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A study of health knowledge, practices and attitudes between selected groups of elementary pupils in the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964

Joe Norwood Weems
Atlanta University

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A STUDY OF HEALTH KNOWLEDGE, PRACTICES AND ATTITUDES BETWEEN
SELECTED GROUPS OF ELEMENTARY PUPILS IN THE SUMMER HILL
ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION
ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

BY
JOE NORWOOD WEEMS

SCHOOL OF EDUCATION

ATLANTA UNIVERSITY
ATLANTA, GEORGIA
AUGUST, 1965
DEDICATION

To

My Beloved Wife,
Wilhelmina H. Weems

My Daughters,
Annie Laurie Weems and Linda Florita Weems

My Son
Joe Norwood Weems, Jr.

My Mother
Mary J. Weems

For

Their encouragement, inspiration and devotion
throughout the period of my graduate study.

J. N. W.
ACKNOWLEDGEMENTS

The researcher wishes to express his appreciation and thanks to all who contributed to the successful completion of this research. He especially wishes to express his profound gratitude and sincere appreciation to the following persons:

The forty-six-grade pupils of this study of the Summer Hill Elementary School, Cartersville, Georgia; Mr. J. S. Morgan, Jr., principal of the Summer Hill School for his advice and encouragement; to superintendent, Dr. E. C. Martin, for encouragement; and, to my advisor, Dr. Laurence E. Boyd, professor, School of Education, Atlanta University, Atlanta, Georgia; and to Dr. Edward Weaver, my co-advisor, respectfully for his interest and genuine guidance throughout this period of research and to my dear wife, who, through constant encouragement and understanding, made the task of completing this study possible, and to all other individuals who contributed to the writing of this thesis.

J. N. W.
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CHAPTER I

INTRODUCTION

Rationale.—Where children can live, grow and learn happily together has become an important feature of the school health program.\(^1\) This applies both to the physical environment and to the organization of the school program, the classroom procedures, the attitudes of both the teaching and non-teaching personnel toward the pupils and toward one another, and other elements which play a part in conditioning the atmosphere of the school.

The crystalization of the health concept in the school program was verbalized when it was placed at the top of the list of the seven major objectives of education known as the Seven Cardinal Principles of Education. Twenty years later health was further emphasized by the Educational Policies Commission in its formulation of the Objectives of Self-Realization, and still more recently emphasized by its inclusion in the Georgia Curriculum Framework: A Guide to the Curriculum Offerings of the School.

Knowledge of the developmental needs of all children should center around the following practices, attitudes and behavior patterns: (1) relaxation, sleep and rest, (2) nutrition and growth,

\(^1\) Metropolitan Life Insurance Co., Health Bulletin for Teachers, XXIII (January, 1952), p. 11.
(3) fresh air and sunshine, (4) activity, (5) body and clothing, (6) posture, (7) safety, (8) control of infection, (9) importance and means of securing dental and medical attention, and (10) emotional and social adjustment. In the upper grades of the elementary school there is, in addition, the need to widen the horizons of the pupils by introducing them to health problems of the home, school and community.¹

In order to help pupils develop proper attitudes toward health services, it is necessary to consider all of their psychological structures, such as: needs, goals, motives, attitudes, past experiences and beliefs. To insure maximum and continued favorable reactions and practices, they must be relieved of as much fear and misgivings as possible.

Alfred North Whitehead, in the aims of education observed that: "You cannot educate in Vacuo. Education is essentially an order of a ferment already stirred in the mind."²

The fermentation or motivation must develop from internal tension. With this concept as a backdrop, the school health educator should be concerned with the existing health interest of the students; how far and how successful students have moved along the path of increased knowledge; what steps have been taken toward applying and integrating


their health knowledge into their practices and/or behavior, as well as aid them in acquiring proper attitudes. In other words, the school should provide the experiences and activities that will assist the students in acquiring knowledge and understanding, skill and abilities, and attitudes and appreciations which pertain to the patterns of health.

The evaluation of health instruction must be made in terms of the behavior and practices of students rather than knowledge alone because it is the translation of knowledge into action that is important. Consequently, an essential part of evaluation of the program is the determination of the extent to which changes have been exemplified by the health practices of the students.

The trend in health teaching has shifted from the inculcation of health habits toward the development of thinking behavior in health; therefore, the school must continue its two-fold appraisal process. First, it checks the quality and scope of the program; and secondly, it is essential to measure changes that take place in health knowledge, attitudes, and practices of students as far as it is possible, as a result of the program.

Evolution of the problem.—The writer was stimulated to conduct this study as a result of having participated in the 1959 Summer School Health Workshop at Atlanta University.

Contribution to educational knowledge.—It is hoped that the findings of this study will provide information which will serve as a basis for improving health programs or reorganizing the school.
curriculum to meet the health needs of the total school population.

**Statement of the problem.**—The major problem involved in this study was to identify and determine the significant differences, if any, on the variables of health assets, health liabilities, health knowledge, health attitudes and health practices between the boys and girls of the sixth grade of the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

**Limitations and scope of the study.**—This study was limited to the Summer Hill Elementary School, Bartow County, Cartersville, Georgia. The subjects involved two groups of elementary school pupils, that is, Section A and Section B of the Sixth grade class enrolled in the Summer Hill Elementary School during the school term 1963-1964.

The basic limitation of this proposed research inheres in the fact that the data and the interpretation thereof was based on test scores; and the research was not concerned with exploring any of the causative factors associated with the observed degree of effectiveness of health instruction.

**Purpose of the study.**—The major purpose of this study was two-fold: (a) to identify the factors in the health status and health knowledge and practice; and (b) to ascertain the statistical differences, if any, on selected variables of health status and health knowledge for sixth grade boys as compared to sixth grade girls in the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

More specifically, the purposes of this study were to determine:

1. Measures of central tendency and variability on the
variables of assets, liabilities, knowledge, practices, status as measured by the Mental Health Analysis and the Health Behavior Inventory.

2. The significant difference, if any, in mental health assets between the boys and girls of the sixth grade.

3. The significant difference, if any, in mental health liabilities between the boys and girls of the sixth grade.

4. The significant difference, if any, in health practices between the boys and girls of the sixth grade.

5. The significant difference, if any, in health knowledge between the boys and girls of the sixth grade.

6. The implications, if any, for educational theory and practice as may be derived from the interpretation of data.

Definition of terms.—The significant terms used throughout this study are defined below:

1. "Health" refers to that state in which the individual is able to mobilize all his resources - intellectual, emotional and physical for optimum daily living.¹

2. "Health Education" refers to the translation of what is known about health into desirable individual and community behavior patterns by means of the educational process.²

3. "School Health Program" refers to the school procedures that contribute to the understanding, maintenance and improvement of health of pupils and school personnel including health services, health education and healthful school living.³

4. "Knowledge" refers to collective facts, information, understanding, know-how and experiences in general whether obtained

directly, or vicariously, as through a class discussion or through reading a book. It is also meant to include those items of learning by which the student learns what to do in a given situation and enough about why it is done to make the procedures meaningful insofar as he is able to understand it.\(^\text{1}\)

5. "Practices" refer to the actual performance or application of knowledge, conduct and responses. Practices are habitually engaged in, and often, repeated.\(^\text{2}\)

6. "Attitude" refers to an enduring, learned predisposition to behave in a consistent way toward a given class of objects; a persistent mental and/or neural state of readiness to react to a certain object or class of objects, not as they are but as they are conceived to be.\(^\text{3}\)

Locale of the study.—The gathering of the data necessary for the development of this study was done in the Summer Hill Elementary School, Cartersville, Georgia, during the 1963-1964 year.

Cartersville, the county seat of Bartow County, is in the south central part of the county. This 5.7 square-mile city, the largest in the county, is estimated at this time to have a population of approximately 10,000 people. The 1950 census shown as official population of 8,668, but since that census was taken, the city limits have been extended several miles. Atlanta is 40 miles southeast and Chattanooga is 80 miles northwest of the city. The county is essentially a mining and milling town. Bartow County excels in the mining of Barytes,

---

\(^{1}\) H. F. Kilander, "Testing Health Information for Students and Adults," Journal of School Health (January, 1954), presented before the American School Health Association (November 9, 1953), reprint.


Ochre, Lime Manganese Ore, Calcium, Carbonate, clays and rock for highway construction and for concrete structures. Agriculture is the third main occupation of the county.\(^1\)

According to the 1960 census report of the Junior Chamber of Commerce of Cartersville, the city's population is 10,000 with 80 per cent of the population being whites and 19 per cent being Negroes.\(^2\)

Cartersville is served by two railroads providing service to the north, south and west. The Louisville & Nashville Railroad provides mainline service between Atlanta, Nashville and Cincinnati. This railroad offers four to five day carload service to New York, Detroit and Chicago. The Seaboard Air Line Railroad operates a branch line from Cartersville to Rockmart, 20 miles to the southeast where it connects with their main line route between Bessemer, Alabama and Wilmington, North Carolina, via Atlanta. Cartersville is also served by two branches of the Southeastern Greyhound Bus Company.\(^3\)

Most of the Negro men are employed in the mines and mills while many of the Negro women are employed in private homes as cooks, maids and laundresses. A few Negroes are employed at the Lockheed Aircraft Plant near Marietta, Georgia.

There are few skilled Negro laborers in Bartow County such as carpenters and brick masons and there is only one Negro electrician.

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\(^1\) Junior Chamber of Commerce, Information and Facts about Cartersville, Georgia, Annual Report, 1960, p. 34.

\(^2\) Ibid., p. 36.

\(^3\) Ibid., p. 15.
There are 16 protestant churches of five denominations and one Catholic church in the community. Seven of these churches are Negro Protestant churches of two denominations: Baptist and Methodist.

Thirteen new industries have been added to the Cartersville area in the past five years. Cartersville manufactures produce, a variety of products ranging from carpets, under-garments, deodorants, chemicals, tire cord, bedspreads, feeds, foundry products, concrete products and mineral extenders and fillers.

Industrial establishments are limited in this area. Ministers, teachers, beauticians, barbers, carpenters and morticians represent the major professions in which Negroes are found working.

Cartersville, is on U. S. Highway 41, the north-south route between Chattanooga and Atlanta. U. S. Highway 41 is a direct route north to Knoxville and West via Rome into Alabama. Five Georgia highways provide the city with an excellent network of roads to all parts of the Coosa Valley and other northern areas of the state. Federal Interstate Highway 75, now under construction, is planned to pass east of Cartersville.

Air transportation is available at either Russell Field at Rome or the Atlanta Municipal Airport. Russell Field offers two arrivals and two departures daily by Eastern Air Lines, Inc. The Atlanta Municipal Airport is served by six commercial air lines which have a total of over 370 daily flights. A cargo freight carrier also serves the Atlanta Airport and complete service is available for interrine air traffic.

Western Union Telegraphy Company has an office in downtown
Cartersville. The Daily Tribune News, published five days a week, has a circulation of 4,000. There is also a Weekly Tribune News and a Weekly Bartow Herald.

The city of Cartersville has an independent school system. There is a total of 4 elementary, 1 junior high and 2 high schools. Vocational training is provided in industrial arts, mechanical drawing, home economics and commercial subjects. The city has a full-time recreation staff to administer a year-round recreational program. Recreational activities center around city owned playgrounds, swimming pool and tennis courts.

Period of study.—This study was conducted during the first and second semester of the 1963-1964 school year with the testing program carried out during the first semester.

Method of research.—The Descriptive-Survey Method of research, utilizing standardized test and statistical analysis, was used to collect and interpret the data required to fulfill the purpose of the study.

Description of Subjects.—The subjects involved in this study were twenty (20) boys and twenty (20) girls of the sixth-grade pupils in the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

Description of instruments.—The instruments used to study the twenty boys and twenty girls of the sixth-grade class of the Summer Hill Elementary School, Cartersville, Georgia were: (a) Mental Health Analysis and (b) The Health Behavior Inventory.

