SOME EFFECTS OF LEARNING THE CAUSES OF BEHAVIOR
OF CERTAIN PERSONAL AND SOCIAL ATTITUDES
OF PRE-ADOLESCENT CHILDREN

APPROVED

Graduate Committee:

Mark E. Donney
Major Professor

James W. Dougherty
Minor Professor

Wit Dini
Committee Member

Wit Dini
Dean of the School of Education

Robert B. Toulous
Dean of the Graduate School
SOME EFFECTS OF LEARNING THE CAUSES OF BEHAVIOR
UPON CERTAIN PERSONAL AND SOCIAL ATTITUDES
OF PRE-ADOLESCENT CHILDREN

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

Joseph Wright Griggs, M. Ed.
Denton, Texas
May, 1964
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CHAPTER I

INTRODUCTION

Statement of the Problem

Ralph H. Ojemann, Director of the Preventive Psychiatry Research Program at the State University of Iowa, states what is in essence the problem of this study.

After a child learns about the factors that underlie behavior, theoretically he could apply this learning not only to the behavior of others but also to his own actions and to the guiding of his own development. For example, if he learned that over-aggressive behavior is often motivated by a feeling of inadequacy, and if he learned something about how feelings of inadequacy develop and how they can be overcome, he would have something to help him interpret his own over-aggressive behavior or his own feelings of inadequacy. The question then becomes, if we change children so that they appreciate the differences between the surface and dynamic approaches to behavior, will that affect their relationships with others and their relationship to themselves?\(^1\)

This present study will seek to supply at least a partial answer to this question which closes Ojemann's statement.

The problem of this present study, then, is to determine what changes will take place in certain personal and

\(^1\)Ralph H. Ojemann, "Basic Approaches to Mental Health: The Human Relations Program at the State University of Iowa," Personnel and Guidance Journal, XXXVII (November, 1958), 196.
social attitudes of pre-adolescent children at the fourth- and fifth-grade levels as a result of their "having learned about the factors that underlie behavior" through a mental hygiene program utilizing "causally" oriented materials at their own level of interest and understanding. The attitude changes to be measured in this study include the following: self-concept scores, discrepancy scores between perceived-self and ideal-self, friendship choices among class members as measured by sociometric scales, scores on a security scale, and scores on a mental hygiene scale.

Assumption of the Study

It is the assumption of this study that pre-adolescent children can gain insight into the causes of behavior as a result of their having been exposed to a program designed to teach "causal" relationships, and that they can and will apply this knowledge in terms of a better understanding and acceptance both of themselves and of other persons. Ojemann, whose students and staff at the Preventive Psychiatry Research Program have done considerable research utilizing "causally" oriented programs in public schools, summarized the findings of a number of these investigations with the following statement which tends to substantiate this assumption.
In summary, these investigations showed that children in the elementary and secondary grades can learn the beginnings of the dynamics of behavior, that they can learn to apply this knowledge in their relations with others, and that the process of learning about human behavior can be greatly extended on the school level.²

Definition of Terms Used in the Study

The term "causal" used throughout this study in conjunction with other words ("causal" thinking, "causal" relationships, "causal" understandings, "causally" oriented materials, etc.) is defined by Ojemann as a recognition of the fact that "human behavior is produced by many factors and that one can distinguish between an approach to a given behavior incident which recognizes and takes into account the variety of factors that may have produced it as compared with an approach that considers mainly the overt form of the behavior."³ In an article by Eugene Levitt and Ojemann, "causal" thinking is defined as being "roughly analogous to what the therapist labels 'insight'."⁴

²Ibid., p. 206.


Bringing an individual to the point of clear, insightful thinking concerning his own personality dynamics and his inter-relationships with others is one of the classical mechanisms of psychotherapy. The argument for insight as a therapeutic device is convincing: A person cannot be expected to give up his present (neurotic) pattern of existence unless it becomes clear to him that the maintenance of this pattern is not in his own best interests. He cannot arrive at this realization unless he reorients his perception of himself and others. Such reorientation is called insight.\textsuperscript{5}

Helping children, even at the early elementary grade levels, develop "causal" understandings to be utilized in "causal" thinking and "causal" relationships toward themselves and others is the primary purpose of the "causally" oriented materials which have been devised by Ojemann and his staff at the Preventive Psychiatry Research Program. It is hoped that as "causally" oriented materials are taught to children, the following six "primary behavioral dispositions" as stated by Levitt and Ojemann will manifest themselves in terms of children's attitudes and responses toward both themselves and others.

1. Knowledge of the existence of causes for human behavior, both of one's own behavior and that of others. . .
2. Knowledge that the underlying factors of behavior are often complex and interacting. . .
3. The ability to assume alternate multiple explanations of behavior; the awareness that different

\textsuperscript{5}ibid.
motivations may be behind the same behavior in different persons, and that the same underlying causes may produce different behavior in different persons.

4. A disposition leading to consistent attempts to "see things from the viewpoint of others," that is, to identify with those with whom one interacts.

5. The realization that one's own behavior will have effects upon the behavior of others.

6. Suspending of judgment of another's behavior until sufficient, logical information for such judgment or evaluation is available, i.e., until one particular hypothesis concerning the causes of that behavior or the effects of behavior has achieved a maximum probability of being a true explanation. A "scientific" readiness to modify even this hypothesis in the face of inconsistent events is implied here.

Hypotheses of the Study

It is the hypotheses of this study that as a result of the "insight" children will gain into why they themselves and others feel and behave as they do from a course taught in "causal" understandings, the experimental groups which will receive this program will show greater positive changes in certain personal and social attitudes than will the control groups which will not be exposed to this special program. The four hypotheses which are stated below represent four different types of attitude change which have been measured by four different types of instruments.

Ibid., pp. 396-397.
The first hypothesis is that children in the experimental groups will manifest greater positive changes on self-concept scores than will children in the control groups. It is hypothesized that these changes will be shown in two ways: (1) by greater improvement of the experimental groups in perceived-self scores, and (2) by the children in the experimental groups exhibiting a greater congruency between perceived-self and ideal-self scores on post-tests as compared to pre-tests than will the control groups. The rationale for this part of the hypothesis is based on a theory by Carl Rogers that an awareness of a discrepancy between the self-concept and the ideal-self indicates unsatisfactory self-organization. Support for Rogers' theory comes from a dissertation study by Henry Raymaker who found that the greater the discrepancy between perceived-self and ideal-self in children, the greater the amount of maladjustment which was manifested in children.

The second hypothesis is that children who understand "causal" relationships will manifest better acceptance of others as measured by sociometric scales than will children

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who have not been exposed to "causal" understandings. It is hypothesized that children in the experimental groups will show greater increases in number of choices given, number of choices received, number of mutual choices, and in over-all sociometric scores than will children in control groups between pre-testing and post-testing.

The third hypothesis is that children who have "causal" understandings will manifest a greater gain between first and second testings in terms of a "security" score as measured by a security scale than will children in the control group.

The fourth hypothesis is that children who have "causal" understanding will manifest a greater gain between first and second testings on a score made on a mental health analysis scale than will children in the control group.

Limitations of the Study

The Committee on Preventive Psychiatry which evaluated four mental hygiene programs which have been devised for use in the schools stated that "the material given as a separate course in mental hygiene can lead to a matter being entirely isolated and, for the most part, leaves the child untouched as far as the rest of his life is concerned." 9

Therefore, the fact that the "causally" oriented materials which were utilized in this study were taught in separate discussion classes instead of being integrated into the total learning program is recognized as a limitation of this study. However, since it was not feasible for purposes of this study to train teachers in the use of "causally" oriented materials nor to modify the structure of classroom programs, convenience and economy dictated the use of separate classes for conveying "causal" learnings even though it is recognized this is not the most effective method of teaching mental hygiene materials.

Another major limitation of this study was the failure to control one of the most important variables in attempting to influence attitude changes among children in the classroom—the teacher. Although it is recognized that the teacher's personality, her interest or lack of interest, her rapport or lack of rapport with her students, etc., is an extremely important variable—it would have been a very difficult one to attempt to control under the circumstances in which the present study was conducted. In this study a school system's as well as a teacher's willingness to cooperate in the study was the criterion for choosing—selective choosing and careful matching being virtually
impossible. It is to be hoped that the number of teachers involved in the study—nine experimental and nine control—will tend to balance out the effects of this variable.

Except for these limitations, other important variables which most apparently will have an important effect on the outcome of the study appear to be controlled. Of course, the usual limitations apply in terms of generalizing the findings of the study; e.g., to children of similar grades, race, socio-economic background, mental age, and environment as the children who were actually involved in the study.

Significance of the Study

Since the first subsection of the following chapter gives statements by well-known educators, psychologists, and other authorities who are interested in preventive psychiatry pointing out the importance of mental hygiene courses, only one statement will be quoted here to emphasize the significance of the present study. In his book *In Search of Self*, Arthur T. Jersild makes a strong case for a program of study which will seek to determine in what ways a program of preventive psychiatry can be best integrated into the normal process of education.
There is a need of staggering magnitude for doing something in our educational program to help children and youth acquire realistic attitudes of self-acceptance. A large proportion of the young people now entering adulthood are burdened with anxiety, hostility, defensive attitudes towards themselves and others, feelings of guilt, inferiority, or other forms of self-disparagement and self-distrust. They struggle not only with the real dangers and thwartings of our troubled world but with unresolved childhood problems. They are beset with conflicts arising from unrealistic concepts and unhealthy attitudes which they carry from childhood into adult life.

We do not have to resign ourselves without a struggle to the conclusion that so much distress is inevitable. But to deal with it requires something bolder and more sweeping than the mental health measures we now have. Psychiatrists, psychologists, and other professional workers who try to help troubled people in one way or another reach only a small number. This small number represents, to a large extent, persons who have been seriously troubled for a relatively long period. We need to undertake a program of study to find to what extent and in what ways we might in the normal process of education achieve for all growing persons such benefits as those which the psychotherapist tries to bring about for his patients in the process of re-education.¹⁰

This present study will seek, within its limitations, to help provide some of these answers.

A REVIEW OF RELATED LITERATURE

This chapter on related literature is concerned with three aspects of mental hygiene courses in the elementary school: (1) statements made by recognized authorities in education, psychology, and related fields concerning the importance of mental hygiene programs; (2) statements concerning the types of programs which are recommended for classroom use by educators, psychologists, etc.; and (3) the findings from research studies which have already been conducted from mental hygiene programs, together with certain tentative hypotheses drawn from a summary of these studies.

