unlimited time and in the high split-half correlations. Within-age reliability, coefficients for age six to seventeen range from .86 to .92 for samples of from one hundred ten to two hundred fifty pupils.

Collection of Data

The administrative officers of Unified School District No. 443, Ford County and Dodge City, Kansas, granted permission for this investigator to examine pupil cumulative record folders and to extract information pertinent to this study. The record folders of the fourth grade Head Start Participants and the Head Start Eligibles now enrolled

in the fifth grade were examined to find information. Biographical information on each child, such as sex, age, ethnic group membership, and school attendance, was recorded. Test scores were recorded from the Kuhlmann-Finch Intelligence Tests and the Stanford Achievement Tests. The cumulative record folder also contained information concerning the pupil's progress rate.

The investigator administered the Piers-Harris Children's Self Concept Scale (CSCS) to both groups of students during the spring semester of 1971.

Data Analysis

The main analysis of this study is concerned with the following question:

Do individuals now in the fourth grade who have had Head Start experience in a summer program differ significantly in cognitive and affective development from comparable individuals now in the fifth grade who did not participate in a summer program?

To determine significant differences between two means, the t -test was used for each of the variables to be studied. The appropriate statistical model was selected to measure the significant difference according to Popham (1967). The t -test was also used for the comparison of the Children's Self Concept Scale (CSCS). The Ferguson (1966) z -test was used to test the difference between comparing rate of retention at the end of the fourth grade. Simple percentages were used to describe differences in other comparisons.

The following chapter will present the data derived from this investigation and relate the analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

Results obtained from the analysis of the data collected for the present study are presented in this chapter. Before viewing findings as they are related to the hypotheses, it seems appropriate to view the population and the demographic characteristics of the two major groups. The population used for this study consisted of forty-seven disadvantaged children who were eligible to attend the Head Start summer program of the Unified School District No. 443, Ford County and Dodge City, Kansas. Basic information concerning the distribution of the pupils is presented in Table I.

The two major groups attended the same elementary school during their first five years of schooling. The Head Start group in this study are referred to as Head Start Participants. They attended the eight week summer Head Start program during the year 1966. The non-Head Start group are referred to as Head Start Eligibles. This group was from the same community and neighborhood as the Head Start Participants. They were eligible under the Office of Economic Opportunity regulations to participate, but no program was held in 1965; hence they did not attend a summer Head Start program prior to their entrance into school. Head Start Eligible students are one year older than Head Start Participant students. At the time of the present study, the

Head Start Participants were in the fourth grade and the Head Start Eligibles were attending the fifth grade.

TABLE I
DISTRIBUTION OF HEAD START PARTICIPANTS AND
THE HEAD START ELIGIBLES ACCORDING TO SEX
AND ETHNIC GROUPS

Item	Head Start Participants (N=23)	Head Start Eligibles (N=24)	Total Pupils (N=47)
Boys	12	15	27
Girls	11	9	20
Afro-American	7	2	9
Mexican-American	11	18	29
Anglo-American	5	4	9

The achievement, intelligence, and self concept scores for the students who attended summer Head Start and the students who did not attend summer Head Start are reported in Tables II, III, and IV. Table II shows the mean and standard deviation of student's performance scores on the Stanford Achievement Tests at the fourth grade level.

TABLE II

MEANS AND STANDARD DEVIATIONS OF GRADE FOUR STUDENTS'
SCORES ON THE STANFORD ACHIEVEMENT TESTS

Areas	<u>Head Start Participants</u>			<u>Head Start Eligibles</u>		
	n*	Mean	SD	n	Mean	SD
Total Battery	22	4.06	1.06	24	4.00	1.15
Word Meaning	22	4.00	1.12	24	3.91	1.00
Paragraph Meaning	22	3.93	1.12	24	3.92	1.19
Spelling	22	4.26	.91	24	4.34	1.33
Language	22	3.64	.94	24	3.65	1.19
Arithmetic Application	22	4.31	1.13	24	4.06	1.54
Social Studies	22	4.26	1.15	24	4.15	.63

*One student was not present for the achievement test when administered.

It should be noted that the Stanford Achievement Tests were administered in the fourth grade during the month of February for both groups of students. The national norm at the time would have been 4.6.