The Mental Health Analysis$^1$ was devised by Louis P. Thorpe and

$^1$Louis P. Thorpe, Willis W. Clark and Earnest W. Tiegs, Mental Health Analysis (Los Angeles: California Test Bureau).
Willis W. Clark. 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.

As a general interpretive guide, high scores on the Assets components signify the presence of these qualities to a high degree while high scores on the Liabilities components imply an absence of or "freedom from" Liabilities. On the other hand, low scores on Assets denote a lack of these desirable qualities in varying degrees while low scores on Liabilities indicate the presence of the latter qualities. Thus, both categories are scaled in the same direction and are interpreted in the conventional manner with high scores on both categories being preferable to low scores.

**Assets:** 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.

1. Close Personal Relationships
2. Inter-Personal Skills
3. Social Participation
4. Satisfying Work and Recreation
5. Adequate Outlook and Goals

**Liabilities:** 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.

1. Behavioral Immaturity
2. Emotional Instability
3. Feelings of Inadequacy
4. Physical Defects
5. Nervous Manifestations

The Health Behavior Inventory\textsuperscript{1} was devised by Albert D. Colebank, Harold Le Maistre, Marion B. Pollock, and Sylvia Yellen. The Health Behavior Inventory, Elementary Level, is designed to measure only what the pupil does, rather than what he may have heard or learned; i.e., his daily health habits and routine.

The Inventory is composed of 40 picture-questions, each with three answer choices. The illustrated questions depict children practicing health habits in an environmental setting. The pupil answers the questions according to his own actual practice, not what he thinks is right or wrong, or what he thinks he should do.

Content areas of the Inventory include Personal Health, Personal Cleanliness, Nutrition, Safety, Community Health, Infection and Disease, Mental Health and Dental Health.

Research procedures.--The procedural steps used in the conduct of this research are outlined below.

1. The related literature pertinent to this problem was

\textsuperscript{1}Sylvia Yellens and Edward B. Johns, Health Behavior Inventory (Los Angeles: California Test Bureau).
reviewed, summarized and presented in the final thesis copy.

2. Permission to gather with cooperation to conduct this research was secured from the proper school authorities and workers.

3. The forty (40) pupils who were subjects of this study were secured from the official attendance records of the school.

4. The two tests: (1) The Mental Health Analysis and (2) The Health Behavior Inventory were administered to the 40 sixth-grade pupils in the Summer Hill Elementary School.

5. The data derived from the school records and the standardized tests were tabulated, assembled in appropriate tables as indicated by the purposes of the study.

6. The statistical analysis and interpretation were based upon the computation and use of such statistics as: Mean, Median, Standard Deviation, Standard Error of Mean, Standard Error of the Difference between the two means, and Fisher's "t" of 2.58 at .01 and 38 degrees of freedom.

The findings, conclusions, implications and recommendations were formulated and incorporated in Chapter III of the thesis copy.

Collection of data.—The data for this research were secured through administering two different tests: (a) Mental Health Analysis and (b) the Health Behavior Inventory to the pupils in grade six who were enrolled in the Summer Hill Elementary School, Cartersville, Georgia, during the first and second semester of the school year 1963-1964. Two days were given to the administration of the test. The tests were scored by the researcher, the results were set up into tables and treated statistically as indicated by the purposes of this research.

Survey of related literature.—A survey of the related literature reveals that many people and organizations have given an enormous amount of time and work to the development of our modern health program.
Farther, it reveals that there is still a great need for research in the field of health education. Specifically, the need for a more accurate and precise instrument for the evaluation of interest, attitudes and practices. The literature for this study will be presented under three (3) captions, namely: (a) historical, (b) theoretical and (c) research.

The first public schools in America did not have a health program. The word "Health" was an individual family responsibility. There are only a few evidences of any school being concerned for the health and physical welfare of the children before 1880.

Today, many of our school health activities originated in foreign countries. Some of the countries leading the way to better health were: Sweden, Germany, Russia and Belgium.

During the year 1842, Horace Mann, a leading educator, suggested that health should be placed in the schools but it was 1880 before any of his suggestions began to be placed into operation.

From 1880 to 1890, every state in the United States passed laws requiring instruction concerning the effects of alcohol and narcotics. From 1890 to 1900, physical education became a required subject in all common schools. The requirement of medical inspection and formal installation of school lunches all appeared during the period 1900-1910.

During the first World War, America was made conscious of the health conditions of the country as a result of a nation-wide health survey. The modern health program made most of its progress since that time, 1917. The program was developed mainly through the following organizations: World Health Organization, The Child Health Organization
of America, National Educational and Medical Associations, along with
governmental agencies, colleges, universities and the common school.

Theoretical literature.—The school, drawing its life from the
will of the people is morally obligated to make constructive contri-
butions to the health of the nation by providing experiences and activ-
ities that will: (1) improve present health practices which will in
turn, result in an improvement of the over-all health status, (2)
promote understanding, attitudes, behavior which will help to improve
home and community health, (3) develop a healthier nation and world
with each generation.

The school's responsibility was recognized and emphasized by
educators as revealed in these statements:

Lee and Lee state that:

One of the greatest contributions the school can make
to a child is to promote his present health and send him out
with proper habits and attitudes for protecting and main-
ing that health for the rest of his life.1

Bernice Moss emphasizes:

Health education must develop attitudes and understand-
ing which will influence behavior. The ultimate evaluation
of any health education program is in terms of healthier
people.2

At the beginning of the 20th century the instructional program
emphasized the inculcating of health habits. During the thirties and

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1 Murray J. Lee and Dorris May Lee, The Child and His Curriculum
2 Bernice Moss, "Guidepost for Evaluating Health Classes,
   Journal of Health, Physical Education and Recreation, XVIII (January,
until the present, the stress has shifted toward the development of thinking behavior in health. Authorities in the field of education feel that practices must evolve from reasoning as related to a principle rather than from habit with little or no meaning.

To stay abreast of the trend in education the school must continue to analyze, act and plan because constant study and change is a part of a progressive school health program.

The school health program is one of the basic needs of mankind. It can furnish the background for improving habits, changing attitudes and increasing knowledge.

"The man with facts that has not placed them in useful theory or framework is a shallow man, as Robert Lynd stated in Knowledge for What.\textsuperscript{1} Therefore, evaluation should be made in terms of behavior and practice rather than knowledge alone, because it is the translation of knowledge into action that is important. Consequently, an essential part of evaluation is the determination of the extent to which changes have been exemplified by the health practices of the students.

These concepts can be summarized from significant excerpts of the theoretical literature on health education below.

H. F. Kilander states that health habits are strengthened by continuous application.\textsuperscript{2}

\textsuperscript{1} Knutson, op. cit.
The co-authors of *Health Education* emphasize that an active curriculum development is promoted to the extent that new standards and techniques are used. Evaluation and curriculum development mutually support and modify one another: a change in one should and usually does stimulate a change in the other. Evaluation is essential for determining progress and for helping to point the way for future improvement.¹

Turner states that whatever educational objectives we may accept, we must recognize that health maintenance aids the individual in his progress toward them.²

Turner states that the significant emphasis of the modern school health program has been upon improving health practices of pupils.³

Ruth Grout states that health teaching is successful to the extent that it helps to bring about behavior changes in those for whom it is intended.⁴

Ruth Grout further says that the teacher who is alert to changing conditions, sensitive to children's needs and interest, and trained in teaching health principles and practices can contribute to both school

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Research literature.—Documentation in health research is more evident in conferences, committee reports, statements of inter-professional groups and individual health leaders rather than in definitive research. Research is comparatively new in this field. However, some of the leading researchers in this field are, K. F. Kilander, Wesley Cushman, Bruce Bennett and Delbert Oberateuffer, all studying and suggesting ways to evaluate school health programs in order to determine the effectiveness of present procedures and practices, and to delineate the strengths and weaknesses of them — thus providing the basis for a more meaningful and vital health program.

Over twenty-five (25) years have been spent developing suitable methods for discovering interest and measuring practices, attitudes and knowledge. However, the results of instruction is not difficult to measure when knowledge is the only outcome sought. The problem arises when the major aim is to improve attitudes and behavior which are most difficult to measure.

Wholesome health attitudes are the outcomes that every teacher would like to see resulting in his teaching. "They are the spark plugs to action in the field of education."²

The main reason the measuring of interest and attitudes is a

1. Ibid., p. 1.
perplexing problem is that one has to depend much upon subjective evidences as shown through interviews, observations and pupils' diaries. Attitudes in the sense of an opinion may be studied by check lists and questionnaires. Others believe that some indication of attitudes may be obtained from reactions of pupils toward health subjects and health behavior, on the other hand, C. L. Anderson makes this observation in School Health Practice:

Attitudes are abstract and intangible and is not readily amenable to precise measurement. To distinguish between the testee's attitudes and his knowledge of what response society approves still calls for a solution. The line between traits and attitudes poses an additional problem. Opinions are a means by which attitudes are measured. How reliable is an opinion?1

Some studies further indicated that our curriculum needs revising and re-examination. Additional research relating to the evolution of the school health program is needed. The results of some of the surveys show that the health education requirements are inadequate and the personnel is poorly prepared. A survey showed that we had four million excessive drinkers in America. Another showed that of all the college drinkers, 4/5 boys and 2/3 girls started drinking in high school.

Researchers know that the measuring tools for health are not exact and precise; therefore, time and effort are being placed upon developing methods for measuring the pupil's knowledge, interest, behavior and attitudes. Some of the test or commercial tools that

have been used relatively successfully are:

1. Kilander Health Knowledge Test
2. Byrd's Health Attitude Scale
3. Mooney's Checklist
4. Cushman and Bennett Health Problem Checklist
6. John's Health Practice Inventory

The appraisal of school health education is a continuous and never ending process. Health educators believe that testing is not the end of health education, it is just a record of the past that should guide the way of the future.

Summary of related literature.--The summary of the survey of the related literature pertinent to the problem of this research which dealt with the knowledge, practices and attitudes of the sixth-grade pupils led to the selection and generalization of the more significant and abstracted statements below.

1. The American Association of School Administrators states that educational growth of children to fullest potential cannot be achieved unless every aspect of the physical environment is so controlled that it contributes to the comfort and health of the pupils and professional staff.

2. Lee and Lee, in the Child and His Curriculum, state that one of the greatest contributions the school can make to a child is to promote his present health and send him out with proper habits and attitudes for protecting and maintaining that health for the rest of his life.

3. Bernice Moss states that health education must develop attitudes and understanding which will influence behavior, the ultimate evaluation of any health education program is in terms of healthier people.

4. H. F. Kilander states that health habits are strengthened
by continuous application.

5. The co-authors of Health Education emphasize that an active curriculum development is promoted to the extent that new standards and techniques are used. Evaluation is essential for determining progress and for helping to point the way for further improvement.

6. Turner states that whatever educational objectives we may accept, we must recognize that health maintenance aids to the individual in his progress toward them.

7. Turner states that the significant emphasis of the modern school health program has been upon improving health practices of the pupils.

8. Ruth Grout states that teaching is successful to the extent that it helps to bring about behavior changes from whom it is extended.

9. Ruth Grout further states that the teacher who is alert to changing conditions, sensitive to children's needs and interests and trained in teaching health principles and practices can contribute to both school and community life.

10. C. L. Anderson states in School Health Practices that attitudes are abstract and intangible and are not readily amenable to precise measurement. To distinguish between the testee's attitude and his knowledge to what response society approves still calls for a solution. The line between traits and attitudes poses an additional problem. Opinions are a means by which attitudes are measured, but opinions are not always reliable.
CHAPTER II

PRESENTATION AND ANALYSIS OF DATA

Organization and Treatment of the data.--This study was designed to determine the difference, if any, on the variables of the Mental Health Analysis and the Health Behavior Inventory between the boys and girls of the sixth grade of the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

In order to fulfill more adequately the purposes of the research, two separate tests were administered to the forty boys and girls of the sixth grade class, to wit: (a) The Mental Health Analysis, (b) The Health Behavior Inventory.