Importance of Mental Hygiene Courses

According to Arthur T. Jersild every child is potentially a child psychologist. Jersild means by this that from an early age the child acquires ideas and attitudes about himself and others, true or false, healthy or morbid, which are woven into the pattern of his life. Jersild states:

Their development is left largely to chance. This is not as it should be in my judgment. I
propose that the study of child psychology, designed to promote understanding and acceptance of self and understanding of others, should be a planned feature of the education children receive from nursery school onward.¹

Louis Kaplan in his book Mental Health and Human Relations in Education strongly concurs with Jersild in advocating an extensive mental health program in the schools.

The basic contention of this book is that schools have a function beyond the inculcation of knowledge and skills. They must also educate for mental health so that youngsters will learn to work together in wholesome and satisfying ways, and develop the capacity to live with themselves and with other people as mature and responsible citizens. . . . Today there is an abundance of information regarding these important aspects of living, but relatively limited application of this material to the school experiences of children.²

Lawrence K. Frank, an early advocate of the mental hygiene movement, goes so far as to say, "we could wisely sacrifice much of our academic achievement for better personality integration and social adjustment."³

Concerning the importance of school influence in terms of mental hygiene development in children, Trager and Yarrow state in their book They Learn What They Live:


³Lawrence K. Frank, "The Reorganization of Education to the Promotion of Mental Health," Mental Hygiene, XXIII (October, 1939), 533.
It can be said with considerable certainty that the mental hygiene understandings derived by children in school have a definite influence on their basic attitudes and behavior—an influence which may be even stronger than other personality-molding forces in the environment.\textsuperscript{4}

Finally, in their book \textit{Mental Hygiene in Teaching}, Redl and Wattenberg state that "knowledge and understanding of oneself and of others has long been recognized as an important goal of education."\textsuperscript{5} In discussing ways in which children develop insight into human behavior, Redl and Wattenberg state as follows:

This insight can take two directions. On the one hand, we can concentrate on understanding the cause-and-effect relationships in other pupil's behavior. On the other hand, we can attain greater self-knowledge. These two aspects are not in opposition. Often, progress toward one goal makes it easier to reach the other. There is a vital interplay between them; it is easier to understand yourself if you know the roots of people's reactions in general. Knowledge of yourself can clarify perceptions of others.\textsuperscript{6}

Types of Programs Recommended

Jersild believes that to carry out a program to help young children gain self-understanding a vast amount of new research is needed:

\textsuperscript{4}Helen G. Trager and Marion R. Yarrow, \textit{They Learn What They Live} (New York, 1952), p. 351.


\textsuperscript{6}Ibid., p. 435.
... We would need to find out what is the nature of the growing child's perception of himself and of others. What concepts pertaining to understanding of self or others is he able to use meaningfully and to apply? By what means is it possible to communicate with them? What are early symptoms and signs of false or morbid self-evaluation? These are only a few of the questions.7

Some suggestions as to the types of programs which will meet these needs come from well-known educators and psychologists. Kaplan, for instance, believes that books and stories can make a vital contribution to the mental health of children.

By selecting reading materials which deal with personal problems common to a given age group, the teacher can encourage children to bring their own problems out into the open. Stories lend authority and objectivity to the feelings and behavior involved, and provide an impersonal basis around which to begin a discussion.8

An analysis of third-grade readers made by Child, Potter and Levine concerning their influence upon personality development of children gives strong indications that teachers will have to turn to sources other than the basic reading texts generally provided for children if they are to provide for mental-health development in children. In evaluating their findings, Child and his colleagues point out the following weaknesses in the text they analyzed:

8Kaplan, op. cit., p. 355.
A major defect of the readers is what might be called their unrealistic optimism. Behavior directed at affiliation and nurturance, for example, is almost always rewarded in the readers. There are very few instances of failure. . . . While the content of these readers might do a great deal towards strengthening a desire for achievement in competitive success, there is very little about those children—perhaps the majority who frequently experience failure in competition, and few suggestions about how such children can find some satisfactory way of adjusting to their failure. . . . A similar failure to make positive suggestions is found in the treatment of aggression and acquisition. Here are two needs, certainly universally present in children, which lead to serious problems of adjustment because of their frequent interference with desires of other and more powerful persons. 9

To compensate for the gaps in mental hygiene teachings found in regular classroom readers, several programs of reading materials have been devised by educators and psychologists to be used as supplementary reading materials in regular classroom situations. One of the earliest of these programs was begun in 1940 by H. Edmund Bullis and Emily E. O'Malley. Their work was culminated in 1947 with the publication of their first of three volumes, entitled Human Relations in the Classroom, Course I. 10 The other


10 H. Edmund Bullis and Emily E. O'Malley, Human Relations in the Classroom, Course I (Wilmington, Delaware, 1948), p. 2.
two volumes, Courses II and III, were published in 1948 and 1949, respectively. In describing the use teachers were to make of these materials in a human relations class, Howard Whitman states as follows:

It begins with a story the teacher reads from a prepared lesson plan. It is selected to illustrate the day's theme--Emotional Problems at Home, That Inferiority Feeling, How Emotions Affect us Physically, etc. After the story the children analyze the emotional forces involved, isolate and discuss the conflicts and problems of the people, and evaluate their personalities. Then, as the cream of the lesson, they talk about themselves. Have they ever felt these emotions? What have they done about it? Have they ever faced a similar problem? How did they solve it? In free and open discussion the children have no hesitation about admitting the emotions they feel, however unpleasant. . . . Each child gets a healthy sense of relief at discovering that he is not the only one who ever told a lie, or was afraid, or felt greedy.11

More recently, the Preventive Psychiatry Research Program directed by Ralph H. Ojemann, a professor at the State University of Iowa, has developed an impressive array of materials to be used by the regular classroom teacher with children at all age levels in teaching causal relationships. In 1958, the Preventive Psychiatry Research Program printed a 221-page handbook for kindergarten and first grade teachers entitled A Teaching Program in Human

11Ibid., p. 2.
Behavior and Mental Health, Book I. A similar volume has been prepared for second- and third-grade teachers.

In the Introduction of Book I the following observations are made:

Each story deals with a particular behavior pattern. After the situation has been set forth someone begins to make a surface approach to it. In various ways some of the factors which lead to the development of the behavior are brought out. Then the character rethinks his proposed reaction and makes a causal approach.

The story is introduced and read or told to the pupils. Some sort of follow-up is made to guide the pupils into thinking of the reasons for the behavior which was described in the story. Both the surface and causal approach may be contrasted. The children have a chance to see if knowing how the behavior developed made any difference. In this way an attempt is made to present a real situation in which someone starts to make a surface approach—a phenomenon which children in our culture experience frequently. Soon there is introduced a new way of thinking—a way that considers the meaning or causes of behavior instead of merely its overt form.

For children in the intermediate elementary grades the Preventive Psychiatry Research Program published six booklets in 1959 entitled Why People Act as They Do.

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13 Ibid., pp. 9-10.

14 Ralph H. Ojemann, chairman, Preventive Psychiatry Research Project, Why People Act as They Do, six volumes (Iowa City, 1959).
These booklets were designed to be used by the children themselves in group discussions, skits, unfinished stories which the children are to complete, problem situations and through other methods which are couched in the language of pre-adolescent children. This type of presentation, together with many illustrations utilizing stick cartoon figures, leads children into an exploration of motivational factors of behavior including common needs, certain defense mechanisms and other psychological understandings.

For junior high students the Preventive Psychiatry Research Program has developed a book of materials to coincide with the social studies program in stressing causal relationships, and also a manual for teachers entitled The Student Council with materials designed to help the teacher guide the whole class in a student council situation which will help them to analyze behavior problems from a causal point of view. In addition to all of the aforementioned programs, the Preventive Psychiatry Research Program has developed a booklet to be used by parents in the home in stressing causal relationships.

16Ralph H. Ojemann, The Student Council (Iowa City, 1949).
One of the most unique programs attempted in reaching children with mental hygiene principles at their own level of understanding is a special Blondie comic book with cartoons drawn by Chic Young under the auspices of the National Association for Mental Health, published in 1950. The book consists of four separate cartoon stories dealing with mental health principles entitled "Scapegoat," "Love Conquers All," "Let's Face It," and "On Your Own." A teaching guide accompanying the material suggests activities, supplementary materials, and problems for class discussion. The materials deal with such concepts as frustration, aggression, displacement, etc., on the level of children's comprehension.

A pilot study of the material in the Blondie cartoon book made by the State Planning Committee for School and Community Health Education in Ohio suggests that the device was judged by principals and teachers to have natural appeal to children and seemed to be effective in helping children verbalize and deal with their own problems in discussion periods following the reading of the stories.\(^{19}\)

\(^{18}\)Chic Young, *Blondie* (New York, 1950).

\(^{19}\)State Planning Committee for School and Community Health Education, *The Blondie Comic Book: A Teaching Aid in Mental Health* (Columbus, Ohio, 1953).
The materials were judged to be most suitable for grades six to nine.

George and Fannie R. Shaftel, in their pamphlet Role Playing the Problem Story, advocate role playing as the most natural way of involving the child in mental health relationships. In the plan they describe, the teacher reads aloud to her pupils a typical life situation of childhood. The story is cut short at a critical moment and the children are then encouraged to finish the story in spontaneous role-playing sessions as they think it would actually end. The hope and expectation is that such exploration of their feelings about recurring life situations would be valuable in helping them to gain insight concerning possible solutions of their own problems.²⁰

In summary, all of these programs appear to have in common the fact that they attempt to involve students personally in problem-solving situations which are closely related to the types of problems which the children actually face in real-life situations. To this extent, a statement by Redl and Wattenberg would appear to give a stamp of approval to the methods used in all of these programs. They state:

²⁰George Shaftel and Fannie R. Shaftel, Role Playing the Problem Story (New York, 1952).
Whatever the curricular arrangement, the most effective programs are those which lead to problem-solving through group discussion. The teacher works with the group to establish a tradition of free give-and-take of expression about personal difficulties and feelings. In some cases, printed materials or short talks by the teacher are used to give a focus for the discussion.21

Findings from Research Studies on Mental Health Programs

A number of research studies have been conducted in an attempt to determine the relative effectiveness of some of the proposed mental health programs mentioned in the preceding section as well as other types of programs tried in the schools. In this section an attempt will be made to briefly report the findings of these studies, and in the summary section of this chapter to draw some tentative conclusions concerning the relative effectiveness of these various programs.

Several studies have attempted to assay the effectiveness of the Bullis materials when used in the school. Perhaps the latest and one of the most thorough investigations was conducted by Jack R. Matlock.22 The Course I

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21Redl and Wattenberg, op. cit., p. 436.

book of lesson plans by Bullis and O'Malley was presented once weekly for a fifty-minute period during the course of one school year to the experimental groups. Ten experimental sixth-grade classes which received the course taught by the regular classroom teachers were paired in each of ten schools with control groups taught by teachers selected as having equal teaching ability. Instruments used to measure the results in the study included the California Test of Personality, The California Reading Test, and a self-concept test entitled Thinking About Yourself.