The mean and standard deviation of students' performance scores on the Kuhlmann-Finch Intelligence Tests are shown in Table III.

TABLE III
MEANS AND STANDARD DEVIATIONS OF GRADE TWO STUDENTS'
SCORES ON THE KUHLMANN-FINCH INTELLIGENCE TESTS

Items	<u>Head Start Participants</u>			<u>Head Start Eligibles</u>		
	n	Mean	SD	n	Mean	SD
Total Battery	23	98.30	13.13	24	100.08	11.42
Boys	12	99.25	10.12	15	103.67	11.14
Girls	11	97.27	15.70	9	94.11	9.16

Group characteristics for Head Start Participant students and Head Start Eligible students on the Piers-Harris Children's Self Concept Scale are reported in Table IV.

TABLE IV
 MEANS AND STANDARD DEVIATIONS OF GRADE FOUR STUDENTS'
 SCORES ON THE PIERS-HARRIS CHILDREN'S SELF
 CONCEPT SCALE

Areas	<u>Head Start Participants</u>			<u>Head Start Eligibles</u>		
	n	Mean	SD	n	Mean	SD
Total Battery	23	53.04	10.99	24	54.38	12.16
Factor I Behavior	23	11.96	3.97	24	12.42	3.34
Factor II Intellectual and School Status	23	12.09	3.59	24	12.33	3.76
Factor III Physical Appearance and Attributes	23	6.70	2.80	24	7.54	3.37
Factor IV Anxiety	23	7.48	2.60	24	7.75	2.30
Factor V Popularity	23	7.74	2.07	24	7.71	1.76
Factor VI Happiness and Satisfaction	23	7.09	1.72	24	7.08	2.00

Other sections of this chapter treat academic achievement, rate of retention, intelligence, self concept, and attendance as they relate to the hypotheses formulated for this study. The findings are presented in the form of tables. The .05 level of confidence was established as the minimum for statistical significance. A summary of the findings is placed at the end of this chapter.

Academic Achievement

The first hypothesis formulated for the present study stated:

The academic achievement of fourth grade pupils who attended the Head Start summer program will be significantly higher than a comparable group of fourth grade pupils who did not participate in the program.

The administration of the Stanford Achievement Tests to all pupils in the sixth month of the fourth grade provided ten scores for each student. These scores were a measure of the student's academic achievement in the areas of word meaning, paragraph meaning, spelling, word study skills, language, arithmetic computation, arithmetic concepts, arithmetic application, social studies, and science. For the present study, the following academic achievement areas of the Stanford Achievement Tests were selected for statistical analysis: word meaning, paragraph meaning, spelling, language, arithmetic application, and social studies. These variables are considered by this writer as the most important academic achievement areas of the Stanford Achievement Tests.

Word Meaning

The word meaning test consists of thirty-eight multiple choice items. Word meaning is an important aspect of human achievement. It

spans the verbal life of a child and reflects not only his school achievement, but also his home background. Weakness indicates the need for broadened experiences and often for increased language expression.

A t -value of .2759 was computed between the Head Start Participant and Head Start Eligible groups. In view of the critical t -value of 1.684, it was concluded that the two major groups did not reveal significant difference at the .05 level. Summary data for this test are shown in Table V.

TABLE V

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE WORD MEANING SECTION OF THE STANFORD ACHIEVEMENT TESTS

Groups	t^*	p
Head Start Participants	.2759	>.10
Head Start Eligibles		

*Critical t = 1.684

Paragraph Meaning

The paragraph meaning test consists of a series of paragraphs, graduated in difficulty. One or more words have been omitted from each paragraph. The pupil's task is to demonstrate his comprehension of the

paragraph by selecting from four choices that are afforded him the proper word for each omission. Paragraph meaning is a vital part of reading and school achievement.

Summary data for this test are shown in Table VI. A t value of .195 was computed between the Head Start Participant and Head Start Eligible group. With a critical t value of 1.684, it was concluded that the two major groups did not reveal significant difference at the .05 level.