The presentation of the data is organized around a series of basic tables:

1. There are 11 tables which will present frequency distribution of the raw scores of the forty boys and girls each of the variables of the test as used in this study. The tables will give the basic statistics in regards to measure of central tendency and variability.

2. There are 11 tables which will present the significant differences of the forty boys and girls of the sixth grade class comprising the total group of subjects under study, together with Fisher's "t" ratios derived from each comparison.
3. The criterion of reliability for significant difference was established with reference to Fisher's "t" of 2.58 at the one per cent level of confidence.

Results on the Mental Health Analysis Test (Total Assets).—The data on the assets component of the Mental Health Analysis Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 1 and 2, page 23, and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 29 to a high of 61, with a mean of 49.5, a median of 50.5, a standard deviation of 8.43, and a standard error of the mean of 1.88. Eleven or 55 per cent scored above the mean, 8 or 14.0 per cent scored below the mean, and 1 or 5 per cent scored within the mean class-interval. The mean score of 49.5 indicated a percentile index of 5 which was 45 points below the norm of expectancy in the area of total mental health.

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 35 to a high of 73, with a mean of 51.15, a median of 51.5, a standard deviation of 9.54, and a standard error of the mean of 2.13. Nine or 45 per cent scored above the mean, 8 or 40 per cent scored below the mean and 3 or 15 per cent scored within the mean class-interval. The mean score of 51.5 indicated a percentile index of 7 which was 43 points below the norm of expectancy in the area of total mental health.

The "t" ratio of comparative data.—Table 2, page 23, shows that the comparative measures for the two groups were as follows: the mean was 49.5 and 51.15 for the boys and girls, respectively, with a
TABLE 1


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
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<tbody>
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<td>71-73</td>
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<td>5</td>
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<td>68-70</td>
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<td>65-67</td>
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<td>0</td>
</tr>
<tr>
<td>62-64</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>59-61</td>
<td>3</td>
<td>15</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>56-58</td>
<td>5</td>
<td>25</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>53-55</td>
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<td>5</td>
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<td>5</td>
</tr>
<tr>
<td>44-46</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>41-43</td>
<td>3</td>
<td>15</td>
<td>4</td>
<td>20</td>
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<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35-37</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>32-34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>29-31</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Mean: 49.5
Median: 50.5
Sigma: 8.43
S. E. m: 1.88
% Tile: 5

TABLE 2


<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S.E.</th>
<th>M1-M2</th>
<th>S.E.</th>
<th>t^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>50.5</td>
<td>49.5</td>
<td>8.43</td>
<td>1.88</td>
<td>1.65</td>
<td>2.83</td>
<td>.54</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>51.5</td>
<td>51.15</td>
<td>9.54</td>
<td>2.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
difference of 1.65 in favor of the girls group; the median was 50.5 and 51.5 for the boys and girls, respectively, with a difference of 1 in favor of the girls group; the standard deviation was 9.54 and 8.43 for the boys and girls, respectively, with a difference of 1.11 in favor of the girls group. The standard error of the mean was 2.13 and 1.88 for the boys and girls group, respectively, with a difference of .25 in favor of the girls group. The standard error of the difference between the two means was 2.83.

The "t" for these data was .54 which was not significant for it was less than 2.58 at the one (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the total component of the Mental Health Analysis was not significant for these two groups of pupils.

Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 5 and 7 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their health status as measured by the Mental Health Analysis.

Results on the Mental Health Analysis Test (Total Liabilities).—The data on the liabilities component of the Mental Health Analysis Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 3 and 4, pages 25 and 26, respectively; and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 26 to a high of 64, with a mean of 39.75, a median of 38.25,
TABLE 3

DISTRIBUTION OF THE RAW SCORES ON THE MENTAL HEALTH ANALYSIS TEST (TOTAL LIABILITIES) OBTAINED BY THE TWENTY BOYS AND TWENTY GIRLS OF THE SIX GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Score</th>
<th>Number Boys</th>
<th>Per Cent Boys</th>
<th>Number Girls</th>
<th>Per Cent Girls</th>
</tr>
</thead>
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<tr>
<td>68-70</td>
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<td>5</td>
</tr>
<tr>
<td>65-67</td>
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<td><strong>100</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Sigma</th>
<th>S. E. m</th>
<th>% tile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>39.75</td>
<td>38.25</td>
<td>8.97</td>
<td>2.00</td>
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</tr>
<tr>
<td>Girls</td>
<td>42.0</td>
<td>41.4</td>
<td>8.7</td>
<td>1.94</td>
<td>7</td>
</tr>
</tbody>
</table>

a standard deviation 8.97, and a standard error of the mean of 2.00.
Seven or 35 per cent scored above the mean, 9 or 45 per cent scored below the mean, and four or 20 per cent within the mean class-interval.
The mean score of 39.75 indicated a percentile index of 5 which was 45 points below the norm of expectancy in the area of total mental health.

Girls - For the twenty sixth-grade girls, the scores ranged from
TABLE 4

SIGNIFICANT DIFFERENCES ON THE MENTAL HEALTH ANALYSIS TEST (LIABILITIES) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E.</th>
<th>Mean</th>
<th>M_1-M_2</th>
<th>M_1-M_2</th>
<th>t_df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>38.25</td>
<td>39.75</td>
<td>8.97</td>
<td></td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and</td>
<td></td>
<td></td>
<td>2.25</td>
<td>2.75</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>41.4</td>
<td>42.0</td>
<td>8.7</td>
<td>1.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A low of 26 to a high of 70 with a mean of 42.0, a median of 41.4, a standard deviation of 8.7 and a standard error of the mean of 1.94. Five or 25 per cent scored above the mean, 8 or 40 per cent scored below the mean and 7 or 35 per cent scored within the mean class-interval. The mean score of 42.0 indicated a percentile index of 7 which was 1.3 points below norm of expectancy in the area of total mental health.

The "t" ratio of comparative data.---Table 4 shows the comparative measures for the two groups were as follows: the mean was 39.75 and 42.0 for the boys and girls, respectively, with a difference of 2.25 in favor of the girls group; the median was 38.25 and 41.4 for the boys and girls, respectively, with a difference of 3.15 in favor of the girls group; the standard deviation was 8.97 and 8.7 for the boys and girls, respectively, with a difference of .27 in favor of the boys group; and the standard error of the mean was 2.00 and 1.94 for the boys and girls group, respectively, with a difference of .06 in
favor of the girls group. The standard error of the difference between the two means was 2.25.

The "t" for these data was .82 which was not significant for it was less than 2.58 at the one (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the (total) component of the Mental Health Analysis was not significant for these two groups of pupils.

Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 5 and 7, for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their health status as measured by the Mental Health Analysis Test.

Results on the Mental Health Analysis Test (Total).—The data on the total component of the Mental Health Analysis Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 5 and 6, pages 28 and 29, respectively and are analyzed in the separate paragraphs below.

Boys — For the twenty sixth-grade boys, the scores ranged from a low of 26 to a high of 58, with a mean of 41.85, a median of 41.25, a standard deviation of 7.77 and a standard error of the mean of 1.73. Seven or 35 per cent scored above the mean, 9 or 45 per cent scored below the mean, and 4 or 20 per cent scored within the mean class-interval. The mean score of 41.85 indicated a percentile index of 1 which was 49 points below the norm of expectancy in the area of total mental health.
TABLE 5


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Per Cent</th>
<th>Girls Number</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-73</td>
<td>0</td>
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<td>1</td>
<td>5</td>
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<tr>
<td>68-70</td>
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<td>65-67</td>
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<td>30</td>
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<td>44-46</td>
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<td>1</td>
<td>5</td>
</tr>
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<td>41-43</td>
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<td>15</td>
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<td>38-40</td>
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<td>3</td>
<td>15</td>
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</tr>
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<td>32-34</td>
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<td>5</td>
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<td>0</td>
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<td>29-31</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

| Mean  | 44.85       | Mean  | 44.1        |
| Sigma | 4.25        | Sigma | 8.31        |
| S. E. m | 1.73     | S. E. m | 1.88        |
| % - tile | 1       | % - tile | 1          |

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 35 to a high of 73 with a mean of 44.1, a median of 42.5, a standard deviation of 8.31 and a standard error of the mean of 1.88. Eight or 40 per cent scored above the mean, 11 or 55 per cent scored below the mean and 1 or 5 per cent scored within the mean class-interval.
TABLE 6

SIGNIFICANT DIFFERENCES ON THE MENTAL HEALTH ANALYSIS TEST (TOTAL)
BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE
PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE,
GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E. M₁-M₂</th>
<th>S. E. M₁-M₂</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>41.25</td>
<td>41.85</td>
<td>7.77</td>
<td>1.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.25</td>
<td>2.55</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>42.5</td>
<td>44.1</td>
<td>8.31</td>
<td>1.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean score of 44.1 indicated a percentile index of 1 which was 49 points below the norm of expectancy in the area of total mental health.

The "t" ratio of Comparative data.--Table 6 shows the comparative measures for the two groups were as follows: the mean was 41.85 and 44.1 for the boys and girls, respectively, with a difference of 2.25 in favor of the girls group; the median was 41.25 and 42.5 for the boys and girls, respectively, with a difference of 1.25 in favor of the girls group; the standard deviation was 7.77 and 8.31 for the boys and girls, respectively, with a difference of .54 in favor of the girls group; and the standard error of the mean was 1.73 and 1.88 for the boys and girls group, respectively, with a difference of .15 in favor of the girls group. The standard error of the difference between the two means was 2.55.

The "t" for these data was .88 which was not significant for it was less than 2.58 at the one (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the (total) component...
of the Mental Health Analysis was not significant for these two groups of pupils.

**Interpretation.**—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 1 and 1 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their health status as measured by the Mental Health Analysis.

Further, because of the absence of rigid and controls of the groups, the question still remains as to what extent the factors of socio-economic status and school experiences could or did significantly alter the observed health status of these sixth-grade boys and girls. However, it is apparent from the test results to what extent there was a difference in performance in observed health status of these pupils from variable to variable on the Mental Health Analysis used in this study.

More significantly, perhaps, there remains the question as to what extent the socio-economic background and the school experiences between the two groups would or did significantly affect the level of observable and measured the Mental Health Status of the boys and girls who were the subjects of this research.

**Results on the Health Behavior Inventory Test (Personal Health).**—The data on the Personal Health Component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 7 and 8, pages 31 and 32, respectively and are analyzed in the separate paragraphs below.
TABLE 7


<table>
<thead>
<tr>
<th>Scores</th>
<th>Boys</th>
<th>Girls</th>
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</thead>
<tbody>
<tr>
<td>80-81</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>75-79</td>
<td>0</td>
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<td>70-74</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>65-69</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60-64</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>55-59</td>
<td>8</td>
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</tr>
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<td>35-39</td>
<td>1</td>
<td>4</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>20</th>
<th>20</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Boys</th>
<th>Per Cent</th>
<th>Girls</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>64.0</th>
<th>Mean</th>
<th>59.25</th>
</tr>
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<tbody>
<tr>
<td>Median</td>
<td>59.5</td>
<td>Median</td>
<td>58.5</td>
</tr>
<tr>
<td>Sigma</td>
<td>12.15</td>
<td>Sigma</td>
<td>15.0</td>
</tr>
<tr>
<td>S. E. m</td>
<td>2.71</td>
<td>S. E. m</td>
<td>3.35</td>
</tr>
<tr>
<td>% -tile</td>
<td>30</td>
<td>% - tile</td>
<td>29</td>
</tr>
</tbody>
</table>

Boys - For the twenty sixth-grade boys, the score ranged from a low of 35 to a high of 84, with a mean of 64.0, a median of 59.5, a standard deviation of 12.15 and a standard error of the mean of 2.71. Eight or 40 per cent scored above the mean, 10 or 50 per cent scored below the mean and 2 or 10 per cent scored within the mean class-interval. The mean score of 64.0 indicated a percentile index of 30 which was 20 points below the norm of expectancy in the area of Personal Health.
TABLE 8

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST
(PERSONAL HEALTH) BETWEEN THE TWENTY BOYS AND TWENTY
GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER
HILL ELEMENTARY SCHOOL, CARTERSVILLE,
GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E.</th>
<th>M - M₂</th>
<th>M - M₂</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>59.5</td>
<td>64.0</td>
<td>12.15</td>
<td>2.71</td>
<td>1.0</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>58.5</td>
<td>59.25</td>
<td>15.0</td>
<td>3.35</td>
<td>4.75</td>
<td>4.4</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 35 to a high of 81+, with a mean of 59.25, a median of 58.5, a standard deviation of 15.0 and a standard error of the mean of 3.35. Nine or 45 per cent scored above the mean, 6 or 30 per cent scored below the mean and 5 or 25 per cent scored within the mean class-interval. The mean score of 59.25 indicated a percentile index of 29 which was 21 points below the norm of expectancy in the area of Personal Health.