Matlock's most significant findings were in terms of reading achievement rather than in personality gains. The differences in terms of gain in reading grade-placement scores were compared between the experimental and control groups and in terms of Total Reading Score were found to be significant at the .0001 level of confidence. On the California Test of Personality, significant gains were posted by the experimental group in the subtests of "Feelings of Belonging" and "Family Relations." All of the other differences in the subtests, although not statistically significant, favored the experimental group with the exception of "Self-Reliance" and "Sense of Personal Worth," both of which favored the control group but not
significantly. Also, the experimental group showed a smaller discrepancy between the perceived-self and the ideal-self on the self-concept test, although the difference was not statistically significant.

In another study which utilized the Bullis material, Sheldon Rosenthal found greater changes on all subscores of the California Test of Personality for an experimental fifth-grade class of negro children engaged in various mental health activities over a five-week period than he found in a control group matched on the basis of socio-economic status, age, I.Q., and academic achievement. Also, the experimental group showed a general increase in sociometric choosing over the control group, and many children originally disliked improved their status at the second testing.

One of Rosenthal's findings in the experimental group, however, indicates caution must be exercised in the types of information given to children and the way in which this information is disseminated. Rosenthal found that many children in the experimental group who were initially poorly-adjusted declined further in adjustment as a result.

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of the program, whereas those children originally well-adjusted, and therefore better able to handle information about themselves, were the ones who improved. In discussing this finding by Rosenthal, Orville G. Brim, Jr., made the following comment:

To pour information into individuals indiscriminately may indeed result in emergence of trouble for those persons where they are not able to accept such information or where the information may be "accepted" in unexpected ways, feeding already established disturbances. Some of the programs directed to children suggest that the education of children precedes before resistances to insight, that is, defenses, are developed. We must recognize in disagreement with this that certainly children have defenses, however weak, and that these should be considered in such programs.24

Although commending the Bullis project on its simplicity, requiring little training for use by a regular classroom teacher, and on the basis of free atmosphere for discussion of emotional problems which this plan encourages, the Committee on Preventive Psychiatry also pointed out that this method "may unleash anxiety which cannot be handled by the child and may, therefore, cause actual harm." They further state:

The course structure is based on an oversimplified scheme of motivation of four human drives, and the assumption that these drives and their derivatives, when proper outlets are found, lead to happiness and mental health, and, when not found, lead to unhappiness. There is, therefore, a large didactic element in the course which attempts to convey the idea that control and conformity to the existing mores leads to happiness.

The moralistic attitude is quite obvious. This is generally considered contrary to an accepted principle that such educational methods should be as free as possible from moralizing.

The material given as a separate course in mental hygiene can lead to a matter being entirely isolated and, for the most part, leaves the child untouched as far as the rest of his life is concerned.

In a doctoral dissertation study at the University of Minnesota, Donald A. Leton utilized Bullis and O'Malley's materials together with mental-hygiene movies, role playing and hobbies and crafts activities in weekly meetings for one semester with eight experimental groups of ninth-grade students composed of thirteen students each. Both experimental and control groups were children who had received unsatisfactory scores on the Bell Adjustment Scale. At the end of the semester, Leton failed to find significant changes between experimental and control groups on several

\[25^{\text{Committee on Preventive Psychiatry of the Group for the Advancement of Psychiatry, op. cit., p. 5.}}\]

personality scales used to measure personality adjustment; nor did he find any significant difference in terms of school attendance or course grades. He did, however, find a significant relationship between the amount of improvement in adjustment scores and the extent of participation in group discussion. Also, experimental subjects made significant gains on a social distance scale.

A number of studies have been made utilizing Ojemann's materials for developing "causal relationships" among teachers and children. One of the earliest of these programs was a doctoral dissertation at the University of Iowa by Frances S. Stiles and later summarized in a March, 1950, article in the Journal of Educational Research.

Five behavior patterns were presented to 172 fourth, fifth and sixth-grade children in teachers' and pupils' manuals developed by Stiles. The five behavior patterns introduced by three stories in discussion guides were as

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follows: (1) behavior toward school playground rules, (2) teasing or bullying, (3) trespassing, (4) behavior toward property, and (5) audience behavior. The effects of the learning program, which was administered through one-hour discussion periods on six consecutive school days, were measured by the degree to which the child demonstrated an analytical approach to behavior problems which confronted him for solution in a room council situation. Ballot scores ranging from one to seven were assigned to each child on the basis of how analytical his solution to each problem was. The mean ballot score for each subject was obtained by averaging the ballot scores from four council meetings prior to the learning program and the scores from four council meetings following the learning program. Utilizing the t test, Stiles found significant changes beyond the .01 level of confidence in all six of the experimental classes, thus lending some evidence to his hypothesis that a program such as this could help children develop a more analytical approach to the problems of human behavior which confront them.

Another study utilizing Ojemann's materials was conducted by Paul Bruce at the State University of Iowa.29

Four sixth-grade classes which had undergone a learning program taught by "causally" trained teachers and utilizing some of Ojennan's materials were matched with control classes taught by teachers paired with the experimental teachers on the bases of such variables as age, sex, number of years teaching experience and educational level. Unlike the experimental classes, the control teachers did not have training in causal orientation and did not carry on a planned causal program in their classes. Bruce hypothesized that the causally-oriented classes would have greater self-acceptance as defined by lower mean Self-Ideal Discrepancy scores than would the non-causally oriented classes. In testing the significant difference between the means of the two groups the t score was in the predicted direction although not statistically significant. Also, Bruce found anxiety scores as measured by the Children's Manifest Anxiety Scale were significantly lower (beyond the .01 level of confidence) for children who had two years of causal orientation as compared to non-causal classes. Bruce concluded that causal orientation does not appear to be as closely correlated to self-ideal discrepancy but that it does appear to have the effect of making children less anxious.
Several other studies have been conducted by Ojemann and his associates in which teachers have been subjected to causal orientation training, and compared with non-causally oriented teachers in order to evaluate the comparative effects upon certain mental health factors in the children they teach. Two journal articles by Ojemann describe a study involving fourth, fifth and sixth-grade children taught by causally oriented teachers trained for one summer at the Iowa Preventive Psychiatry Summer Institute and utilizing Ojemann's materials in teaching the "causal approach" were matched with control groups of children judged to be equivalent in age, sex and I.Q. and taught by teachers matched with experimental teachers on the bases of age, sex, number of years teaching experience and educational level. In one of the tests, the Problems Situation Test, causally oriented children showed a significant reduction in the degree of "arbitrary punitiveness" when required to deal with hypothetical cases of misbehavior or deficiencies in children.


Differences between control and experimental subjects were greater than the .001 level of confidence. Also, on the Causal Test, which attempts to measure the child's awareness "of the dynamic, complex, variable nature of human motivation," experimental subjects showed greater causal understanding at better than the .001 level of confidence.

Utilizing the same experimental and control groups of children as described in the preceding study, Eugene Levitt found that the causally-oriented children showed significantly less authoritarianism as measured by the Anti-Democratic Tendency Scale Test developed by Gough and others than did the non-causally oriented groups. Also, the experimental subjects demonstrated more willingness to assume responsibility as measured by the Minnesota Responsibility Test than was demonstrated by the control subjects. In summarizing his findings, Levitt states:

It thus appears that as children become more aware of the dynamic complexities of human motivation and behavior, their attitudes toward others began to change from an authoritarian relationship to a more democratic one. Also, there appears a greater willingness to assume responsibility.32

In its evaluation of four projects which were utilized in the schools in bringing about promotion of mental health, the Committee on Preventive Psychiatry was impressed with the Ojemann material on six points:

Firstly: by the breadth of the approach which methodologically is not confined to the development of a course in human relations, but is oriented toward "humanizing" all content which deals with behavior.

Secondly: by the fact that pedagogical techniques are used as the primary tool. There is relatively little which could be called therapy within the entire program.

Thirdly: by the clarity and simplicity of the considerable written material. This is of tremendous aid both to students and to the relatively naive teachers.

Fourthly: by the enthusiasm of the students for this approach. It is as if an inherent wish were satisfied. We know that it is gratifying to the child to understand the how and why.

Fifthly: by the contagion of the interest of the students and teachers which stood out prominently. The teachers were affected by the students' interest to the point of noticeable changes in their attitudes and modification of their behavior.

Sixthly: by the absence of moralizing. A distribution rather than a dichotomy of ("right and "wrong") values is emphasized.33

The committee did criticize the Ojemann materials for its failure to help older children (seventh grade and up) to understand their more complex unconscious motivations. At the same time, the Committee recognizes that this omission

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33Committee on Preventive Psychiatry of the Group for the Advancement of Psychiatry, op. cit., p. 10.
in the Ojemann materials is probably an asset rather than a liability in that it "avoids the dangers and pitfalls of such an undertaking which would undoubtedly create a demand for therapy, which the teachers are not prepared to render effectively even at the most superficial level."\textsuperscript{34} Thus, the Committee recognizes that the real need is for better trained teachers which they acknowledge that Ojemann is now attempting to meet through longer and more detailed workshop training courses.

Apart from the aforementioned studies conducted by Ojemann and his assistants concerning the effectiveness of specifically training teachers in causal orientation in summer workshop, there are several studies which indicate that just giving teachers more understanding of the students they deal with will facilitate better mental health in the classroom. One of the earliest of these studies was conducted by Ojemann and Wilkinson\textsuperscript{35} in 1939 (this study undoubtedly was the forerunner for Ojemann's later studies in causal orientation). In this study personality and environmental data were given to teachers of

\textsuperscript{34}Ibid., pp. 10-11.

\textsuperscript{35}Ralph H. Ojemann and Frances R. Wilkinson, "The Effect on Pupil Growth of an Increase in Teacher's Understanding of Pupil Behavior," \textit{Journal of Experimental Education}, VIII (December, 1939), 143-147.
thirty-three experimental subjects together with rather extended suggestions as to their meaning and use. At the end of the school year the experimental group made a significantly greater academic gain than did the matched control subjects (even though the teachers were not aware that academic achievement would be used as a basis of comparison); the experimental group made significant positive gains in terms of measured school attitudes; and they also showed a significant reduction in the scores on a personality conflict test as compared to a slight but not significant increase in conflict on the part of the control group.