TABLE VI

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PARAGRAPH MEANING SECTION OF THE STANFORD ACHIEVEMENT TESTS

Groups	t *	p
Head Start Participants	.195	> .10
Head Start Eligibles		

* Critical t = 1.684

Spelling

The spelling test consists of fifty multiple-choice items in which the pupil chooses from four words the one which is spelled incorrectly. Because each item requires four spelling judgments, a difficult item

can be secured by selecting words that are commonly used and likely to be in spelling textbooks.

A t value of .2324 was computed between the Head Start Participant and Head Start Eligible groups. In view of the critical t value of 1.714, it was concluded that the two major groups did not reveal significant difference at the .05 level. Summary data for this test are shown in Table VII.

TABLE VII

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE SPELLING SECTION OF THE STANFORD ACHIEVEMENT TESTS

Groups	t^*	p
Head Start Participants	.2324	> .10
Head Start Eligibles		

* Critical t = 1.714

Language

The language test consists of exercises in usage, punctuation, capitalization, dictionary skills, and sentence sense. The exercises in capitalization, punctuation, and sentence sense are presented in connected discourse. This adds interest and provides a more natural

testing situation than is achieved with isolated sentences. The test scores reflect a combination of home background, curriculum content, and the intensity and persistency of instruction.

The computed t value between the Head Start Participants and Head Start Eligible groups was .0387. On the basis of the critical t value of 1.684, it was concluded that the two major groups did not reveal significant difference at the .05 level. Summary data for this test are shown in Table VIII.

TABLE VIII

A. SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE LANGUAGE SECTION OF THE STANFORD ACHIEVEMENT TESTS

Groups	t^*	p
Head Start Participants	.0387	> .10
Head Start Eligibles		

* Critical $t = 1.684$

Arithmetic Application

The arithmetic application test consists of thirty-three multiple-choice items which measure reasoning with problems taken from life experiences. The general reading vocabulary has been kept much below

the problem-solving level being measured. Computation difficulty has been controlled so that it is only a minor factor.

A t value of .6027 was computed between the Head Start Participant and Head Start Eligible groups. In view of the critical t value of 1.684, it was concluded that the two major groups did not reveal significant difference at the .05 level. Table IX contains a summary analysis for the arithmetic application data.

TABLE IX

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START
PARTICIPANTS AND HEAD START ELIGIBLES ON THE
ARITHMETIC APPLICATION SECTION OF THE
STANFORD ACHIEVEMENT TESTS

Groups	t^*	p
Head Start Participants	.6027	>.10
Head Start Eligibles		

*Critical $t = 1.684$

Social Studies

The social studies test is divided into two parts and is based on the analysis of many recently published textbooks and courses of study widely used in the social studies area. The test covers areas that may loosely be defined as history, geography, and civics.

A t value of .4106 was computed between the Head Start Participant and Head Start Eligible groups. In view of the critical t value of 1.714, it was concluded that the two major groups did not reveal significant difference at the .05 level. Summary data for this test are shown in Table X.

TABLE X

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE SOCIAL STUDIES SECTION OF THE STANFORD ACHIEVEMENT TESTS

Groups	t^*	p
Head Start Participants	.4106	> .10
Head Start Eligibles		

*Critical $t = 1.714$

Retention

The second hypothesis formulated for the present study was:

The number of pupils retained in the lower primary grade level is significantly lower in the group of children who attended the Head Start summer program when compared to a comparable group who did not participate in the summer Head Start.

Promotion data were obtained from each student's cumulative school record. The elementary school attended by both major groups was

classified as a non-graded primary school. In this school, no student repeats a grade; however, retention was recorded when a student requires more than three years of progress through the first six levels of the primary grades.

The Ferguson (1966, p. 177) z -score value for this difference was found to be .8926. In order to be significant at the .05 level, this value must be 1.65 or greater. In view of these calculated and critical z values, it was concluded that the proportions of the two major groups revealed no significant difference. Data related to this test are summarized in Table XI.

TABLE XI

A SUMMARY OF z -SCORE ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON RATE OF RETENTION

Head Start Participants (n=22)	Head Start Eligibles (n=24)
1 Student No. 6	1 Student No. 1
2 Student No. 8	2 Student No. 3
3 Student No. 12	3 Student No. 5
4 Student No. 22	4 Student No. 10
	5 Student No. 12
	6 Student No. 18
	7 Student No. 23
Total 4	7
Proportion .181	.291

$$z = \frac{P_1 - P_2}{\sqrt{PQ \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{.1098}{\sqrt{(.249)(.528)(.131)}} = \frac{.1098}{.363} = .8926$$

Where: P_1 and P_2 are proportions of those retained over the total number.