The "t" ratio of comparative data.--Table 8 shows the comparative measures for the two groups were as follows: the mean was 64.0 and 59.25 for the boys and girls, respectively, with a difference of 4.75 in favor of the boys group; the median was 59.5 and 58.5 for the boys and girls, respectively, with a difference of 1.0 in favor of the boys group; the standard deviation was 12.15 and 15.0 for the boys and girls, respectively, with a difference of 2.85 in favor of the girls group;
and the standard error of the mean was 2.71 and 3.35 for the boys and girls group, respectively, with a difference of .64 in favor of the girls group. The standard error of the difference between the two means was 4.75.

The "t" for these data was 1.1 which was not significant for it was less than 2.58 at the one (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the personal health component of the Health Behavior Inventory was not significant for these two groups of pupils.

**Interpretation.**—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 30 and 29 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their personal health status as measured by the Health Behavior Inventory.

**Results on the Health Behavior Inventory Test (Personal Cleanliness).**—The data on the personal cleanliness component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 9 and 10, pages 34 and 35, respectively and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 4 to a high of 89 with a mean of 51.25, a median of 55.20, a standard deviation of 14.70 and a standard error of the mean of 4.42. Ten or 50 per cent scored above the mean, 8 or 40 per cent scored below the mean and 7 or 35 per cent scored within the mean
TABLE 9


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
</thead>
<tbody>
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<td>100-101</td>
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<td>2</td>
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<tr>
<td>95-99</td>
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<td>85-89</td>
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<td>3</td>
<td>15</td>
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<tr>
<td>80-84</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>75-79</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>70-74</td>
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<td>7</td>
<td>35</td>
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<td>0</td>
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<td>60-64</td>
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<td>0</td>
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<td>55-59</td>
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<td>30</td>
</tr>
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<td>50-54</td>
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<td>35</td>
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<td>45-49</td>
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</table>

Totals 20 100 20 100

Mean 51.25  Mean 69.0
Median 55.20  Median 70.90
Sigma 14.70  Sigma 18.10
S. E. m ^4.42  S. E. m 4.04
% - tile 22  % - tile 34

class-interval. The mean score of 51.25 indicated a percentile index of 22, which was 28 points below the norm of expectancy in the area of personal cleanliness.
TABLE 10

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (PERSONAL CLEANLINESS) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E.</th>
<th>M1-M2</th>
<th>S. E.</th>
<th>M1-M2</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>55.20</td>
<td>51.25</td>
<td>14.70</td>
<td>4.42</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Girls</td>
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<td>69.0</td>
<td>18.10</td>
<td>4.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 25 to a high of 104 with a mean of 69.0, a median of 70.90, a standard deviation of 18.10 and a standard error of the mean of 4.04. Twelve or 60 per cent scored above the mean, 8 or 40 per cent scored below the mean, and none or 0 per cent scored within the mean class-interval. The mean score of 69.0 indicated a percentile index of 34 which was 16 points below the norm of expectancy in the area of personal cleanliness.

The "t" ratio of comparative data.——Table 10 shows the comparative measures for the two groups were as follows: the mean was 51.25 and 69.0 for the boys and girls, respectively, with a difference of 18.25 in favor of the girls group; the median was 55.20 and 70.90 for the boys and girls, respectively, with a difference of 15.70 in favor of the girls group; the standard deviation was 14.70 and 18.10 for the boys and girls, respectively, with a difference of 3.40 in favor of
the girls group; and the standard error of the mean was 4.42 and 4.04 for the boys and girls group, respectively, with a difference of .38 in favor of the boys group. The standard error of the difference between the two means was 18.25.

The $t$ for these data was 2.95 which was significant for it was greater than 2.58 at the 1% ($01$) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the personal cleanliness component of the Health Behavior Inventory was significant for these two groups of pupils.

**Interpretation.**—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 22 and 34 for the boys and girls group, respectively, was also an indication that the boys and girls were at or below or above the norm of expectancy in their personal cleanliness status as measured by the Health Behavior Inventory.

**Results on the Health Behavior Inventory Test (Nutrition).**—The data on the nutrition component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 11 and 12, pages 37 and 38, respectively; and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys the scores ranged from a low of 4 to a high of 74 with a mean of 42.25, a median of 42.80, a standard deviation of 18.95 and a standard error of the mean of 4.23. Eight or 40 per cent scored above the mean 6 or 36 per cent scored below the mean and six or 30 per cent scored within the mean class-interval.
TABLE 11


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
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<td>85-89</td>
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<tr>
<td>40-44</td>
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<td>30</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>35-39</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30-34</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>25-29</td>
<td>3</td>
<td>15</td>
<td>2</td>
<td>10</td>
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</tr>
<tr>
<td>15-19</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-14</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>5-9</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>0-4</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Totals | 20 | 100 | 20 | 100 |

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th>Girls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>42.25</td>
<td>Mean</td>
<td>55.0</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>42.80</td>
<td>Median</td>
<td>58.25</td>
<td></td>
</tr>
<tr>
<td>Sigma</td>
<td>18.95</td>
<td>Sigma</td>
<td>23.25</td>
<td></td>
</tr>
<tr>
<td>S. E.</td>
<td>1.23</td>
<td>S. E.</td>
<td>5.20</td>
<td></td>
</tr>
<tr>
<td>% -tile</td>
<td>19</td>
<td>% - tile</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

The mean score of 42.25 indicated a percentile index of 19 which was 31 points below the norm of expectancy in the area of nutrition.

Girls - For the twenty sixth-grade girls, the scores ranged from
TABLE 12

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (NUTRITION) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S.E.</th>
<th>S.E. <em>M</em>—<em>M</em></th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>42.80</td>
<td>42.25</td>
<td>18.95</td>
<td>1.23</td>
<td>12.75</td>
<td>6.7</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>58.25</td>
<td>55.0</td>
<td>23.25</td>
<td>5.20</td>
<td>12.75</td>
<td>6.7</td>
</tr>
</tbody>
</table>

a low of 4 to a high of 89 with a mean of 55.0, a median of 58.25, a standard deviation of 23.25 and a standard error of the mean of 5.20. Nine or 45 per cent scored above the mean, 7 or 35 per cent scored below the mean and 4 or 20 per cent scored within the mean class-interval. The mean score of 35.0 indicated a percentile index of 27 which was 23 points below the norm of expectancy in the area of nutrition.

The "t" ratio of comparative data.—Table 12 shows the comparative measures for the two groups were as follows: the mean was 42.25 and 55.0 for the boys and girls, respectively, with a difference of 12.75 in favor of the girls group; the median was 42.80 and 58.25 for the boys and girls, respectively, with a difference of 15.45 in favor of the girls group; the standard deviation was 18.95 and 23.25 for the boys and girls, respectively, with a difference of 4.30 in favor of the girls group; and the standard error of the mean was 1.23 and 5.20 for the boys and girls group, respectively, with a difference of 1.97
in favor of the girls group. The standard error of the difference between the two means was 6.7.

The "t" for these data was 1.9 which was not significant for it was less than 2.58 at the 1 (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the nutrition component of the Health Behavior Inventory was not significant for these two groups of pupils.

Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 19 and 27 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their knowledge about and attitudes towards nutrition as measured by the Health Behavior Inventory.

Results on the Health Behavior Inventory Test (Safety).—The data on the safety component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 13 and 14, pages 40 and 41, respectively; and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys the scores ranged from a low of 9 to a high of 109 with a mean of 56.0, a median of 62.0, a standard deviation of 23.0 and a standard error of the mean of 5.14. Twelve or 60 per cent scored above the mean, 8 or 40 per cent scored below the mean, and none or 0 per cent scored within the mean class-interval. The mean score of 56.0 indicated a percentile index of 26 which was 24 points below the norm of expectancy in the area of safety.
### TABLE 13


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Per Cent</th>
<th>Girls Number</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-109</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>90-99</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>80-89</td>
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<td>15</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>70-79</td>
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<td>0</td>
</tr>
<tr>
<td>60-69</td>
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<td>40</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>50-59</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-49</td>
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<td>20-29</td>
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<td>10</td>
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<td>10-19</td>
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<tr>
<td>0-9</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>Boys 20</th>
<th>100</th>
<th>Girls 20</th>
<th>100</th>
</tr>
</thead>
</table>

| Mean | 56.0 | Mean | 60.0 |
| Median | 62.0 | Median | 61.77 |
| Sigma | 23.0 | Sigma | 18.85 |
| S. E. | 5.14 | S. E. | 4.21 |
| % - tile | 26 | % - tile | 28 |

Girls - For the twenty sixth-grade girls, the score ranged from a low of 20 to a high of 109, with a mean of 60.0, a median of 61.77, a standard deviation of 18.85 and a standard error of the mean of 4.21. Four or 20 per cent scored above the mean, 5 or 25 per cent scored below the mean and 11 or 55 per cent scored within the mean class-interval. The mean score of 60.0 indicated a percentile index of 28 which was 22 points below the norm of expectancy in the area of safety.
TABLE 14

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (SAFETY) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S.E. M - M'</th>
<th>S.E. M' - M''</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>62.0</td>
<td>56.0</td>
<td>23.0</td>
<td>5.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.77</td>
<td>6.6</td>
<td>.87</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>60.0</td>
<td>61.77</td>
<td>18.85</td>
<td>4.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The "t" ratio of comparative data.--Table 14 shows the comparative measures for the two groups were as follows: the mean was 56.0 and 60.0 for the boys and girls, respectively, with a difference of 5.77 in favor of the girls group. The median was 62.0 and 60.0 for the boys and girls, respectively, with a difference of 2 in favor of the boys group; the standard deviation was 23.0 and 18.85 for the boys and girls, respectively, with a difference of 4.15 in favor of the boys group; and the standard error of the mean was 5.14 and 4.21 for the boys and girls group, respectively, with a difference of .93 in favor of the boys group. The standard error of the difference between the two means was 6.6.

The "t" for these data was .87 which was not significant for it was less than 2.58 at the 1 (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the safety component of the Health Behavior Inventory was not significant for these two groups of pupils.
Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 26 and 28 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their knowledge about and attitudes towards safety as measured by the Health Behavior Inventory.

Results on the Health Behavior Inventory Test (Community Health).—The data on the community health component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 15 and 16, pages 43 and 44, respectively; and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 20 to a high of 84 with a mean of 41.0, a median of 41.375, a standard deviation of 17.0 and a standard error of the mean of 3.80. Five or 25 per cent scored above the mean, 7 or 35 per cent scored below the mean and 8 or 40 per cent scored within the mean class-interval. The mean score of 41.0 indicated a percentile index of 16, which was 34 points below the norm of expectancy in the area of community health.