In a similar study by Anna Burrell\(^3\) one experimental teacher from each of the fourth, fifth and sixth grades attended an in-service program to help them to understand the emotional needs and symptoms of each of five students whom they had previously designated as having learning difficulties and who seemed to be rejected by their classmates. In addition, they were helped in planning and implementing a constructive program to help each of these children. They were paired with control teachers who did

not receive this training. One of the most important findings of the study was an increase in social acceptability in terms of standardized tests in two of the three experimental groups—whereas the control groups all showed losses in this aspect. Furthermore, working with the selective students of the experimental groups not only resulted in improvement in terms of social acceptance, learning, and personal adjustment of the few students, but resulted in gains experienced in these areas by the members of the total experimental classes.

Findings by Hugh Perkins, Jr. concur with these findings that giving teachers insight and understanding of their students results in the development of positive mental health traits. Perkins found that elementary children whose teachers had completed a three-year in-service child study program at the University of Maryland showed significantly greater self-ideal self-concept congruency than do children whose teachers have never participated in child study programs, although he found little relationship between self-ideal congruency and changes in either school achievement or acceptance by peers.

Several studies indicate that the type of atmosphere which the teacher creates in the classroom is an important determinant of mental health. In a study by Alva W. Graham, nine experimental teachers who emphasized democratic teaching methods and had as their primary interest individual personality development were compared with nine control teachers who emphasized autocratic methods in teaching and whose primary concern seemed to be subject-matter acquisition. All eighteen teachers were matched on a criterion of "excellence." At the end of four months statistically significant positive changes were registered by the experimental group in terms of: (1) attitudes toward liberal social actions, (2) attitudes toward defined groups (reduction in prejudice), (3) attitudes related to personal adjustment, and (4) attitudes related to helpfulness toward small children. Furthermore, in most cases, the attitudes of the control group were less favorable at the conclusion of the experiment than when the scales were first administered.

In a similar study by Robert Fleming the experimental teachers emphasized warm, friendly, helpful, relaxed

38Alva W. Graham, "Do Teachers Who Use Democratic Methods Develop Democratic Attitudes?" The Elementary School Journal, XLVII (September, 1946), 24-27.

relationships with twenty-six children who had been previously identified by a physician as having psychosomatic disturbances. These elementary children were compared with twelve control children also with psychosomatic disturbances taught by teachers who emphasized the fulfillment of subject matter requirements and made no special effort to meet the emotional needs of children. At the close of the experiment, a marked reduction in frequency of psychosomatic symptoms was found in the experimental group, and they showed a significant improvement in school attendance. The control group, on the other hand, showed no improvement in the frequency or intensity of psychosomatic symptoms, and their school attendance during the course of the experiment became progressively worse.

In a dissertation study by Leonard J. Savignano, hobbies and special interests were utilized in twelve experimental classes of fourth, fifth and sixth-grade children during the course of one semester in which the children were given free time to pursue their special interests, allowed free choice of reading periods and clubs, and were

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allowed to progress at their own rate. Opportunity was provided for display and discussion of specialties with classmates. At the close of the semester the experimental groups showed significant gains when compared with the control groups in tests measuring classroom adjustment and acceptance of the individual by his classmates.

Frank Slobetz and Alice Lund utilized a fifth-grade Scott, Foresman Company health book as a basis for developing a program of self-understanding and self-acceptance through a number of activities, stories, case studies, questionnaires and other projects which an experimental fifth-grade class pursued in a permissive atmosphere. On the basis of the second testing on the California Test of Personality the experimental group showed an over-all gain which approached statistical significance, and did achieve statistical significance on the following subtests: Self-Reliance, Sense of Personal Worth, Freedom from Nervous Symptoms, Social Skills, and Social Relations. The final score of the control group on the personality test deteriorated between first and second testings although not

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significantly; however, statistically significant negative scores were found on several subtests.

The preceding studies have had to do with programs for (1) giving children self-understanding, (2) giving teachers insight, and/or (3) with the types of classroom atmosphere conducive to good mental health. The next two studies are concerned with specific techniques which have been successfully implemented in the classroom programs dealing with mental hygiene.

John T. Robinson, in a dissertation study at Stanford University, utilized a sociometric interview in bringing about changes in social relations in a third-grade class over a two-year period. Nine choice situations were spaced at intervals over a two-year period in which children not only gave sociometric choices but were also asked to give value statements regarding reasons for each choice. The results of these interviews were integrated into an educational program to facilitate children's self-understandings and understanding of others in terms of bringing about better social relationships.

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Within a period of four months, the group structure changed from one in which a few highly chosen individuals chose each other and the unchosen children only made choices to these central persons, to an inclusive structure in which all but four children enjoyed social choice. Over a period of a year all of the children were included in the choice network. The increase in the number and variety of reasons for choice which focused on social traits and skills paralleled the expansion of the network of choice. Such attributes as giving and receiving help, being kind, being friendly, and having good ideas came into prominence. Skills, such as getting along with others, having good work habits, getting things done, and being dependable, increased as reasons for choice. Robinson concluded that even children at the third-grade level can become aware of their own and other's needs to belong, to feel wanted, to be accepted, and to feel competent when the teachers' behavior and methods emphasize these learnings.

Another study which emphasized a particular technique for promoting mental health was a dissertation study by William McCarthy, also of Stanford University. This study
compared role-playing and discussion as techniques for influencing children's thinking about social values.\textsuperscript{43} Twelve sixth-grade classes---four role-playing, four discussion, and four control---involving a total of 198 pupils, were matched on the basis of age, sex, grade, social class, intelligence and pre-test scores. Children were stimulated to find their own answers to hypothetical problems in a non-directive atmosphere in both the discussion and role-playing classes. The only difference between discussion and role-playing classes was the acting-out of solutions in the role-playing classes. In McCarthy's evaluation, the role-playing classes showed significantly higher scores than did the discussion and control classes in the following categories: reality-oriented solutions, morally or socially acceptable solutions, length of solutions (responded in more words), and number of consequences to their solution.

Finally, for children who already show symptoms of emotional disturbances and inadequate adjustment, Margaret L.

\textsuperscript{43}William G. McCarthy, "A Comparison of Discussion and Role Playing as Techniques for Influencing Children's Thinking about Social Values," unpublished doctoral dissertation, Department of Educational Psychology, Stanford University, Stanford, California, 1959.
Baumann conducted a dissertation research study at Northwestern University. Two groups of inadequately adjusted children were divided into two groups—Group I consisting of grades three, four, and five, and Group II containing grades six, seven, and eight. These groups were again divided into experimental and control groups. A twelve-week therapy program was worked out for the experimental groups in which instruction was handled so that the special needs of each child were met. The control groups did not receive this therapy program. Indications that the group therapy program was effective in bringing about desirable changes can be derived from the fact that as compared with the control group, the experimental group showed statistically significant gains on the California Test of Personality, a decrease in problems indicated on a behavior check list, and a significant gain in terms of school grades.

Summary

This chapter was divided into three sub-sections. In the first sub-section outstanding behavioral scientists

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concurred in the opinion that the schools have an important responsibility (which they are not at the present time fulfilling) in terms of developing mental health programs to be offered to children as an integral part of the regular curriculum. In the second sub-section various programs and techniques are described which have been developed by various individuals and groups in an attempt to meet this recognized need for mental health programs as early as the elementary school level. The third sub-section deals with research studies which have already been conducted in an attempt to determine the relative effectiveness of some of these programs and techniques in terms of promoting better mental health in the classroom.

Since these studies evaluate different facets of behavioral change, each utilizing different measuring instruments and involving different groups under different sets of circumstances; it will be impossible, of course, to draw any positive conclusions as to the relative superiority of any one program. However, the majority of the studies reported are in agreement that mental health programs which have been utilized in elementary schools have been effective in producing certain desirable behavioral changes which they attempted to measure with various
instruments of evaluation. Not only were statistically significant changes produced in many of the experimental groups in terms of direct personality and social change, but there were indications found in several studies that by-products were produced in terms of better academic achievement, improved school attendance, better attitudes toward school, etc. Certainly all of these changes are those that educators and behavioral scientists alike agree to be of the utmost importance.
CHAPTER III

METHODS OF PROCEDURE

In this chapter the materials utilized in the study, a pilot study of the materials, the groups involved in the actual study, the instruments used in measuring the results of the study, and the procedures for administering and evaluating the study are described.

Materials Used in the Study

Samples of various materials which have been developed for teaching mental health programs in the schools were evaluated for possible use in this study including all of the Ojemann materials and Bullis materials which were described in the preceding chapter. Because this present study was to be concerned with the effectiveness of a mental health program presented to pre-adolescent children at the fourth and fifth-grade levels, it was decided that the six booklet series prepared by Ojemann and his associates at the Preventive Psychiatry Research Project, entitled Why People Act as They Do, would be the most appropriate of all materials examined.

The *Why People Act as They Do* series consists of a six-volume set of paper-back booklets about the size of curriculum workbooks and are designed to be used by the students in conjunction with group discussion and participation periods in understanding "causal" relationships. These booklets are simply written for easy reading and comprehension and are amply illustrated with stick-figure drawings of the cartoon variety. Included in the booklets, in the vernacular and at the level of comprehension of pre-adolescents, are such psychological understandings and concepts as: the needs which motivate behavior, understanding why different persons behave in different ways, understanding the use of certain ego-defense mechanisms, and motivating children to think of alternative and more appropriate forms of behavior.

The materials succeed in getting children to actively participate in the processes which are used in bringing about attitude changes through suggested role-playing skits of situations involving causal understanding and blank spaces for children to record answers to stimulus questions such as, "Why does she have to be that way?" "Why does he act that way?" "What would be a better way?" "What would you do?" "How might this help?" etc. Also, the technique
is utilized where children are asked to write an ending to a story which ends at a climatic point after introducing a problem situation. Interspaced through all of these techniques for getting children personally involved in the processes of motivating attitude changes are "clues" to understanding behavior and causal relationships with a lot of review and reinforcement of concepts previously given.

A Pilot Study of the Materials

In order to evaluate the responses of pre-adolescent children to the Why People Act as They Do booklets, and in order to determine the best approach to teaching the course, the booklets were taught during an entire semester in twice-weekly thirty-minute discussion classes to one fifth-grade class in a school located in a separate community from the two communities where the actual experiment was conducted.

The materials were taught by the present investigator instead of by the regular classroom teacher. In order to put the children at ease regarding the new curriculum, and in order to allay any anxiety which might be attached to their "being graded" on this new "subject matter," the
children were assured at the first meeting that they would not have to "learn" this material, that no written work would be graded, nor would they ever be "tested" over this material. Even though each child was given a set of the booklets for the duration of the term, in order to further remove this study from ordinary subject-matter curriculum, they were told that they would do no writing at any time, the total time would be devoted to discussion. (This also kept the booklets free from any writing so that they could be passed from one teacher to another for use in a number of different classes.) The group then elected one child to act as a "recorder" who was given a spiral notebook and told to keep a record of group proceedings as they were recorded on the blackboard by the investigator who acted as the discussion leader. This notebook was kept at all times on a shelf in the classroom where it would be readily available to children to read or scan between the semi-weekly discussion classes.