Q is $1 - P$.

N_1 and N_2 are totals in the two groups.

Intelligence

The third hypothesis formulated for the present study stated:

The intelligence scores of pupils who attended the summer Head Start program are significantly higher than the comparable group of pupils who did not participate in the summer Head Start program.

The Kuhlmann-Finch Intelligence Tests incorporate basic principles which indicate that an intelligence test should measure the general mental development of an individual. Prior to maturity an individual normally progresses in general mental development each succeeding year. By studying representative samples of children and youth in the way they react to various mental tasks, one can discover those tasks in which they become more proficient each year, as they progress toward mental maturity. Placing these tasks on a time scale yields an instrument for measuring general mental development.

On the basis of the \underline{t} value of .4860 between the Head Start Participant and Head Start Eligible groups, and in view of the critical \underline{t} value of 1.684, it was concluded that the two major groups did not reveal significant difference at the .05 level. Summary data for this test are shown in Table XII.

TABLE XII

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE INTELLIGENCE SECTION OF THE KUHLMANN-FINCH INTELLIGENCE TESTS

Groups	t^*	p
Head Start Participants	.4860	>.10
Head Start Eligibles		

*Critical $t = 1.684$

Self Concept

The fourth hypothesis formulated for the present study stated:

The self concept of pupils who attended the Head Start summer program will be significantly greater than a comparable group of pupils who did not attend summer Head Start.

On the grounds that a positive self concept is essential to effective learning and that one of the goals of Head Start is to instill in the student a positive self concept, the Piers-Harris Children's Self Concept Scale was administered as a way of measuring and assessing the degree of positive self concept for the students in the fourth and fifth grades.

In view of the obtained and critical t value, it was concluded that the two major groups were not significantly different. Data related to this test are shown in Table XIII.

TABLE XIII

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE

Groups	t^*	p
Head Start Participants	.3851	> .10
Head Start Eligibles		

*Critical $t = 1.684$

The structure of the Piers-Harris Children's Self Concept Scale (CSCS) allows the investigator to analyze six factors of the content of items. These factors are behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction.

In view of the critical and obtained t values, it was concluded that the two major groups were not significantly different in the Factor I (Behavior). Summary data for this test are summarized in Table XIV.

The value of the critical and obtained t indicated that the two major groups were not significantly different in the Factor II (Intellectual and School Status). Data related to this test are shown in Table XV.

TABLE XIV

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR I BEHAVIOR

Groups	t^*	p
Head Start Participants		
Head Start Eligibles	.4215	> .10

*Critical $t = 1.684$

TABLE XV

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR II INTELLECTUAL AND SCHOOL STATUS

Groups	t^*	p
Head Start Participants		
Head Start Eligibles	.2249	> .10

*Critical $t = 1.684$

In view of the critical and obtained t values, it was concluded that the two major groups were not significantly different in the Factor III (Physical Appearance and Attributes). Summary data for this test are summarized in Table XVI.

TABLE XVI

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR III PHYSICAL APPEARANCE AND ATTRIBUTES

Groups	t^*	p
Head Start Participants	.9147	> .10
Head Start Eligibles		

*Critical $t = 1.684$

In view of the critical and obtained t values, it was concluded that the two major groups were not significantly different in the Factor IV (Anxiety). Summary data for this test are summarized in Table XVII.

In view of the critical and obtained t values, it was concluded that the two major groups were not significantly different in the Factor V (Popularity). Summary data for this test are summarized in Table XVIII.

TABLE XVII

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR IV ANXIETY

Groups	t^*	p
Head Start Participants		
Head Start Eligibles	.3722	> .10

*Critical $t = 1.684$

TABLE XVIII

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR V POPULARITY

Groups	t^*	p
Head Start Participants		
Head Start Eligibles	.0539	> .10

*Critical $t = 1.684$

In view of the critical and obtained t values, it was concluded that the two groups were not significantly different in the Factor VI (Happiness and Satisfaction). Summary data for this test are revealed in Table XIX.