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 4 to a high of 84 with a mean of 51.0, a median of 59.5, a standard deviation of 24.05 and a standard error of the mean of 5.38. Ten or 50 per cent scored above the mean, 10 or 50 per cent scored below the mean and none or 0 per cent scored within the mean class-interval. The mean score of 51.0 indicated a percentile index of 24, which was 26 points below the norm of expectancy in the area of
TABLE 15


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-81</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>75-79</td>
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<td>70-74</td>
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</tr>
<tr>
<td>60-64</td>
<td>4</td>
<td>20</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>55-59</td>
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<td>0</td>
</tr>
<tr>
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<td>40-44</td>
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<td>35-39</td>
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<td>0</td>
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<tr>
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<td>10-14</td>
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<tr>
<td>0-4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Totals 20 100 20 100

Mean 41.0 Mean 51.0
Median 41.375 Median 59.5
Sigma 17.0 Sigma 24.05
S. E. m 3.80 S. E. m 5.38
% - tile 16 % - tile 24

community health.

The "t" ratio of comparative data.—Table 16 shows the comparative measures for the two groups were as follows: the mean was 41.0 and 51.0 for the boys and girls, respectively, with a difference of
### TABLE 16

**SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (COMMUNITY HEALTH) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964**

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E. Mean</th>
<th>S. E. M-M&lt;sub&gt;1-2&lt;/sub&gt;</th>
<th>S. E. M-M&lt;sub&gt;1-2&lt;/sub&gt;</th>
<th>t&lt;sub&gt;1-2&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>41.375</td>
<td>41.0</td>
<td>17.0</td>
<td>3.80</td>
<td>10.0</td>
<td>5.7</td>
<td>1.73</td>
</tr>
<tr>
<td>and</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>59.5</td>
<td>51.0</td>
<td>24.05</td>
<td>4.38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.0 in favor of the girls group; the median was 41.375 and 59.5 for the boys and girls group, respectively, with a difference of 18.125 in favor of the girls group; the standard deviation was 17.0 and 24.05 for the boys and girls, respectively, with a difference of 7.05 in favor of the girls group; and the standard error of the mean was 3.80 and 4.38 for the boys and girls group, respectively, with a difference of 2.58 in favor of the girls group. The standard error of the difference between the two means was 5.7.

The "t" for these data was 1.73 which was not significant for it was less than 2.58 at the 1 (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the community health component of the Health Behavior Inventory was not significant for these two groups of pupils.

**Interpretation.**—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 16 and 24
for the boys and girls group, respectively, was also an indication that
the boys and girls were below the norm of expectancy in their knowledge
about and attitudes towards community health as measured by the Health
Behavior Inventory.

Results on the Health Behavior Inventory Test (Infection and
Disease).—The data on the infection and disease component of the
Health Behavior Inventory Test, as revealed by the raw scores obtained
by the twenty boys and twenty girls enrolled in the Summer Hill School,
Cartersville, Georgia, 1963-1964, are presented in Tables 17 and 18,
pages 46 and 47, respectively; and are analyzed in the separate
paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a
low of 15 to a high of 85 with a mean of 49.25, a median of 48.5, a
standard deviation of 17.20 and a standard error of the mean of 3.82.
Nine or 45 per cent scored above the mean, six or 30 per cent scored
below the mean, and 5 or 25 per cent scored within the mean class-
interval. The mean score of 49.25 indicated a percentile index of
21 which was 29 points below the norm of expectancy in the area of
infection and disease.

Girls - For the twenty sixth-grade girls, the scores ranged from
a low of 25 to a high of 84 with a mean of 54.75, a median of 56.5, a
standard deviation of 13.70 and a standard error of the mean of 3.06.
Twelve or 60 per cent scored above the mean, 8 or 40 per cent scored
below the mean and none or 0 per cent scored within the mean class-
interval. The mean score of 54.75 indicated a percentile index of
26 which was 24 points below the norm of expectancy in the area of
TABLE 17

DISTRIBUTION OF THE RAW SCORES ON THE HEALTH BEHAVIOR INVENTORY TEST
(INFECTION AND DISEASE) OBTAINED BY THE TWENTY BOYS AND TWENTY
GIRLS OF THE SIX GRADE PUPILS IN THE SUMMER HILL ELEMENTARY
SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Score</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>80-81</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>75-79</td>
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<td>0</td>
</tr>
<tr>
<td>70-74</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>65-69</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60-64</td>
<td>0</td>
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</tr>
<tr>
<td>Totals</td>
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<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th>Girls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>49.25</td>
<td>Mean</td>
<td>54.75</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>48.5</td>
<td>Median</td>
<td>56.5</td>
<td></td>
</tr>
<tr>
<td>Sigma</td>
<td>17.20</td>
<td>Sigma</td>
<td>13.70</td>
<td></td>
</tr>
<tr>
<td>S. E. m</td>
<td>3.84</td>
<td>S. E. m</td>
<td>3.06</td>
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</tr>
<tr>
<td>% - tile</td>
<td>21</td>
<td>% - tile</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

The "t" ratio of comparative data.—Table 18, page 47, shows the
comparative measures for the two groups were as follows: the mean was
49.25 and 54.75 for the boys and girls, respectively, with a difference
of 5.50 in favor of the girls group; the median was 48.5 and 56.5 for
the boys and girls, respectively, with a difference of .80 in favor of
the girls group; the standard deviation was 17.20 and 13.70 for the boys
TABLE 18


<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E.</th>
<th>M-M&lt;sub&gt;1&lt;/sub&gt;</th>
<th>M-M&lt;sub&gt;2&lt;/sub&gt;</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>48.5</td>
<td>49.25</td>
<td>17.20</td>
<td>3.81</td>
<td>5.50</td>
<td>4.8</td>
<td>1.14</td>
</tr>
<tr>
<td>and</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>56.5</td>
<td>54.75</td>
<td>13.70</td>
<td>3.06</td>
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</tr>
</tbody>
</table>

and girls, respectively, with a difference of 3.50 in favor of the boys group; and the standard error of the mean was 3.81 and 3.06 for the boys and girls group, respectively, with a difference of .78 in favor of the boys group. The standard error of the difference between the two means was 4.8.

The "t" for these data was 1.14 which was not significant for it was less than 2.58 at the 1 (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the infection and disease component of the Health Behavior Inventory was not significant for these two groups of pupils.

Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 21 and 26 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their knowledge and attitude towards infection and disease as measured by
the Health Behavior Inventory.

Results on the Health Behavior Inventory Test (Mental Health).—The data on the mental health component of the Health Behavior Inventory Test, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 19 and 20, pages 49 and 50, respectively; and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 20 to a high of 109 with a mean of 58.25, a median of 52.68, a standard deviation of 20.70 and a standard error of the mean of 4.63. Six or 30 per cent scored above the mean, 3 or 15 per cent scored below the mean and 11 or 55 per cent scored within the mean class-interval. The mean score of 58.25 indicated a percentile index of 27 which was 23 points below the norm of expectancy in the area of mental health.

Girls - For the twenty sixth-grade girls, the scores ranged from a low of 9 to a high of 109 with a mean of 66.0, a median of 73.07, a standard deviation of 22.8 and a standard error of the mean of 5.10. Fifteen or 75 per cent scored above the mean, 5 or 25 per cent scored below the mean, and none or 0 per cent scored within the mean class-interval. The mean score of 66.0 indicated a percentile index of .33 which was 17 points below the norm of expectancy in the area of mental health.

The "t" ratio of comparative data.—Table 20, page 50, shows the comparative measures for the two groups were as follows: the mean was 58.25 and 66.0 for the boys and girls, respectively, with a difference
TABLE 19


<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-109</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>90-99</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>80-89</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>70-79</td>
<td>4</td>
<td>20</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>60-69</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50-59</td>
<td>11</td>
<td>55</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>40-49</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30-39</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20-29</td>
<td>3</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0-9</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

| Totals  | 20          | 100           | 20           | 100            |

<table>
<thead>
<tr>
<th></th>
<th>Boys Mean 58.25</th>
<th>Boys Median 52.68</th>
<th>Boys Sigma 20.70</th>
<th>Boys S. E. m 4.63</th>
<th>Boys % - tile 27</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Girls Mean 66.0</td>
<td>Girls Median 73.07</td>
<td>Girls Sigma 22.8</td>
<td>Girls S. E. m 5.10</td>
<td>Girls % - tile 33</td>
</tr>
</tbody>
</table>

of 7.75 in favor of the girls group; the median was 52.68 and 73.07 for the boys and girls, respectively, with a difference of 20.39 in favor of the girls group; the standard deviation was 20.70 and 22.8 for the boys and girls, respectively, with a difference of 2.10 in favor of the girls group; and the standard error of the mean was 4.63 and 5.10 for the boys and girls group, respectively, with a difference of .47 in favor of the girls group. The standard error
TABLE 20

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (MENTAL HEALTH) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>M1-M2</th>
<th>S. E. M1-M2</th>
<th>t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>52.68</td>
<td>58.25</td>
<td>20.70</td>
<td>4.63</td>
<td>7.75</td>
<td>6.8</td>
</tr>
<tr>
<td>and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>73.07</td>
<td>66.0</td>
<td>22.8</td>
<td>5.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

of the difference between the two means was 7.75.

The "t" for these data was 1.2 which was not significant for it was less than 2.58 at the 1 (0.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the mental health component of the Health Behavior Inventory was not significant for these two groups of pupils.

Interpretation.—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 27 and 33 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their mental health status as measured by the Health Behavior Inventory.

Results on the Health Behavior Inventory Test (Dental Health).—The data on the Dental Health component of the Health Behavior Inventory, as revealed by the raw scores obtained by the twenty boys and twenty girls enrolled in the Summer Hill School, Cartersville, Georgia, 1963-1964, are presented in Tables 21 and 22, pages 51 and 52, respectively;
<table>
<thead>
<tr>
<th>Score</th>
<th>Boys Number</th>
<th>Boys Per Cent</th>
<th>Girls Number</th>
<th>Girls Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-69</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>60-64</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>55-59</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50-54</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>45-49</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-44</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35-39</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30-34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25-29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20-24</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15-19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5-9</td>
<td>13</td>
<td>65</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>0-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Totals | 20          | 100          | 20          | 100          |

| Mean   | 14.25       | Mean         | 14.50       |
| Median | 3.89        | Median       | 3.55        |
| Sigma  | 17.35       | Sigma        | 31.10       |
| S. E. m| 3.88        | S. E. m      | 4.72        |
| % - tile | 1          | % - tile    | 1           |

and are analyzed in the separate paragraphs below.

Boys - For the twenty sixth-grade boys, the scores ranged from a low of 4 to a high of 69, with a mean of 14.25, a median of 3.89, a standard deviation of 17.35 and a standard error of the mean of 3.88. Seven or 35 per cent scored above the mean, 13 or 65 per cent scored
TABLE 22

SIGNIFICANT DIFFERENCES ON THE HEALTH BEHAVIOR INVENTORY TEST (DENTAL HEALTH) BETWEEN THE TWENTY BOYS AND TWENTY GIRLS OF THE SIXTH GRADE PUPILS IN THE SUMMER HILL ELEMENTARY SCHOOL, CARTERSVILLE, GEORGIA, 1963-1964

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Median</th>
<th>Mean</th>
<th>Sigma</th>
<th>S. E.</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>3.89</td>
<td>14.25</td>
<td>17.35</td>
<td>3.88</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.25</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.03</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>3.55</td>
<td>14.50</td>
<td>31.10</td>
<td>14.72</td>
<td></td>
</tr>
</tbody>
</table>

below the mean, and none or 0 per cent scored within the mean class-interval. The mean score of 14.25 indicated a percentile index of 1 which was 49 points below the norm of expectancy in the area of dental health.

Girls - For the twenty sixth-grade girls the scores ranged from a low of 4 to a high of 69 with a mean of 14.50, a median of 3.55, a standard deviation of 31.10 and a standard error of the mean of 14.72. Six or 30 per cent scored above the mean, 14 or 70 per cent scored below the mean and none or 0 per cent scored within the mean class-interval. The mean score of 14.5 indicated a percentile index of 1 which was 49 points below the norm of expectancy in the area of dental health.