The class was then asked to suggest "rules for good discussion" which were recorded on the first page of the notebook as they were written on the board. Among the rules which the class enumerated were "Wait until you are recognized by the discussion leader before you begin"
talking, "Don't interrupt someone else," "Don't make fun of anything that another person says," etc. Later, during the actual discussion periods over the contents of the booklets, if a child violated one of these rules, the discussion leader asked the "recorder" to please read the rule which had been violated by way of a reminder. The class, consisting of over thirty children, soon became molded into a good discussion group. The discussion responses made by the children to the Ojemann materials filled approximately two and one-half spiral notebooks before the semester was ended.

No evaluation was made concerning the effectiveness of the materials in the pilot study in terms of attitude changes. However, the enthusiasm manifested by the children toward the materials seemed to indicate that the materials were well adapted for children at the pre-adolescent age. The class seemed to welcome the thirty-minute discussion periods as a refreshing change to the regular school routine.

Groups Used in the Study

The actual research study was conducted in two separate public school systems in two different communities. Since throughout this study the experimental and control
groups of each community are analyzed separately with no attempt having been made to correlate the data obtained between the two communities—the groups from each community will have to be described separately in this section. It had originally been planned to utilize experimental and control classes in only one school system; however, it was later decided that the study would have more validity if other students from a different grade and from a different type of population were sampled. The criterion used for selecting each of these communities was the interest expressed and willingness shown by school officials in allowing the research study to be conducted in that particular community.

From the standpoint of this study there are several important differences in the structure of the groups being studied in each of the two communities. In one community only fourth-graders were involved in the study, whereas in the other community fifth-graders were studied. There was some difference in terms of instruments used in evaluating the results of the study between the two communities with slightly different aspects of personal and social change being tested. In one community control and experimental classes were paired within the same school, whereas in the other community all experimental classes came from different
schools from those in which the control classes were taken. And, perhaps most important, there was a very great difference in terms of the socio-economic structure in the two communities—with all that this entails in terms of differences in children's home and cultural backgrounds.

With all of these differences, there are some things that these two communities had in common: both were suburban school systems in North Central Texas, both were quite homogeneous in terms of their own socio-economic structure, and the children in both communities were randomly assigned to classes in the public schools. Because of these latter two factors it was felt that if all of the experimental classes and all of the control classes in each community were combined into one experimental group and one control group for Community "A" and one experimental group and one control group for Community "B" the number of statistical tables necessary to report the findings of this study would be minimized, and yet at the same time no violence would be done to the statistical assumption that each group was representative of the population as a whole. In tabulating the statistical results of this study, only those children were reported who had completed all of the
measures used in evaluating this study—both pre-tests and post-tests.

Table I, listed below, shows several differences between the experimental and control groups of each of the two communities as follows: the grade of the classes used in each community, the number of subjects in each group, the mean IQ scores made by each group, the $t$ scores in terms of differences between mean IQ scores for the experimental and control groups of each community, and the level of significance of differences for IQ scores. As the experimental and control groups in each community are described under the following sub-headings, Table I will be referred to again.

<table>
<thead>
<tr>
<th>Community</th>
<th>Grade</th>
<th>No. of Experi. Subj.</th>
<th>No. of Cont. Subj.</th>
<th>Mean IQ Experi. Group</th>
<th>Mean IQ Control Group</th>
<th>$t$</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>90</td>
<td>90</td>
<td>119.58</td>
<td>119.82</td>
<td>.116</td>
<td>N.S.</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>142</td>
<td>120</td>
<td>104.94</td>
<td>104.96</td>
<td>.012</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

2Elizabeth T. Sullivan and others, California Short-Form Tests of Mental Maturity, California Test Bureau (Los Angeles, California, 1957).
A Description of Groups in Community "A"

As will be noted in Table I on the preceding page, fourth-grade children were used in the study in Community "A" with both experimental and control classes having been taken from the same school. In each of two elementary schools involved in the study in this community, two fourth-grade classes were designated as experimental classes and the two remaining fourth-grade classes were designated as control classes—thus giving a total of four experimental and four control classes in this community. Teachers' willingness to teach the mental health materials used in this study was the criterion for designating which would be experimental classes and which control.

When the four experimental and the four control classes were combined at the end of the study to form one large experimental group and one large control group with all those being eliminated who had missed any of the testing, a total of ninety children were found for each of the experimental and control groups. Because, as has already been noted, Community "A" is quite homogeneous in terms of its socio-economic structure (it consistently ranks among the top cities of the nation in terms of per
person income), and because children are assigned randomly to classes in this school system, there is good reason to believe that the socio-economic variable is fairly well controlled between the experimental and control groups. Table I, page 51, offers further evidence of this in that mean IQ scores of both the experimental (119.58) and control (119.82) groups are exceptionally high (although well matched) which would be expected from children whose fathers are engaged in top professional and managerial positions. The fact that the difference in mean IQ scores between experimental and control groups is so small gives evidence that this variable, as well as the socio-economic variable, is well controlled.

A Description of Groups in Community "B"

All of the ten fifth-grade classes in Community "B" were involved in this study with experimental and control classes being taken from different schools. In two schools of the community, one containing three fifth-grade classes and the other having two fifth-grade classes, the teachers volunteered to teach the mental health materials used in this study and these became the experimental classes. The remaining five fifth-grade teachers, whose classes were
located in three other schools in the community (different schools than those from which the experimental classes were taken) agreed to participate in the testing only and thus became the five control classes.

At the end of the study the five experimental classes were combined into one large experimental group containing 142 subjects with only those children being included who had been present for all of the testing—both pre-tests and post-tests. As will be noted in Table I on page 51 the five control classes when combined contained 120 subjects. In terms of socio-economic structure Community "B" is quite homogeneous, being populated primarily by working class families in the skilled and unskilled labor category. Therefore, even though children in the experimental and control groups came from different schools in the community it is assumed that the variable of socio-economic status is equated to the extent that it will not affect the outcome of the study. Again, the similarity of mean IQ scores between the experimental and control groups as noted in Table I (104.94 for the experimental group and 104.96 for the control group) indicates not only that IQ is well controlled as a variable but also further corroborates the fact that both experimental and control groups came from
a highly similar population in terms of socio-economic background.

Instruments Used in Evaluating the Study

Table II, presented immediately below, lists the instruments—together with the actual measures used with each instrument—in evaluating the results of this study.

TABLE II

A LIST OF INSTRUMENTS USED IN EVALUATING THE STUDY WITH MEASURES ACTUALLY USED IN TESTING THE HYPOTHESES

<table>
<thead>
<tr>
<th>Instruments Used in Community &quot;A&quot;</th>
<th>Instruments Used in Community &quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Concept Scale</td>
<td>1. Self-Concept Scale</td>
</tr>
<tr>
<td>A. Perceived-Self Scale</td>
<td>A. Perceived-Self Scale</td>
</tr>
<tr>
<td>B. Ideal-Self Scale</td>
<td>B. Ideal-Self Scale</td>
</tr>
<tr>
<td>C. Discrepancy-Score Scale</td>
<td>C. Discrepancy-Score Scale</td>
</tr>
<tr>
<td>2. Bonney-Fessenden Socio-</td>
<td>2. &quot;How I Feel Toward Others&quot;</td>
</tr>
<tr>
<td>graph</td>
<td>Scale</td>
</tr>
<tr>
<td>A. Number of Choices Given</td>
<td>A. Sociometric Choosing Score</td>
</tr>
<tr>
<td>B. Number of Choices Received</td>
<td></td>
</tr>
<tr>
<td>C. Number of Mutual Choices</td>
<td></td>
</tr>
<tr>
<td>3. Institute of Child Study</td>
<td>3. Mental Health Analysis</td>
</tr>
<tr>
<td>Security Test</td>
<td>Test, Elementary Level</td>
</tr>
<tr>
<td>A. Security Score</td>
<td>A. Total MHA Score</td>
</tr>
</tbody>
</table>

As will be noted from Table II, the Self-Concept Scale is the only instrument used in both Communities "A" and "B"--
otherwise, different instruments are used in each of the
two communities. A description of each instrument used,
together with data concerning the reliability and validity
of each instrument is presented below in terms of three
sub-headings: (1) instruments which were used in both
communities, (2) instruments which were used only in Com-
munity "A," and (3) instruments which were used only in
Community "B".

**Instruments Used in Both Communities "A" and "B"**

A self-concept scale which yields a total of three
scores (perceived-self, ideal-self, and a discrepancy
score) was administered to children in both Communities
"A" and "B" both before and following the experiment. The
scale utilized is described in an article by Lewis P.
Lipsitt.³

The perceived-self section of the self-concept scale
contains twenty-two trait-descriptive adjectives as fol-
loows: "I am friendly, happy, kind, brave, honest, likeable,
trusted, good, proud, lazy, loyal, cooperative, cheerful,

³Lewis F. Lipsitt, "A Self-Concept Scale for Children
and Its Relationship to the Children's Form of the Manifest
Anxiety Scale," *Child Development*, XXIX (December, 1958),
463-472.
thoughtful, popular, courteous, jealous, obedient, polite, bashful, clean and helpful." The ideal-self scale contains the same adjectives only prefaced by "I would like to be" instead of "I am." The rating categories, scored from one to five on both the perceived-self scale and the ideal-self scale, are entitled "not at all," "not very often," "some of the time," "most of the time," and "all of the time." One point is received on an item if number one is encircled which signifies "not at all," up to five points if number five, signifying "all of the time," is encircled, with the exception of the three negative adjectives (lazy, jealous and bashful) which are scored in inverse order. The discrepancy score is determined by subtracting the total perceived-self score from the total ideal-self score.

In correlating the results of this self-concept scale with the Children's Manifest Anxiety Scale, with approximately 300 children at the fourth, fifth and sixth-grade levels, Lipsitt found a significant negative relationship between the self-concept scores and the anxiety scores as measured by the CMAS at each of the grade levels and with both sexes correlated separately. Also, four of the six
classes involved in the study showed a statistically significant correlation between perceived-self, ideal-self discrepancy scores and the anxiety scores—thus giving some support to the hypotheses stated in Chapter I that the greater the discrepancy between perceived-self and ideal-self the more anxious children become.