TABLE XIX

A SUMMARY OF t -TEST ANALYSIS BETWEEN HEAD START PARTICIPANTS AND HEAD START ELIGIBLES ON THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE - FACTOR VI HAPPINESS AND SATISFACTION

Groups	t^*	p
Head Start Participants	.0064	> .10
Head Start Eligibles		

* Critical $t = 1.684$

Attendance

The fifth hypothesis formulated for the present study states:

The attendance record of pupils who attend Head Start will be significantly higher in their attendance as compared to a comparable group who did not attend Head Start.

Attendance data were obtained from each student's cumulative school record. A comparison of Head Start Participants and Head Start Eligibles was made in regard to their attendance during the fourth grade. Table XX reveals the summary of these data.

TABLE XX

A SUMMARY OF HEAD START PARTICIPANTS AND HEAD
START ELIGIBLES ON FOURTH GRADE ATTENDANCE

Groups	Total Days on Roll	Total Days Present	Percentage Present
Head Start Participants	4140.0	3919.0	94.66
Head Start Eligibles	4320.0	4108.5	94.58

Summary

Chapter IV has presented the procedural treatment and the statistical analysis of data collected through the use of the Kuhlmann-Finch Intelligence Tests, the Stanford Achievement Tests, the Piers-Harris Children's Self Concept Scale, and cumulative record folders for this experimental investigation. The data were presented in tabular format with appropriate discussion concerning the statistical test of significance and the results obtained. Statistical confidence was specified at the .05 confidence level for the standardized tests and the hypotheses were put to the test. The tests of the five hypotheses did not reveal significant differences.

Chapter V will present a summary, findings, conclusions, further considerations, and recommendations for further research in areas related to this study.

CHAPTER V

INTRODUCTORY SUMMARY, FINDINGS, CONCLUSIONS, FURTHER CONSIDERATIONS, AND RECOMMENDATIONS

Introductory Summary

The purpose of this study was to determine the difference of specified variables between participants and non-participants of a summer Head Start program. The pupils studied in this research were forty-seven disadvantaged children who were eligible to attend the Head Start summer program conducted at Dodge City, Kansas, by the Unified School District No. 443 and the Office of Economic Opportunity. Of the sample population, twenty-three pupils attended the 1966 summer program, and twenty-four pupils were eligible to attend the 1965 Head Start summer program but did not because none was held in the community.

All the pupils used in the study attended the same elementary school and have attended that same school since kindergarten. The school is located in an area of high concentration of low-income families of the local school district.

The data collected for this study were analyzed through the use of appropriate statistical techniques with statistical significance established at the .05 level of confidence on the standardized tests used.

Findings

The findings of this investigation considered to be most important and of significant value were the following:

1) Hypothesis One stated that the academic achievement of fourth grade pupils who attended the Head Start summer program will be significantly higher than a comparable group of fourth grade pupils who did not participate in the program. The t-test was used to test the hypothesis; the one-tailed test at the .05 level of confidence was applied. The hypothesis was not supported.

2) Hypothesis Two stated that the number of pupils retained in the lower primary grade level is significantly lower in the group of children who attended the Head Start summer program when compared to a comparable group who did not participate in the summer Head Start program. The z-score value for this difference was to be .8926. In order to be significant at the .05 level, this value must be 1.65 or greater. Therefore, the hypothesis was not supported.

3) Hypothesis Three stated that the intelligence scores of pupils who attend the summer Head Start program are significantly higher than a comparable group of pupils who did not participate in the summer Head Start program. The t-test was used to test the hypothesis; the one-tailed test at the .05 level of confidence was applied. The hypothesis was not supported.

4) Hypothesis Four stated that the self concept of pupils who attended the Head Start summer program will be significantly greater than a comparable group of pupils who did not attend summer Head Start. The t-test was used to test the hypothesis; the one-tailed test at the .05 level of confidence was applied. The hypothesis was not supported.

5) Hypothesis Five stated that the attendance record of pupils who attended summer Head Start will be significantly higher as compared to a comparable group of pupils who did not attend summer Head Start. Simple percentages were used to compare the two groups and to test the hypothesis. The hypothesis was not supported.

6) There was no statistically significant difference between the experimental group and the control group in relation to the five hypotheses that were established for testing in this study.