The "t" ratio of Comparative data.—Table 22 shows the comparative measures for the two groups were as follows: the mean was 14.25 and 14.50 for the boys and girls, respectively, with a difference of .25 in favor of the girls group; the median was 3.89 and 3.55 for the boys and girls.
group, respectively, with a difference of .34 in favor of the boys group; the standard deviation was 17.35 and 31.10 for the boys and girls, respectively, with a difference of 13.75 in favor of the girls group; and the standard error of the mean was 3.88 and 4.72 for the boys and girls group, respectively, with a difference of .84 in favor of the girls group. The standard error of the difference between the two means was 8.0.

The "t" for these data was .03 which was not significant for it was less than 2.58 at the 1 (.01) per cent level of confidence at 38 degrees of freedom. Therefore, the difference of the dental health component of the Health Behavior Inventory was not significant for these two groups of pupils.

**Interpretation.**—A summary of the data analyzed and compared above would appear to indicate that the mean percentile of 1 and 1 for the boys and girls group, respectively, was also an indication that the boys and girls were below the norm of expectancy in their dental health status as measured by the Health Behavior Inventory.

Further, because of the absence of rigid and controls of the groups, the question still remains as to what extent the factors of socio-economic status and school experiences could or did significantly alter the observed health status of these sixth-grade boys and girls. However, it is apparent from the test results to what extent there was a difference in performance in observed health status of these pupils from variable to variable on the Health Behavior Test using this study.
More significantly, perhaps, there remains the question as to what extent the socio-economic background and the school experiences between the two groups would or did significantly affect the level of observable and measured the Mental Health Status of the boys and girls who were the subjects of this research.

Interpretative summaries.—All of the quantitative measures basic to the analysis and interpretation of the data presented throughout Chapter II, as shown in Tables 1 through 22, are summarized in Summary Table 23, page 55, for the indicated performances and/or indices of the boys and girls of the sixth grade as identified for the following categories of data:

1. Mental Health Analysis
   (a) Assets
   (b) Liabilities
   (c) Total

2. Health Behavior Inventory
   (a) Personal Health
   (b) Personal Cleanliness
   (c) Nutrition
   (d) Safety
   (e) Community Health
   (f) Infection and Disease
   (g) Mental Health
   (h) Dental Health

The "interpretative summaries" of the findings of this research are reported separately for each test variable and index for the boys and girls who were sixth-grade pupils in the Summer Hill School, Cartersville, Georgia, 1963-1964.

Interpretative Summaries

Interpretative Summary on Mental Health Analysis (Assets).--The
TABLE 23


<table>
<thead>
<tr>
<th>Test Variable</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S. E.</td>
<td>%tile</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Personal Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Cleanliness</td>
<td>64.0</td>
<td>59.5</td>
</tr>
<tr>
<td>Nutrition</td>
<td>51.55</td>
<td>55.20</td>
</tr>
<tr>
<td>Safety</td>
<td>52.25</td>
<td>42.0</td>
</tr>
<tr>
<td>Community Health</td>
<td>56.0</td>
<td>62.0</td>
</tr>
<tr>
<td>Infection and Disease</td>
<td>41.0</td>
<td>41.35</td>
</tr>
<tr>
<td>Mental Health</td>
<td>58.25</td>
<td>52.68</td>
</tr>
<tr>
<td>Dental Health</td>
<td>14.25</td>
<td>3.89</td>
</tr>
</tbody>
</table>

Mental Health Analysis

<table>
<thead>
<tr>
<th>Test Variable</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S. E.</td>
<td>%tile</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Assets</td>
<td>49.5</td>
<td>50.5</td>
</tr>
<tr>
<td>Liabilities</td>
<td>39.75</td>
<td>38.25</td>
</tr>
<tr>
<td>Total</td>
<td>41.85</td>
<td>41.25</td>
</tr>
</tbody>
</table>

Health Behavior Inventory

<table>
<thead>
<tr>
<th>Test Variable</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S. E.</td>
<td>%tile</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Personal Health</td>
<td>49.5</td>
<td>50.5</td>
</tr>
<tr>
<td>Personal Cleanliness</td>
<td>51.55</td>
<td>55.20</td>
</tr>
<tr>
<td>Nutrition</td>
<td>52.25</td>
<td>42.0</td>
</tr>
<tr>
<td>Safety</td>
<td>56.0</td>
<td>62.0</td>
</tr>
<tr>
<td>Community Health</td>
<td>41.0</td>
<td>41.35</td>
</tr>
<tr>
<td>Infection and Disease</td>
<td>58.25</td>
<td>52.68</td>
</tr>
<tr>
<td>Mental Health</td>
<td>14.25</td>
<td>3.89</td>
</tr>
</tbody>
</table>

*Note: The table data includes mean, median, and standard error values for various health-related variables, comparing boys and girls in the sixth grade of the Summer Hill Elementary School, Cartersville, Georgia, during the years 1963-1964.*
data on the Mental Health Analysis (assets), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of the assets between the boys and girls of the sixth-grade as indicated by the "t" of .58 at .01 per cent level of confidence and 38 degrees of freedom.

2. The mean percentile index on Asset of 5 and 7 for the boys and girls, respectively, indicated that these boys and girls were below the norm of expectancy in the area of Mental Health.

Interpretative summary on Mental Health Analysis (Liabilities).

The data on the Mental Health Analysis (Liabilities), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of liabilities between boys and girls of the sixth-grade as indicated by the "t" of .82 at the .01 per cent level of confidence and 38 degrees of freedom. By the same criteria there was no significant difference in the liabilities for the boys and girls.

2. The mean percentile index on liabilities of 5 and 7 for the boys and girls, respectively, indicated that each group was far below the indicated norm of mental health liabilities for school children.

Interpretative summary on Mental Health Analysis (Total).

The data on Mental Health Analysis (Total), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of the total between the boys and girls of the sixth-grade pupils as indicated by the "t" of .08 at the .01 per cent level of confidence and 38 degrees of freedom.

2. The mean percentile index on the total mental status of 1 and 1 for the boys and girls, respectively, indicated that each group was experiencing a total growth and development in mental health status at the lowest possible level of growing up.

Interpretative summary on the Health Behavior Inventory (Personal
Health.—The data on the Health Behavior Inventory Test (Personal Health), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of average personal health between the boys and girls of the sixth grade as indicated by the \( t \) of 1.1.

2. In terms of the percentile index: (a) both the boys and the girls were found to be markedly below the norm of expectancy on the average personal health component with 30 and 29 percentile index for the boys and girls of the sixth-grade pupils, respectively.

Interpretative summary on the Health Behavior Inventory (Personal Cleanliness).—The data on the Health Behavior Inventory (Personal Cleanliness), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was a significant difference on the variable of the personal cleanliness between the boys and girls as indicated by the \( t \) of 2.95 at the .01 per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index: (a) both the boys and girls pupils were found to be markedly below the norm of expectancy of performance in the area of personal cleanliness as indicated by percentile index of 22 and 34 for the boys and girls, respectively.

Interpretative summary on the Health Behavior Inventory (Nutrition).—The data on the Health Behavior Inventory Test (Nutrition), as shown in Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of average nutrition between the boys and girls as indicated by the \( t \) of 1.9 at the .01 per cent level of confidence and 38 degrees of freedom. However, at the 5 per cent level of confidence there would have been a significant difference in nutrition status in favor of the girls.

2. In terms of the percentile index: (a) both the boys and girls were found to be markedly below the norm of expectancy
of performance in the area of nutrition as indicated by the percentile index of 19 and 27 for the boys and girls, respectively.

Interpretative summary on the Health Behavior Inventory Test (Safety).—The data on the Health Behavior Inventory Test (Safety), as presented in Summary Table 23, may be summarized and interpreted thusly:

1. There was no significant difference on the variable of the safety between the boys and girls of the sixth-grade as indicated by the "t" of .141 at the .01 per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index of 26 for the boys and 28 for the girls, it was found that knowledge about and attitudes towards safety were far below the norm of expectancy for school children.

Interpretative summary on the Health Behavior Inventory Test (Community Health).—The data on the Health Behavior Inventory Test (Community Health), as presented in Summary Table 23, may be summarized and interpreted in this manner:

1. There was no significant difference on the variable of community health between the boys and girls of the sixth-grade as indicated by the "t" of .450 at the .01 per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index, the boys and girls of the sixth-grade were to be markedly and equally below the norm of expectancy in community health as revealed by the mean percentile index of 16 and 24, respectively.

Interpretative summary on the Health Behavior Inventory Test (Infection and Disease).—The data on the Health Behavior Inventory Test (Infection and Disease), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the variable of infection and disease between the boys and girls of the sixth-grade as indicated by the "t" of 1.14 at the .01
per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index, the boys and girls of the sixth-grade were found to be retarded in their knowledge in the area of infection and disease as indicated by the mean percentile index of 21 and 26, respectively.

Interpretative summary on the Health Behavior Inventory Test (Mental Health).—The data on the Health Behavior Inventory Test (Mental Health), as shown in Summary Table 23, may be summarized and interpreted in the following manner:

1. There was no significant difference on the variable of Mental health between the boys and girls of the sixth-grade as indicated by the \( t \) of 1.2 at the .01 per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index, the boys and girls of the sixth-grade were found to be retarded in their knowledge in the area of mental health as indicated by the mean percentile index of 27 and 33, respectively.

Interpretative summary on the Health Behavior Inventory Test (Dental Health).—The data on the Health Behavior Inventory Test (Dental Health), as shown in Summary Table 23, may be summarized and interpreted as follows:

1. There was no significant difference on the total variable between the boys and girls of the sixth-grade as indicated by the \( t \) of .064 at the .01 per cent level of confidence and 38 degrees of freedom.

2. In terms of the percentile index, both the boys and girls of the sixth-grade were found to be markedly retarded in their knowledge in the area of dental health as indicated by the mean percentile index of 1 and 1, respectively.
CHAPTER III

SUMMARY AND CONCLUSIONS

Recapitulation of theoretical bases of study.—The major responsibility of the elementary school is to provide educational experiences that will assure his living happy and successful in a complex changing society.

The researcher was confronted with a problem which grew out of the inadequacy of the school-health program. The school health program lost its status because the department of education shifted the emphasis upon health as an hourly day-by-day program to a thirty minute per day program in the elementary school in the state of Georgia.

The researcher believes that the findings from this study will derive merits from an increased understanding of the true value of the school health program.

The major problem and purpose envolved in this study was to identify and determine the significant differences, if any, on the variables of health assets, health liabilities, health knowledge and health practices between the boys and girls of the sixth-grade of the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

All significant terms as Health, Health Education, School Health Program, Knowledge and Practices were officially defined with reference to instruments used in the study.
The study did not call for identification of causes and justification levels of intelligence nor the measurement of effectiveness in the observed patterns of health instruction.

**Locale and recapitulation design.**—Significant aspects of the locale and research design of this research are characterized in the statements below.

1. **Locale** - The gathering of the data necessary for the development of this study was done in the Summer Hill Elementary School, Cartersville, Georgia, during the 1963-1964 school year. Cartersville, the county seat of Bartow County, is in the central south part of the county, and is estimated to have a population of approximately 10,000 people. The 1960 census showed an official population of 8,668, since then the city limits have been extended several miles. Atlanta is 60 miles southeast and Chattanooga is 80 miles northwest of Cartersville.

2. **Period of study** - This study was conducted during the first and second semester of the 1963-1964 school year with the testing program carried out during the first semester.

3. **Method of research** - The Descriptive-Survey Method of research utilizing standardized test and statistical analysis, was used to collect and interpret the data required to fulfill the Purposes of the Study.

4. **Description of subjects** - The subjects involved in this study were twenty (20) boys and twenty (20) girls of the sixth-grade pupils in the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964.

5. **Description of instruments** - The instruments used in the research were: (a) Mental Health Analysis by Louis P. Thorpe, Willie W. Clark and Earnest W. Tiegs and (b) the Health Behavior Inventory by Sylvia Yellens and Edward B. Johns.