Instruments Used only in Community "A"

Bonney-Fessenden Sociograph.—In evaluating the Bonney-Fessenden Sociograph for The Fifth Mental Measurement Yearbook, Ake Bjerstedt, professor of psychology at the University of Lund in Lund, Sweden, described it as follows:

The Bonney-Fessenden Sociograph might, perhaps, be most quickly described as the folded sociomatrix: the ordinary sociomatrix, in which each pair-relation is described by two cells, may be thought of as folded along the main diagonal so that the two cells common to two people coincide. . . . Each cell has two compartments, one for outgoing choices and one for incoming choices. By this device, mutual choices between two individuals occur in one cell and are consequently much more readily revealed than in the non-folding type of tabulation. This is, in fact, the unique contribution of the sociograph, which could, therefore, be recommended as a time-saving device when we are especially interested in two-way relations.5

The reason the Bonney-Fessenden Sociograph was utilized in measuring social change in Community "A" rather than the easy to score sociometric instrument which was utilized in Community "B" was the fact that school officials in Community "A" would not permit any type of negative sociometric choosing such as is involved in the other instrument.

Therefore, it was decided to take three sociometric measures from the Bonney-Fessenden Sociograph, (1) number of choices given, (2) number of choices received, and (3) number of mutual choices as indices of changes occurring in terms of social relationships.

Concerning the reliability of sociometric data, the Bonney-Fessenden Sociograph Manual summed up the findings from a number of reported studies as follows:

All the above data emphasize that an individual's choice-value in a particular group is characterized much more by stability than by fluctuation. A teacher may assume, therefore, that the relative ranks achieved by pupils in a particular sociometric appraisal are fairly representative of the ranks which they will achieve from subsequent appraisal on the same or similar criteria. It should be recognized that this stability does not necessarily result from repeated choices made by the same individuals. Frequently, a real contribution of the sociometric approach is the noting of shifts of individuals from clique to clique.\(^6\)

---

In a discussion of validity of sociometric measures the Bonney-Fessenden manual makes the following observations:

The validity of sociometric results depends upon one's point of view. From one standpoint, when pupils give honest and sincere responses to a sociometric question, it can be said that these responses have "face validity" in the sense that no one is a better judge of an individual's feelings toward others than is this individual himself. In other words, a sociometric evaluation is a direct measure of the kind of behavior under investigation. When the members of a group are asked to state their preferences for each other as playmates, work associates, or roommates, and they do so with honesty and sincerity, their feelings toward each other have been measured directly in regard to the stated criterion.

The second way of approaching the validity of sociometric results is to assume that if they are measuring something that is important or significant about human behavior, they should show some relationship with other methods of assessing personal-social adjustment. . . . The question then becomes: to what extent are sociometric scores valid indicators of good or poor personal-social adjustment as determined by other methods of assessment?

This question can be answered with present evidence in regard to personality, self-reporting inventories, teacher ratings of pupils' personal and social behavior, pupils' ratings of each other, projective devices, and observational records obtained on overt social behavior.

The research findings in regard to all of these methods of personality measurement in their relationships with sociometric data are very similar in two respects: (1) When total groups are studied, the relationships between these various methods of personality assessment and sociometric scores are not marked, but (2) when those who are high in choice-status (such as the upper fourth) are contrasted with
those who are low, the findings are quite consistent in showing most frequently-chosen individuals to be reliably superior to the infrequently-chosen individuals in some psychologically and/or socially approved types of behavior adjustments.\(^7\)

**Institute of Child Study Security Test.** -- In evaluating the Institute of Child Study Security Test for *The Fifth Mental Measurements Yearbook*, Laurance F. Shaffer, professor of psychology at Columbia University, states:

The Institute of Child Study Security Test is a verbal method, based on the assumption of projection which seeks to disclose a child's degree of security, the levels of behavior by which he maintains it, and his consistency in the use of these levels. The child reads "The Story of Jimmy," which is interrupted 15 times by a need to make a decision. At each of these points, the child ranks five statements which are designed to illustrate "independent security," "mature dependent security," "immature dependent security," "deputy agent" (equivalent to the use of various defense mechanisms), and "insecurity."

The security score is a measure, ranging from zero to one hundred of the degree of which the child's ranking of the items agrees with an "ideal" order. The consistency score measures the degree of uniformity the child shows in giving the same rank to the fifteen statements for each of the five security categories.\(^8\)

Concerning the reliability of the Institute of Child Study Security Test the manual reports that test-retest

\(^7\)Ibid., pp. 6-7.

reliability coefficients for three groups of fifth-grade children over a two-months period were .902, .950, and .762, respectively, for a total reliability coefficient of .906. In order to test validity, the first draft of the test was given to nine staff members acquainted with security theory who were asked to work independently and label each item as Independence Security, Mature Dependence Security, Immature Dependence Security, Deputy Agent, or Insecurity within each of the fifteen test situations. Six groups of third-year university students who had completed a year's course in security theory were asked to perform the same task as the staff on the first revision of the test, except that the students were asked to work in teams of five and to do the exercise as a group project. Per cent agreement for the staff on the first draft of the test ranged from 77 per cent to 61 per cent on the five categories. On the revised form of the test, the per cent agreement for the student group ranged from 87 to 83 per cent. As a further test of validity, a statistically significant correlation at the .01 level of confidence was

10Ibid., pp. 6-7.
found between fourth-graders' scores on the Institute of Child Study Security Test and teachers' assessment of children on the Behavior Rating Scale (on which children were rated on five criteria: faces up to things, makes up his mind, attitude toward learning, sure of himself, and over-all adjustment to home, school, work and friends). A correlation at the .05 level of significance was also found in the fifth-grade children, but for grades six and above the correlations were not significant and the older the children, the smaller the correlation.¹¹ Laurance Shaffer explains this phenomenon in that "the younger child is more naive, while the older one resists a spontaneous identification with the child in the story, or attains a sophistication in understanding the intention of the test items."¹² Despite this limitation, however, Shaffer feels that the Institute of Child Study Security Test "clearly demands consideration, at least as an instrument for children ten to eleven years old. It has more evident merit than many better known tests and deserves further development."¹³

¹¹Ibid., pp. 10-11.
¹²Shaffer, op. cit., p. 76.
¹³Ibid.
Instruments Used only in Community "B"

How I Feel Toward Others.--In an article entitled "Choosing Between the Sexes on a Sociometric Measurement," Merl E. Bonney discusses a study of inter-sex choosing among elementary children utilizing a sociometric measurement designated How I Feel Toward Others.14 This scale consists of two degrees of acceptance—the highest degree of acceptance called "My Best Friends" and the second level of acceptance, "My Other Friends." The third category is composed of "Children I Don't Know" followed by two degrees of rejection: "Children I Know but Who Are Not My Friends," and "Children I Do Not Want to Have as Friends--As long as They Are Like They Are Now." Each of these categories is followed by four descriptive statements so the children are clear as to the meaning of each category. Children rate each child in the classroom by encircling a number one through five opposite the child's name which he feels best characterizes his relationship toward the child. Scoring is very easily done with category one worth plus-two points, category two given plus-one point, zero points for category three, category four

is minus-one point, and category five minus-two points. Since after the scores are tabulated, it is possible for a child's total score to be negative, 100 points were added to the total score of each test to facilitate use of the scores in terms of statistical manipulation.

Regarding the reliability of this particular socio-metric device, a table is presented in the article by Bonney in which the constancy of scores on choices received on two successive administrations of the test for fifteen fourth, fifth and sixth-grade classes is reported.\(^\text{15}\)

In time intervals between testing ranging from two days to four months correlations between successive group ranks ranged from .94 to the lowest of .62—all of which are highly reliable statistically. In terms of validity of this test, the same statement which was made earlier concerning the face validity of the Bonney-Fessenden Socio-graph is applicable here as well. Bonney sums up socio-metric validity as follows: "... the feelings which one person expresses toward another are not an index to something else against which they must be validated. These feelings carry their own validity for the particular persons concerned.\(^\text{16}\)

\(^{15}\text{Ibid., p. 101.}\)\(^{16}\text{Ibid., p. 102.}\)
Mental Health Analysis, Elementary Level.—The Mental Health Analysis Manual describes the scale as follows:

The Mental Health Analysis consists of two-hundred questions to which the examinee responds "yes" or "no." These questions are designed to sample the individual's adjustment in ten important areas of behavior. The questions are classified according to two broad Categories, Assets and Liabilities. Each of these Categories is subdivided into five Components.17

Mental Health Assets are attitudes, beliefs, aspirations, skills and achievements which contribute to a sense of well-being and which support progress toward realizing one's fullest potentialities. These are to be sought or amplified in promoting mental health.

Mental Health Liabilities are threats to emotional security which impede the attainment of needed satisfactions and objectives. These threats are to be minimized or corrected in promoting mental health.18

In terms of reliability, the Mental Health Analysis Manual reports a reliability coefficient of .90 for the total Mental Health Analysis score in a study involving 425 elementary children.19 The authors describe as follows their attempt to assure validity of the Mental Health Analysis through the adequate selection of test items:

Thirty or more items based on logical or clinical criteria were developed for each of the ten

18Ibid., p. 4.  
19Ibid., p. 5.
Components. These items were administered to approximately two hundred individuals at each level. The most discriminating items in each Component were identified. From the item data thus produced, twenty items were chosen for each Component. After the twenty items for each Component had been chosen, a second item study was conducted with the three upper levels of the Analysis. . . . 20

Five studies are summarized in the Mental Health Analysis Manual which the authors feel give concurrent validity to the Mental Health Analysis. In summing up these studies the following statement is made:

These five studies give positive support to the ability of the Liabilities category and components, the Assets category, and the total score to differentiate between groups of individuals that have been judged to differ in adjustment patterns by some outside criterion. The Assets components differentiated between groups in three of the five studies. 21

One of these five studies summarized, a doctoral dissertation study by Robert Barron, involved a correlation between scores made on two of the same types of instruments as those which are utilized in this present study. 22 In Barron's study a sociometric instrument was administered to 443 fifth and sixth-grade children.

20Ibid., p. 5.
21Ibid., p. 9.
Acceptance status was determined in terms of centile ranks within the classroom group—with the upper 25 per cent defined as "accepted" and the lower 25 per cent as "rejected." The degree of association between the various mental health scores made on the Mental Health Analysis and social acceptance status was then determined. Statistically significant correlations were found between eleven of the thirteen Mental Health Analysis scores and degree of acceptance in the classroom.