Conclusions

The following conclusions have been drawn from the findings of this study:

1) The Head Start summer program conducted by the Unified School District No. 443, Ford County and Dodge City, Kansas, has been ineffective in producing any persisting gains in cognitive or affective development that can be detected by the tests used in grades two, four, and five. The evidence obtained in this study indicates that there is not significant difference between Head Start Participants and a comparable group of Head Start Eligibles for this summer program.

2) Disadvantaged pupils, whether Head Start Participants or Head Start Eligibles, still appear to be in a disadvantageous position with respect to national norms for standardized tests of intelligence and academic achievement. Results are summarized in Table II, page 34.

3) The group of students who attended the 1966 summer Head Start program scored slightly higher in three academic areas of the Stanford Achievement Tests. The Head Start Participant group scored higher on word meaning, arithmetic application, and social studies. Both groups

scored the same on the paragraph meaning and spelling skills. The non-Head Start group scored slightly higher on the language skills.

4) There were fewer Head Start Participant students retained in the primary grades than non-Head Start students. This is an indication that participation in the summer Head Start program would improve a disadvantaged student's chances of making normal progress through the primary grades.

5) The findings from analysis of the data collected for this study should be interpreted to apply only to the local school district in which this study was made. Generalizing to other disadvantaged populations should be done only where there is a comparable population.

Further Considerations

The results of this study support the finding that Head Start Participants and Head Start Eligibles were not significantly different in academic achievement, rate of retention, intelligence scores, self concept, and attendance at the end of five years. As such, the findings cannot support the continuation of summer Head Start programs for the disadvantaged pupil as they presently exist.

Parents of Head Start enrollees have voiced a strong approval of the program and its influence on their children even though no significant difference was detected in the present study.

The value of this study will be determined, in part, by the extent in which it stimulates further research in this area. Additionally, its value lies in the validity of the small base of knowledge which it establishes.

Recommendations

1) Perhaps summer programs should be phased out as early as feasible and converted into full-year or extended-year programs.

2) Head Start programs should be continued, but every effort should be made to make them more effective. Some specific suggestions are:

- a. Offering intervention programs of longer duration, perhaps extending downward toward infancy and upward into the primary grades.
- b. Varying teaching strategies with the characteristics of the children.
- c. Concentrating on the remediation of specific deficiencies such as language deficiencies, deficiencies in spelling or arithmetic.
- d. Training of parents to become more effective teachers of the children.
- e. Teachers in Head Start programs need a broader background in psychological, sociological, and philosophical theory in working with disadvantaged children.

3) In view of the limited state of knowledge about what would constitute a more effective program, some of the Head Start programs should be set up as experimental programs to permit the implementation of new procedures and techniques and provide for an adequate assessment of results.

4) There should be coordination of Head Start with other early childhood education programs and with other compensatory education programs.

5) Head Start should constantly monitor the research and development activities of other educational agencies to expedite the application of knowledge relevant to particular needs.

Head Start has been concerned with all aspects of the child: medical, dental, nutritional, intellectual, and sociopersonal. It has pioneered in parent education and community involvement, stimulated research work in infant and child development, and fostered the further development of teacher competence. These achievements should not be taken lightly. Certainly Head Start is and has become far more than an attempt to develop the intellectual and self concept characteristics of children.

Recommendations for Further Research

1) The validity and the findings of this study should be substantiated through additional investigations utilizing what is known about the deficits that severely deprived and disadvantaged pupils bring to their educational experience limits, their possibilities for equal academic and social success in school.

2) The tendency for the disadvantaged pupil to be a less sophisticated test-taker than the middle class pupil points to a recommendation for tests which measure intelligence, academic achievement, and potential that are free from cultural bias. Results from such tests could provide teachers with a realistic awareness of each individual disadvantaged pupil's intellectual potential. This could eliminate a part of the tendency to categorize all disadvantaged children into one group.

3) The present study indicates that the precise type of experiences necessary to yield the best academic and self concept outcomes for the disadvantaged pupil have not yet been determined; it thus pointed to the need for more experimentation in classroom methods of teaching the disadvantaged pupil. It is recommended that such experimentation be performed in both the public school and in teacher training institutions.