6. **Criterion of Reliability** - The "Criterion of reliability" used to test the significant differences of the data between the two groups: boys and girls of the sixth-grade, was Fisher's "t" of 2.58 at the one per cent level of confidence for 38 degrees of freedom.

7. **Research procedures** - The procedure steps which were used: (a) permission secured to conduct the study; (b) pertinent
literature surveyed; (c) two tests, Mental Health Analysis, and Health Behavior Inventory were administered; (d) data appropriately tabulated and statistically treated with reference to Fisher's "t".

Summary of related literature.—The summary of the survey of the related literature pertinent to the problem of this research which dealt with the knowledge, practices and attitudes of the sixth-grade pupils led to the selection and generalization of the more significant and abstracted statements below.

1. The American Association of School Administrators state that educational growth of children to fullest potential cannot be achieved unless every aspect of the physical environment is so controlled that it contributes to the comfort and health of the pupils and professional staff.

2. Lee and Lee, in the Child and His Curriculum, state that one of the greatest contributions the school can make to a child is to promote his present health and send him out with proper habits and attitudes for protecting and maintaining that health for the rest of his life.

3. Bernice Moss states that health education must develop attitudes and understanding which will influence behavior, the ultimate evaluation of any health education program is in terms of healthier people.

4. H. F. Kilander states that health habits are strengthened by continuous application.

5. The co-authors of Health Education emphasize that an active curriculum development is promoted to the extent that new standards and techniques are used. Evaluation is essential for determining progress and for helping to point the way for further improvement.

6. Turner states that whatever educational objectives we may accept, we must recognize that health maintenance aids to the individual in his progress toward them.

7. Turner states that the significant emphasis of the modern school health program has been upon improving health practices of the pupils.

8. Ruth Grout states that teaching is successful to the extent that it helps to bring about behavior changes from whom it
is extended.

9. Ruth Grout further states that the teacher who is alert to changing conditions, sensitive to children's needs and interests and trained in teaching health principles and practices can contribute to both school and community life.

10. C. L. Anderson states in *School Health Practices* that attitudes are abstract and intangible and are not readily amenable to precise measurement. To distinguish between the testee's attitude and his knowledge to what response society approves still calls for a solution. The line between traits and attitudes poses an additional problem. Opinions are a means by which attitudes are measured, but opinions are not always reliable.

Summary of Basic Findings

Organization and findings.--The summary of the data pertinent to this research on the tested differences, if any, was determined on variables of Health Knowledge, Practice and Attitudes Between Selected Groups of Elementary Pupils in the Summer Hill Elementary School, Cartersville, Georgia, 1963-1964, and is presented below.

Mental Health Analysis Test
(Total Assets)
Tables 1 and 2

On the Mental Health Analysis Test (total Assets), the following statistical measures were obtained: the boys, a mean score of 49.5, a median score of 50.5, with a standard deviation of 8.43. For the girls, a mean score of 51.15, a median score of 51.5 with a standard deviation of 9.51. The score for the two groups showed a difference of the means of 1.65, with a standard error of the difference between the means of 2.83, and a "t" of .54 for .01 per cent level of confidence, with 38 degrees of freedom.

Mental Health Analysis Test
(Total Liabilities)
Tables 3 and 4

On the Mental Health Analysis Test (total Liabilities), the following statistical measures were obtained: the boys, a mean score of 39.75, a median score of 38.25 with a standard deviation of 8.97.
For the girls, a mean score of 4.20, a median score of 4.11, with a standard deviation of 8.7. The score for the two groups showed a difference of the means of 2.25, with a standard error of the difference between the means of 2.75, and a "t" of .82 for .01 per cent level of confidence, with 38 degrees of freedom.

**Mental Health Analysis Test**
*(Total)*  
**Tables 5 and 6**

On the Mental Health Analysis Test (totals), the following statistical measures were obtained: the boys, a mean score of 41.85, a median score of 41.25, with a standard deviation of 7.77. For the girls, a mean score of 42.25, a median score of 42.5, with a standard deviation of 8.31. The score for the two groups showed a difference of the means of 2.25, with a standard error of the difference between the means of 2.55, and a "t" of .88 for .01 per cent level of confidence, with 38 degrees of freedom.

**Health Behavior Inventory Test**  
*(Personal Health)*  
**Tables 7 and 8**

On the Health Behavior Inventory Test (Personal Health), the following statistical measures were obtained: the boys, a mean score of 64.0, a median score of 59.5, with a standard deviation of 12.15. For the girls, a mean score of 59.25, a median score of 58.5 with a standard deviation of 15.0. The score for the two groups showed a difference of the means of 4.75, with a standard error of the difference between the means of 4.4, and a "t" of 1.1 for .01 per cent level of confidence, with 38 degrees of freedom.

**Health Behavior Inventory Test**  
*(Personal Cleanliness)*  
**Tables 9 and 10**

On the Health Behavior Inventory Test (Personal Cleanliness), the following statistical measures were obtained: the boys, a mean score of 51.25, a median score of 55.20 with a standard deviation of 11.70. For the girls, a mean score of 69.0, a median score of 70.90 with a standard deviation of 18.10. The score for the two groups showed a difference of the means of 18.25, with a standard error of the difference between the means of 5.98, and a "t" of 2.95 for .01 per cent level of confidence, with 38 degrees of freedom.

**Health Behavior Inventory Test**  
*(Nutrition)*  
**Tables 11 and 12**

On the Health Behavior Inventory Test (Nutrition), the following
statistical measures were obtained: the boys, a mean score of 52.25, a median score of 52.80, with a standard deviation of 18.95. For the girls, a mean score of 55.0, a median score of 58.25 with a standard deviation of 23.25. The score for the two groups showed a difference of the means of 12.75, with a standard error of the difference between the means of 6.7, and a "t" of 1.9 for .01 per cent level of confidence, with 38 degrees of freedom.

Health Behavior Inventory Test
(Safety)
Tables 13 and 14

On the Health Behavior Inventory Test (Safety) the following statistical measures were obtained: the boys, a mean score of 56.0, a median score of 62.0, with a standard deviation of 23.0. For the girls, a mean score of 61.77, a median score of 60.0 with a standard deviation of 18.85. The score for the two groups showed a difference of the means of 5.77, with a standard error of the difference between the means of 6.6, and a "t" of .87 for .01 per cent level of confidence, with 38 degrees of freedom.

Health Behavior Inventory Test
(Community Health)
Tables 15 and 16

On the Health Behavior Inventory Test (Community Health), the following statistical measures were obtained: the boys, a mean score of 51.0, a median score of 51.375, with a standard deviation of 17.0. For the girls, a mean score of 51.0, a median score of 59.5 with a standard deviation of 21.05. The score for the two groups showed a difference between the means of 5.7 and a "t" of 1.73 for .01 per cent level of confidence, with 38 degrees of freedom.

Health Behavior Inventory Test
(Infection and Disease)
Tables 17 and 18

On the Health Behavior Inventory Test (Infection and Disease), the following statistical measures were obtained: the boys, a mean score of 49.25, a median score of 48.5, with a standard deviation of 17.20. For the girls, a mean score of 54.75, a median score of 56.5 with a standard deviation of 13.70. The score for the two groups showed a difference of the means of 5.50, with a standard error of the difference between the means of 1.8, and a "t" of 1.14 for .01 per cent level of confidence, with 38 degrees of freedom.

Health Behavior Inventory Test
(Mental Health)
Tables 19 and 20
On the Health Behavior Inventory Test (Mental Health), the following statistical measures were obtained: the boys, a mean score of 58.25, a median score of 52.68, with a standard deviation of 20.70. For the girls, a mean score of 66.0, a median score of 73.07 with a standard deviation of 22.8. The score for the two groups showed a difference of the means of 7.75, with a standard error of the difference between the means of 6.8, and a "t" of 1.2 for .01 per cent level of confidence, with 38 degrees of freedom.

Health Behavior Inventory Test
(Dental Health)
Tables 21 and 22

On the Health Behavior Inventory Test (Dental Health), the following statistical measures were obtained: the boys, a mean score of 14.25, a median score of 3.89, with a standard deviation of 17.35. For the girls, a mean score of 14.50, a median score of 3.55 with a standard deviation of 31.10. The score for the two groups showed a difference of the means of .25, with a standard error of the difference between the means of 8.0, and a "t" of .03 for .01 per cent level of confidence, with 38 degrees of freedom.

Conclusions.—The conclusions are based upon the data collected during the research. These data were presented in tabulator and textual form previously. The interpretation of the data yielded the findings which provide the basis for the conclusions which are presented as generalized answers to the specific questions posed as the specific purposes of this study.

1. The group of boys and the group of girls were found to be experiencing the same or quite similar levels of mental health development with reference to mental health, assets and liabilities as measured by the Mental Health Analysis Test.

(a) The measured levels of assets and liabilities indices for the two groups: boys and girls, were significantly different although the girls scored higher than the boys.

2. The group of boys and the group of girls were found to be experiencing the same or quite similar levels of mental health with respect to knowledge, practices and attitudes as measured by the Mental Health Behavior Inventory Test.

(a) The measured levels of knowledge, practice and attitudes
indices for the two groups: boys and girls were not significantly different although the girls scored higher than the boys.

3. The over-all ratings of mental health assets and liabilities indices as indicated by the percentile index would appear to point to the fact that these boys and girls were experiencing similar or equal mental health developments.

   (a) The percentile index was 11 and 15 for the boys and girls, respectively.

4. The over-all ratings of knowledge, practices and attitudes indices as indicated by the percentile index would appear to point to the fact that these boys and girls were experiencing similar or equal mental health development.

   (a) The percentile index was 8 and 10 for the boys and girls, respectively.

5. There is a serious need for improved instructional activities in health education in this school.

6. The members of the instructional staff need to acquaint themselves with the modern trends in the teaching methodologies of health education.

7. There is an inadequacy in the instructional material available and used in the health program in this school.

Implications.—The implications which inhere in the findings of this research are given in the paragraphs that follow.

1. The standardized test can be useful as a desirable means of determining the worthwhile levels of the acquisition of health knowledge, discipling in health practices, and the developing of health attitudes pertinent to health and healthful environment.

2. The school needs to provide learning and living experiences which will habituate the developing of desirable health practices and favorable reaction patterns.

3. The school health program must be seriously examined to meet the needs of the school population for teaching techniques; teaching aids and supplementary materials; and instructional staff qualifications and competencies.

4. The school health education program is successful insofar as it has developed sound relationships with the home and
with interested community agencies.

Recommendations.--The analysis and interpretation of the data appear to justify the recommendations that follow.

1. The Summer Hill Elementary School should provide such experiences as will cause its students to have a desire to practice behavior which will bring them to and maintain them in a state of good health within a healthful environment.

2. The instructional staff should check into the need for more formal training and professional experiences through which they may acquire a broad knowledge of health which will aid the developing and activating of a curriculum geared to improve the behavior patterns of the participants.

3. The Summer Hill Elementary School should provide activities which will favorably influence habits, attitudes and knowledge related to community health.

4. The administration might consider the fruitfulness of developing a sound relationship between the school and public health agencies which can make the resources of community health available to students.

5. Specific research is needed to identify the factors in the health status and health knowledge and practice; and, to ascertain the statistical differences, if any, on selected variables of health status and health knowledge.
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Unpublished Materials

VITA

Weems, Joe Norwood

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Special Interests -
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INSTRUCTIONS TO PUPILS:

This booklet contains questions about a number of things the answers to which will show how you feel or think. There are no "right" or "wrong" answers to the questions. Some pupils will answer YES and others will answer NO to the same question. Work as fast as you can, but be sure to answer every question.