Procedures for Administering and Evaluating the Study

Procedures used in testing both the experimental and control groups and in teaching the Ojemann materials to the experimental classes were quite similar in Communities "A" and "B"--the only exceptions being the different instruments used in each community. The investigator met with all of the experimental and control teachers in a general meeting held in each community separately. At these meetings the purposes of the study were outlined and samples of all the tests to be used in evaluating the study in that particular community were passed out to the teachers. After sample tests were given to each teacher, a detailed explanation was made as to how the tests should
be administered by the teachers in order to assure that the testing phases of the study would be uniform. After all of the questions had been answered concerning the administration of the test, an adequate number of all of the tests to be used were given to the teachers so that they could begin administering the pre-tests in their classrooms immediately. These meetings with teachers in each of the two communities were held soon after the Christmas Holidays during the first part of January, so that all pre-tests could be completed before the beginning of the spring semester. Toward the end of the fall semester all of the completed tests were collected by the investigator who scored them and later made the results available to the teachers.

At the beginning of the spring semester, after all of the pre-tests had been collected from experimental and control teachers, the investigator met with the teachers of the experimental classes in separate meetings in each community in order to discuss procedures for uniform teaching of the Ojemann materials. The procedures which the experimental teachers were to follow in teaching the materials were very similar to the procedures which had been used successfully in the preceding school year in the pilot
study which has been described earlier in this chapter.

The experimental teachers were instructed to teach the Ojemann booklets in thirty-minute sessions conducted twice each week for the entire spring semester. The teachers were encouraged to set "discussion standards" with their classes at the introductory session, and within the limits of these "good discussion manners" to attempt to create a permissive atmosphere where children would feel free to discuss the problems and questions projected by the Ojemann booklets as they applied to themselves. The particular volume of the Ojemann set of booklets that the children were using in a particular session were to be passed to the students at the beginning of the session and to be collected by the teacher at the end of each session. This procedure helped the children to follow the rule that they were to make no marks on the booklets, and also made the books readily available to other experimental classes since the books were shared by all of the experimental classes in each school.

Although none of the experimental classes were observed by the investigator while the materials were actually being taught, the investigator checked with the experimental teachers individually approximately once every two weeks.
concerning the progress that was being made in the mental hygiene sessions. In every case the experimental teachers reported a great deal of interest and enthusiasm by the children in the program.

About two weeks before the end of the spring semester, after the Ojemann materials had been taught in the experimental classes for approximately four months, the investigator distributed the same instruments which had been used in the pre-testing to all of the teachers (both experimental and control) in both communities so that they might administer the post-tests to their classes. At the end of the school year, all of the post-tests were collected and scored by the investigator. A statistical comparison utilizing t tests has been made concerning changes from pre-test to post-test scores between experimental and control groups, and the results of these findings are reported in detail in the following chapter.
CHAPTER IV

FINDINGS

The data obtained from all tests utilized in this study were punched on IBM cards and were processed by the IBM machine. Since in both Communities A and B children were assigned randomly to classes, and since socio-economic background and IQ's were quite similar for children in each community, it was felt that the most powerful parametric test, the t test, could best be utilized as a basis of statistical comparison between the pre-test and post-test results for the experimental and control groups. The results of this study were placed in tables which were included in this chapter under the sub-headings of the various hypotheses stated in Chapter I.

The First Hypothesis

The first hypothesis as stated in Chapter I was that children in the experimental groups would manifest greater positive changes on self-concept scores as shown by (1) greater improvement in perceived-self scores, and
(2) by greater increased congruency between perceived-self and ideal-self than would be shown by children in the control groups. Since children from both Communities A and B took the same self-concept test, Tables III and IV which give the findings concerning this hypothesis will show the results for both communities.

Table III, which immediately follows, shows the difference in pre- and post-testing of the perceived-self scores indicating how children perceive themselves. It

**TABLE III**

**MEAN CHANGES IN PERCEIVED-SELF SCORES FOR BOTH COMMUNITIES A AND B**

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial Score</th>
<th>Mean Final Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>4</td>
<td>90</td>
<td>86.18</td>
<td>88.33</td>
<td>2.15</td>
<td>1.58</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control</td>
<td>4</td>
<td>90</td>
<td>88.79</td>
<td>88.28</td>
<td>- .51</td>
<td>.36</td>
<td>N.S.</td>
</tr>
<tr>
<td>Community B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>5</td>
<td>142</td>
<td>88.09</td>
<td>87.16</td>
<td>- .93</td>
<td>.86</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>120</td>
<td>86.03</td>
<td>87.71</td>
<td>1.68</td>
<td>1.09</td>
<td>N.S.</td>
</tr>
</tbody>
</table>
was hypothesized that as children gained in "causal" understandings—understanding why they themselves behave as they do—that there would be an increase in scores indicating a greater degree of self-acceptance.

The data presented in Table III tend to disprove part one of the first hypothesis—that children in the experimental groups would show greater gain in "Perceived-Self" scores than would children in the control groups. As shown in Table III, the experimental subjects in Community A did show a mean gain in "Perceived-Self" scores whereas children in the control group showed a very slight deterioration in "Perceived-Self" scores; however, in Community B the situation was reversed although score changes were not as large. Since none of the gains or losses were statistically significant, and since the gain in the experimental group in Community A was offset by a slight deterioration in the experimental group in Community B, the conclusion was made that the way in which a child perceives himself is so deeply rooted in terms of his total development, environmental factors, etc., that it does not lend itself to easy change in a course such as the one described in this study taught for only a relatively short period of time.
However, there is another possible explanation for the failure of children who were exposed to "causal" understandings showing a greater increase in "Perceived-Self" scores than did children who did not have these types of understandings which may be valid. Studies reported earlier have indicated that as children gain in self-understanding they also tend to show gains in self-acceptance. It may well be, then, that the "causally" oriented children were more objective and analytical in terms of the responses they made on the second "Perceived-Self" test. Since they had a better understanding and acceptance of their own behaviors and feelings, they may have been able to respond more realistically to questions concerning their perceptions of themselves without feeling a need to "overly-idealize" themselves and feeling less threatened in acknowledging their own perceived weaknesses and shortcomings.

The second part of the first hypothesis was that experimental subjects would show a greater gain in congruency (actually measured by a lessening of discrepancy) between perceived-self and ideal-self scores. The rationale for this part of the hypothesis is stated in Chapter I.
Table IV, below, gives the findings for the second part of the first hypothesis.

**TABLE IV**

**MEAN DISCREPANCY SCORES BETWEEN PERCEIVED-SELF AND IDEAL-SELF FOR BOTH COMMUNITIES A AND B**

<table>
<thead>
<tr>
<th>Community A</th>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial Disc.Sc.</th>
<th>Mean Final Disc.Sc.</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>4</td>
<td>90</td>
<td>14.80</td>
<td>15.78</td>
<td>.98</td>
<td>.80</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4</td>
<td>90</td>
<td>14.99</td>
<td>17.63</td>
<td>2.64</td>
<td>1.98</td>
<td>.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community B</th>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial Disc.Sc.</th>
<th>Mean Final Disc.Sc.</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>5</td>
<td>142</td>
<td>15.56</td>
<td>16.49</td>
<td>.93</td>
<td>.94</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>5</td>
<td>120</td>
<td>16.89</td>
<td>18.32</td>
<td>1.43</td>
<td>1.06</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

As will be noted in Table IV, both the experimental and control subjects in both Communities A and B showed a greater discrepancy between mean perceived-self and ideal-self scores in the final test than they showed in the initial test, although in only one group (the control group of Community A) was the difference between pre- and post-tests large enough to be statistically significant.
However, in both Communities A and B the control groups showed larger mean differences in discrepancy scores between perceived-self and ideal-self than did the experimental groups as hypothesized. This finding, although the results were statistically significant in only one community, nevertheless is in the direction predicted for both communities. Thus, there is some indication that were the course to continue for a longer period of time, the "causally" oriented children might well exhibit increased congruency scores.

The Second Hypothesis

The second hypothesis as stated in Chapter I was that children who manifest "causal" understanding will show a greater increase in acceptance of others as measured by sociometric scales than will children who have not been exposed to "causal" understanding. Tables V and VI, which follow, show the findings concerning this hypothesis. The reason two tables were used is because, as stated in the previous chapter of this study, different sociometric instruments were utilized in each community. Therefore, Table V will give the results of three scores taken from the Bonney-Fessenden Sociograph used in Community
A and Table VI will give the sociometric scores from the

How I Feel Toward Others scale which was used in Community B.

### TABLE V

**MEAN CHANGES ON CERTAIN BONNEY-FESSSENDEN SOCIOGRAPH
SCORES AS USED IN COMMUNITY A**

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Subj</th>
<th>Mean Initial CG Score</th>
<th>Mean Final CG Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4 90</td>
<td>6.07</td>
<td>9.86</td>
<td>3.79</td>
<td>6.44</td>
<td>Beyond .001</td>
</tr>
<tr>
<td>Control</td>
<td>4 90</td>
<td>6.56</td>
<td>7.40</td>
<td>.82</td>
<td>1.56</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Subj</th>
<th>Mean Initial CG Score</th>
<th>Mean Final CG Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4 90</td>
<td>6.07</td>
<td>10.08</td>
<td>4.01</td>
<td>6.22</td>
<td>Beyond .001</td>
</tr>
<tr>
<td>Control</td>
<td>4 90</td>
<td>6.69</td>
<td>7.51</td>
<td>.82</td>
<td>1.34</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Subj</th>
<th>Mean Initial CG Score</th>
<th>Mean Final CG Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4 90</td>
<td>2.88</td>
<td>5.13</td>
<td>2.25</td>
<td>6.33</td>
<td>Beyond .001</td>
</tr>
<tr>
<td>Control</td>
<td>4 90</td>
<td>3.38</td>
<td>3.92</td>
<td>.54</td>
<td>1.43</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

In all three measures of friendship choices given, the children who were exposed to the course in "causal" understandings showed a statistically significant increase
between first and second testings beyond the .001 level of significance. The children in all three of the control groups, on the other hand, made small, but not significant gains in all three scores. Thus, the results seem to give strong support to the hypothesis that "causal" understanding tends to make children more accepting of each other.

Further support of the second hypothesis is found in Table VI immediately following. Table VI reports the results of sociometric testing in Community B which utilized the How I Feel About Others scale which was described in the preceding chapter.

**TABLE VI**

**MEAN CHANGES ON THE HOW I FEEL ABOUT OTHERS SOCIOMETRIC SCALE AS USED IN COMMUNITY B**

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial Score</th>
<th>Mean Final Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>5</td>
<td>142</td>
<td>113.73</td>
<td>118.39</td>
<td>4.66</td>
<td>2.33</td>
<td>.02</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>120</td>
<td>114.55</td>
<td>116.57</td>
<td>2.02</td>
<td>.86</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

In Table VI immediately preceding it was found that, although the experimental group made a slightly smaller mean initial score on the How I Feel About Others scale
than did the control group, their increase on the mean final score was at the .02 level of significance statistically, whereas the increase registered by the control group was not great enough to be statistically significant. Therefore, in both Communities A and B each involving a different type of sociometric measure, the findings tend to support the hypothesis that children who understand "causal" relationships are more accepting of each other than are children who do not have these understandings.