In this study findings showing no significant difference between Head Start Participants and Head Start Eligibles in academic achievement, rate of retention, intelligence scores, self concepts, and attendance can be viewed as evidence that Head Start has not improved the performance of these pupils. As such, the findings support the further study of summer Head Start schools for the disadvantaged pupil.

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APPENDIX

CHILDREN'S SELF-CONCEPT SCALE

THE PIERS-HARRIS
CHILDREN'S SELF CONCEPT SCALE
(The Way I Feel About Myself)

by

Ellen V. Piers, Ph.D.

and

Dale B. Harris, Ph.D.

Published by

Counselor Recordings and Tests

BOX 6184 ACKLEN STATION

NASHVILLE, TENNESSEE 37212

THE WAY I FEEL ABOUT MYSELF

NAME
AGE GIRL OR BOY
GRADE SCHOOL
DATE

Here are a set of statements. Some of them are true of you and so you will circle the yes. Some are not true of you and so you will circle the no. Answer every question even if some are hard to decide, but do not circle both yes and no. Remember, circle the yes if the statement is generally like you, or circle the no if the statement is generally not like you. There are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark the way you really feel inside.

1. My classmates make fun of me yes no
2. I am a happy person yes no
3. It is hard for me to make friends yes no
4. I am often sad yes no
5. I am smart yes no
6. I am shy yes no
7. I get nervous when the teacher calls on me yes no
8. My looks bother me yes no
9. When I grow up, I will be an important person yes no
10. I get worried when we have tests in school yes no
11. I am unpopular yes no
12. I am well behaved in school yes no
13. It is usually my fault when something goes wrong yes no
14. I cause trouble to my family yes no
15. I am strong yes no
16. I have good ideas yes no
17. I am an important member of my family yes no
18. I usually want my own way yes no
19. I am good at making things with my hands yes no
20. I give up easily yes no
21. I am good in my school work yes no
22. I do many bad things yes no

23. I can draw well yes no
24. I am good in music yes no
25. I behave badly at home yes no
26. I am slow in finishing my school work yes no
27. I am an important member of my class yes no
28. I am nervous yes no
29. I have pretty eyes yes no
30. I can give a good report in front of the class yes no
31. In school I am a dreamer yes no
32. I pick on my brother(s) and sister(s) yes no
33. My friends like my ideas yes no
34. I often get into trouble yes no
35. I am obedient at home yes no
36. I am lucky yes no
37. I worry a lot yes no
38. My parents expect too much of me yes no
39. I like being the way I am yes no
40. I feel left out of things yes no
41. I have nice hair yes no
42. I often volunteer in school yes no
43. I wish I were different yes no
44. I sleep well at night yes no
45. I hate school yes no
46. I am among the last to be chosen for games yes no
47. I am sick a lot yes no
48. I am often mean to other people yes no
49. My classmates in school think I have good ideas yes no

50. I am unhappy yes no
51. I have many friends yes no
52. I am cheerful yes no
53. I am dumb about most things yes no
54. I am good looking yes no
55. I have lots of pep yes no
56. I get into a lot of fights yes no
57. I am popular with boys yes no
58. People pick on me yes no
59. My family is disappointed in me yes no
60. I have a pleasant face yes no
61. When I try to make something, everything seems to go wrong. yes no
62. I am picked on at home yes no
63. I am a leader in games and sports yes no
64. I am clumsy yes no
65. In games and sports, I watch instead of play yes no
66. I forget what I learn yes no
67. I am easy to get along with yes no
68. I lose my temper easily yes no
69. I am popular with girls yes no
70. I am a good reader yes no
71. I would rather work alone than with a group yes no
72. I like my brother (sister) yes no
73. I have a good figure yes no
74. I am often afraid yes no
75. I am always dropping or breaking things yes no
76. I can be trusted yes no

- 77. I am different from other people yes no
- 78. I think bad thoughts yes no
- 79. I cry easily yes no
- 80. I am a good person yes no

Score: _____

VITA

Harold Roy Hosey

Candidate for the Degree of

Doctor of Education

Thesis: COGNITIVE AND AFFECTIVE GROWTH OF ELEMENTARY SCHOOL STUDENTS
WHO PARTICIPATED IN SUMMER HEAD START

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