The Third Hypothesis

The third hypothesis of this study as stated in Chapter I was that children in the experimental group who have "causal" understandings will manifest a greater gain between first and second testings on the Institute of Child Study Security Test than will children in the control group who have not been exposed to "causal" understanding. Table VII, immediately following, shows the findings concerning this hypothesis which was tested only in Community A.

The findings reported in Table VII failed to support the third hypothesis in that, while both experimental
TABLE VII

MEAN CHANGES ON INSTITUTE OF CHILD STUDY SECURITY SCORES AS MEASURED IN COMMUNITY A

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial Security Score</th>
<th>Mean Final Security Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4</td>
<td>90</td>
<td>71.47</td>
<td>75.24</td>
<td>3.77</td>
<td>2.23</td>
<td>Beyond .05</td>
</tr>
<tr>
<td>Control</td>
<td>4</td>
<td>90</td>
<td>69.28</td>
<td>75.26</td>
<td>5.98</td>
<td>3.21</td>
<td>Beyond .01</td>
</tr>
</tbody>
</table>

and control groups showed statistically significant gains, the gains made by the control group were larger than the gains made by the experimental group. It was therefore concluded that factors other than the course in "causal" understandings must have accounted for the gains made in both experimental and control groups.

The Fourth Hypothesis

As stated in Chapter I, the fourth hypothesis of this study was that children who have causal understanding will manifest a greater gain between first and second testings on the Mental Health Analysis Scale than will children who do not have these understandings. In Table VIII immediately following the findings concerning this hypothesis will be
reported. The *Mental Health Analysis Test* was used only in Community B.

**TABLE VIII**

**MEAN CHANGES ON THE TOTAL SCORE OF THE MENTAL HEALTH ANALYSIS TEST AS USED IN COMMUNITY B**

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th>No. of Subj.</th>
<th>Mean Initial MHA Score</th>
<th>Mean Final MHA Score</th>
<th>Mean Difference</th>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>5</td>
<td>142</td>
<td>142.28</td>
<td>147.34</td>
<td>5.06</td>
<td>1.87</td>
<td>N.S.*</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>120</td>
<td>138.71</td>
<td>136.76</td>
<td>-1.95</td>
<td>.61</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

*Approximately .05.

In Table VIII, immediately preceding, it was reported that the experimental group showed a strong change approaching statistical significance between first and second testings on the *Mental Health Analysis Test*. The control group, on the other hand, showed a slight, although not significant, deterioration between first and second testings. This gain made by the experimental group, especially in light of the deterioration which was shown by the control group, tends to give some support to the fourth hypothesis, even though the differences were not large enough to be conclusive.
Summary of the Findings

Findings concerning each of the four hypotheses stated in Chapter I were reported in tables in this chapter together with tentative conclusions drawn as to their support or lack of support of each stated hypothesis. Very briefly these findings and tentative conclusions are summarized immediately following.

The First Hypothesis.—Results were inconclusive on the first part of the hypothesis that experimental children would show greater mean improvement on perceived-self scores than would control groups. In Community A the experimental subjects did show greater mean improvement in perceived-self scores, but in Community B the control group showed greater mean improvement. It was hypothesized that this failure on the part of the experimental group to evidence change in perceived-self scores might be due to the fact that they had become more analytical and better able to make a more realistic evaluation of themselves.

There was some support, however, for the second part of the hypothesis that the experimental subjects would show a greater mean gain in congruency between perceived-self and ideal-self than would the control groups, although
the changes were not large enough to be strongly conclusive. Nevertheless, in both Communities A and B the experimental groups showed a lessened mean discrepancy score, whereas in Community A the control group showed a statistically significant gain in the mean discrepancy score.

The Second Hypothesis.—In both Communities A and B there were strong statistically significant support for the second hypothesis that children who had learned causal understandings would manifest better acceptance of others as measured by sociometric scales. In Community A the experimental subjects showed mean increases beyond the .001 level of significance in terms of increased scores on each of three measures: choices given, choices received, and mutual choices. The control group, on the other hand, failed to show significant changes on any of these three criteria. In Community B the experimental group showed an increased mean score at the .02 level of significance in sociometric choosing on the How I Feel About Others scale. The control groups' gain on the same scale was not significant.
The Third Hypothesis.--The third hypothesis, which stated that the experimental subjects would manifest a greater gain on the Institute of Child Study Security Test than would the control subjects, was rejected, even though both experimental and control groups showed statistically significant mean positive gains on this scale. However, the control groups' mean gain was greater than the gain made by the experimental group. Thus, it was concluded that factors other than the course in "causal" relationships must have accounted for the gains which were reported in both groups.

The Fourth Hypothesis.--The fourth hypothesis, that children who have "causal" understanding will manifest a greater gain on the total score of the Mental Health Analysis Test than will children who do not have "causal" understandings, was given tentative support in the findings in that the experimental subjects registered a mean gain which approached statistical significance, whereas the control subjects showed slight deterioration between first and second testings.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem of this study was to determine what changes would take place in certain personal and social attitudes of pre-adolescent children at the fourth- and fifth-grade levels as a result of their having gained "causal" understandings through a course taught twice-weekly for one semester utilizing Ojemann's six booklet set of "causally" oriented materials entitled Why People Act as They Do. Hypotheses which were tested in the study were that "causally" oriented children would show greater changes than children without "causal" understandings in terms of: perceived-self, congruency between perceived-self and ideal-self, friendship choosing on sociometric scales, security scores, and total mental health scores.

Two communities were involved in the study with control and experimental groups being matched on IQ and socio-economic background from each community separately, no attempt having been made to correlate findings between the two communities. In Community A four fourth-grade classes who
received the "causally" oriented instruction were combined for purposes of simplifying the reporting of the results into one experimental group of ninety subjects—made up only of those children who had completed all of the tests—both pre- and post-tests used in the study. The four fourth-grade control classes were also combined into one large group of ninety subjects. In Community B five experimental fifth-grade classes were combined into one large experimental group composed of 142 subjects, whereas the five control fifth-grade classes contained a total of 120 subjects.

An analysis of the findings gave no statistical support for part one of the first hypothesis concerning greater changes in perceived-self first being manifested for the experimental subjects, although it was hypothesized that "causally" oriented children became more analytical in terms of self-evaluation. However, there was some support in both communities for the second part of the hypothesis concerning the "causally" oriented groups having shown a greater increase in congruency between perceived-self and ideal-self than was shown by the control groups.

Sociometric scales in both communities gave very strong statistical support for the second hypothesis that
"causally" oriented subjects would show an increased acceptance of others as exhibited by increased sociometric choosing. However, no support was found in Community A for the third hypothesis that the experimental group would show a greater increase in security scores than would be shown by the control group. In Community B, on the other hand, some evidence—which approached statistical significance—was found to support the fourth hypothesis that "causally" oriented children would show a greater increase in total mental hygiene scores over children who had not received "causal" training (the control group having shown a slight deterioration between pre- and post-tests).

Conclusions

Conclusions drawn from the findings of this study are that as a result of children having been taught a course in "causal" relationships, even for only one semester, empirical evidence indicated that it was effective in bringing about changes in certain personal and social attitudes. In the present study changes were brought about in the following attitudes: greater congruency between perceived-self and ideal-self, strong changes were effected in terms of children's becoming more accepting of others,
and experimental subjects showed an over-all increase in a total mental health analysis score whereas control subjects showed a slight deterioration between first and second testings.

Recommendations

The first and most obvious recommendation is that this study and similar types of research involving still other personal and social attitude changes as a result of materials taught in "causal" understandings need to be repeated. Then, if other research continues to bear out the findings of this present study that changes do indeed take place, school administrators and curriculum directors need to consider carefully the feasibility of making similar type courses a part of all elementary school curriculum programs. Certainly, bringing about personal and social acceptance on the part of children is a more worth-while goal than that set forth as goals for many other required curriculum offerings.

Other important recommendations resulting from this study would be that still better materials need to be developed for teaching "causal" understandings to every age group—materials which would take each class through
the whole year. These materials should be constructed
at the understanding and interest level of each grade
introducing children to new concepts and reinforcing old
concepts so that a comprehensive preventive mental hygiene
program is offered to children through their entire school
career. And preferably the teaching of "causal" under-
standings should be integrated into the total school pro-
gram rather than being taught as an isolated course. Of
course, research should be continuously conducted as to
the effectiveness of the programs offered and the methods
used for administering the program to different children
in different environments so that optimum development can
take place.
BIBLIOGRAPHY

Books


**Articles**


Frank, Lawrence K., "The Reorganization of Education to the Promotion of Mental Health," *Mental Hygiene*, XXIII (October, 1939), 529-543.


Reports

Committee on Preventive Psychiatry of the Group for the
Advancement of Psychiatry, Promotion of Mental Health
in the Primary and Secondary Schools: An Evaluation
of Four Projects, Report No. 18, Topeka, Committee on
Preventive Psychiatry, 1951.

Ojemann, Ralph H., Four Basic Aspects of Preventive Psy-
chiatry, Iowa City, Committee on Preventive Psychiatry,
Proceedings, University of Iowa, 1957.

State Planning Committee for School and Community Health
Education, The Blondie Comic Book: A Teaching Aid
in Mental Health, Columbus, Ohio, Division of Mental
Hygiene, 1953.

Publications of Learned Organizations

Bullis, H. Edmund and O'Malley, Emily E., Human Relations
in the Classroom, Course I, Wilmington, Delaware,
Delaware State Society for Mental Hygiene, 1948.

Ojemann, Ralph H., Chairman, The Preventive Psychiatry
Research Project, Why People Act as They Do, (6 volumes),

Ojemann, Ralph H., editor, Reading Materials About Behavior
for Use by Parents and Children in the Home, Part I,

Ojemann, Ralph H., The Student Council, Iowa City,

Ojemann, Ralph H. and Hawkins, Alice, A Teaching Program
in Human Behavior and Mental Health: Handbook for
Kindergarten and First Grade, Book I, Iowa City, Iowa

Skretting, J. R., Mirick, Dorothy M., and Blair, Alma R.,
Study Guide for Ninth Grade Social Studies, Part VII,

Young, Chic, Blondie, New York, National Association for
Mental Health, 1950.
Test Manuals


Sullivan, Elizabeth T. and others, *California Short-Form Tests of Mental Maturity*, Los Angeles, California Test Bureau, 1957.


Unpublished Materials

Baron, Robert B. D., "Mental Health Factors Associated with Social Acceptance and Social Rejection," unpublished doctoral dissertation, School of Education, University of Southern California, Los Angeles, California, 1948.