DO NOT WRITE OR MARK ON THIS BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.
INSTRUCTIONS TO PUPILS

DO NOT WRITE OR MARK ON THIS BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.
You are to decide for each question whether the answer is YES or NO and mark it as you are told. The
following are two sample questions:

SAMPLES
A. Have you ever washed an automobile? YES NO
B. Have you ever ridden in an airplane? YES NO

DIRECTIONS FOR MARKING ANSWERS

ON ANSWER SHEETS
Make a heavy black mark within the pair of dotted lines under the word YES or NO, whichever applies
to you.
If you have ever washed an automobile, mark your answer to question A this way:

YES NO
A ——

If you have never ridden in an airplane, mark your answer to question B this way:

YES NO
B ——

Mark the sample questions on your answer sheet now!

ON TEST BOOKLETS
Draw a circle around YES or NO, whichever applies to you.
If you have ever washed an automobile, make a circle around the YES in question A above this way:

A. YES NO

If you have never ridden in an airplane, make a circle around the NO in question B above this way:

B. YES NO

Mark the sample questions above now!

When you are told to begin, go right on from one page to another until you have answered all of the
questions. Work as fast as you can without making mistakes, but be sure that you do not skip any questions.
Now find item 1 in your test booklet and begin.
1. Do your folks usually let you have some of the friends you want? **YES NO**
2. Do you sometimes have a good talk with one or more of your teachers? **YES NO**
3. Are you usually able to get the best seat at a program or other meeting? **YES NO**
4. Do you often start eating before the others do because they take so long to get to the table? **YES NO**
5. Do your friends seem to think that you are going to get along well? **YES NO**
6. Do people seem to hurt your feelings more often than they do the feelings of others? **YES NO**
7. Are things often so bad that you feel as though life is hardly worth living? **YES NO**
8. Are you often worried about things without knowing why? **YES NO**
9. Do you know how to keep people from feeling bad when they make a mistake? **YES NO**
10. Do you keep from showing that you are bothered when you lose at games? **YES NO**
11. Are people often so unfair to you that you have to make many excuses for yourself? **YES NO**
12. Do you like to be with others rather than to be alone? **YES NO**
13. Do people seem to think you do your share when there is work to be done? **YES NO**
14. Have you found it hard to make friends with the people you like? **YES NO**
15. Do you usually try to work or play with your friends? **YES NO**
16. Are most of your school subjects interesting? **YES NO**
17. Do you worry because your legs are too large or too small? **YES NO**
18. Are you troubled because your chin does not look right? **YES NO**
19. Are you unhappy because people notice that you have a scar or marks on your face? **YES NO**
20. Do you spend more time than you like to on your school work? **YES NO**
21. Do you believe that all people should be treated right? **YES NO**
22. Do you believe that people who have to work for a living are just as good as those who have so much money they need not work for a living? **YES NO**
23. Do you have a hard time going to sleep? **YES NO**
24. Do you believe that people who do the right things will usually win out? **YES NO**
25. Do you often bite your finger-nails? **YES NO**
26. Have you found that it pays to make a fuss when people try to stop you from doing the things you like?  
   YES NO

27. Do some boys or girls get into your way so much that you push them aside?  
   YES NO

28. Does your family sometimes go to picnics or other places with you?  
   YES NO

29. Do you have some good friends of your own age?  
   YES NO

30. Do you have a very good friend who will talk with you about your troubles?  
   YES NO

31. Do you often feel as though something keeps you from doing things that you would like to do?  
   YES NO

32. Do you usually try to find out what your friends like to do?  
   YES NO

33. Do you usually tell people when they do something well?  
   YES NO

34. Do you often become so lost in your thoughts that you fail to notice the people around you?  
   YES NO

35. Are you more contented when you are alone than when you are with other people?  
   YES NO

36. Are you a member of a group which often does interesting things?  
   YES NO

37. Do you usually have your best times with boys or girls who are younger than you?  
   YES NO

38. Do you like to play games in the homes of your friends?  
   YES NO c

39. Do you take part in plays or programs at school?  
   YES NO c

40. Have you found that most pupils seem to get along in school better than you do?  
   YES NO n

41. Do you feel bad because of pimples or marks on your skin that keep you from looking nice?  
   YES NO o

42. Do you have some kind of work to do that you like very much?  
   YES NO d

43. Do you feel that you are allowed to do most of the things that you enjoy?  
   YES NO d

44. When you play, do you like to play hard?  
   YES NO d

45. Do you feel bad because your body is not as well-formed as you would like?  
   YES NO o

46. Do you often have stomach-aches?  
   YES NO p

47. Do you often think about what you are going to be when you grow up?  
   YES NO e

48. Do you believe that you should treat people the way you would like to be treated?  
   YES NO e

49. Do you get dizzy rather often?  
   YES NO p

50. Do you hum a great deal of the time?  
   YES NO p
51. Have you been able to get even with people you do not like by refusing to speak to them?  

52. Do you try to stay away from people who will not let you do the things you like?  

53. Is someone at home usually nice to you when you are in trouble?  

54. Have you found that someone else will usually take the biggest piece of pie or cake if you don’t beat him to it?  

55. Do other peoples’ feelings often seem to be hurt by things you say?  

56. Have you found that it pays to tell people when they have good ideas?  

57. Do your friends seem to think that you are fair with them?  

58. Do you often worry because people do not like you as well as they should?  

59. Are you often troubled because your plans do not turn out well?  

60. Can you often stop a quarrel without hurting peoples’ feelings?  

61. Do you often feel that members of your family do not like you as well as you deserve?  

62. Do people often say that you have not done your work as well as you should?  

63. Do your classmates seem to think that their ideas are better than yours?  

64. Do you sometimes go camping or hiking with people of your own age?  

65. Do most of the other pupils seem to think they are better looking than you?  

66. Do you usually look forward with pleasure to the duties of each new day?  

67. Do you feel that teachers usually treat the pupils as fairly as they should?  

68. Do you worry about the things people say about you because you are too thin?  

69. Are you concerned because there are many things you cannot do because of your weight?  

70. Are you unhappy because of the way your teeth look?  

71. Do you think that people who are either richer or poorer than you should be treated well?  

72. Do you often have headaches?  

73. Do you believe that what people do is more important than who they are?  

74. Do you think that it is as important to behave well as it is to know a great deal?  

75. Do you think that people should be as careful of other peoples’ things as they are of their own?
76. Is there someone at home who will talk with you about your problems?  

YES NO

77. Have you found that you can get things more quickly by demanding what you want?  

YES NO

78. Do your folks let you choose your clothes or other things you need?  

YES NO

79. Do the people at home often let you help decide what the family is going to do?  

YES NO

80. Have you found that it pays to tell others right out about things you don’t like?  

YES NO

81. Do you usually go out of your way to help others?  

YES NO

82. Do you often feel unhappy without knowing why?  

YES NO

83. Are you often so busy with your own thoughts that you do not hear what other people say?  

YES NO

84. Do you feel better when you let people know that you see their faults?  

YES NO

85. Is it easy for you to get your classmates to do what they should?  

YES NO

86. Are you a member of Cubs, Scouts, Bluebirds, Girl Scouts, or some other similar group?  

YES NO

87. Do you like to be with your friends as much as you can?  

YES NO

88. Do many people make the mistake of thinking they cannot depend on you?  

YES NO

89. Do you like to go to school parties or socials?  

YES NO

90. Do you need a great deal of help from your teacher in order to do your best work in school?  

YES NO

91. Do you feel bad because there is something the matter with your mouth or lips?  

YES NO

92. Are you troubled because there is something the matter with your feet or legs?  

YES NO

93. Do you think that you are doing well in school?  

YES NO

94. Do you usually feel good after you have worked or played hard?  

YES NO

95. Do you have interesting things to do when you get tired of work or study?  

YES NO

96. Do you stutter some at times?  

YES NO

97. Do you find that you must squint your eyes a great deal?  

YES NO

98. Do you believe that people of other races are entitled to their rights?  

YES NO

99. Do you have the habit of tapping with your fingers?  

YES NO

100. Are you often bothered with eye strain?  

YES NO
101. Does it pain you more when you get hurt than it does most other people?  

YES NO

102. Do you find that it pays to get mad at people who say mean things about you?  

YES NO

103. Do you have some good friends among your cousins or other relatives?  

YES NO

104. Do people at home usually seem to believe the things you tell them?  

YES NO

105. Are many people so unfair that they expect you to keep your feelings to yourself?  

YES NO

106. Do you like to give your classmates credit for what they know?  

YES NO

107. Have you found that it is best not to tell people what to do?  

YES NO

108. Have people often said unfairly that you have many poor ideas?  

YES NO

109. Do you find that it is hard for you to rest and take things easy?  

YES NO

110. Are you often worried about what is going to happen to you?  

YES NO

111. Do you like to do things rather than read or think about them?  

YES NO

112. Have you found that many people are hard to get along with?  

YES NO

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113. Do people often seem to think that you are not as bright as you really are?  

YES NO

114. When there is time do you usually play or visit with your classmates?  

YES NO

115. Do you like to study with other boys or girls rather than alone?  

YES NO

116. Do you worry because you think your nose is not nice looking?  

YES NO

117. Do you spend part of your time reading about pets and other animals?  

YES NO

118. Are there a number of things which you like to talk about with your friends?  

YES NO

119. Do you sometimes feel bad because your feet are too large or too small?  

YES NO

120. Have you often felt that your ears are not nice looking?  

YES NO

121. Should people suffer when they do wrong?  

YES NO

122. Do you believe that being happy depends more on what you do than on what others do for you?  

YES NO

123. Do you sometimes walk or talk in your sleep?  

YES NO

124. Are you often troubled with bad dreams?  

YES NO

125. Should everyone be as careful to do what he ought to do as to ask for his rights?  

YES NO
126. No matter how hard it is, do you usually get people to pay attention to you? YES NO

127. Do you feel that your folks like to have you bring friends home with you? YES NO

128. Do you often have good times at home with your folks? YES NO

129. Do many people pay so little attention to your needs that you have to quarrel with them? YES NO

130. Do you have to make a fuss because you are expected to do so many things? YES NO

131. Have you often felt that you have more bad luck than most people? YES NO

132. Do you usually help other people have a good time at parties? YES NO

133. Do you usually do what you say you will? YES NO

134. Do you usually keep from talking much about the things you know? YES NO

135. Have you found that you sometimes like and sometimes dislike the same people? YES NO

136. Do you do several things which are of interest to other boys or girls? YES NO

137. Have you often felt that you were left out of things you would like to do? YES NO

138. Have you found that most people usually think about themselves and forget others? YES NO

139. Do you feel that most people manage to get more attention than they deserve? YES NO

140. Do you sometimes go to programs or socials with other people? YES NO

141. When you work, do you like to work hard? YES NO

142. Do you like your work well enough so that you do it with care? YES NO

143. Do you sometimes feel bad because you can’t do what you would like with your hands or feet? YES NO

144. Do you often feel bad because you can’t see well enough to read and do other things? YES NO

145. Do you like to spend part of your time working or doing other things outdoors? YES NO

146. Do some of your muscles sometimes tremble? YES NO

147. Do you seem to catch cold very easily? YES NO

148. Do you believe that every person has a right to his own beliefs and ideas? YES NO

149. Is it wrong to take things you need very much if you are sure you won’t get caught? YES NO

150. Do you find that you are seldom hungry? YES NO
151. Does someone at home help you get the money you need for things?  

152. Are many people so unfair that you have to treat them badly?  

153. Does one of your folks often take time to do things you like?  

154. Do you know someone who will keep your secrets?  

155. Do you get along best if you pay little attention to other people’s feelings?  

156. Do you find it better not to tell people about their faults?  

157. Do you often feel that there is no use to keep on trying to do all the things people want you to do?  

158. Is it easy for you to like the things other people are doing?  

159. Have you found that there are very few people who are good friends for long?  

160. Have you found ways of getting out of most of the things you do not like to do?  

161. Do you sometimes help to plan or carry on a party?  

162. Are you a member of a boys’ or girls’ group which does interesting things?  

163. Have you often felt that you will need more courage than other people if you are to do well?  

164. Do your friends seem to think that you are good at helping to get things done?  

165. Have you found that it pays to tell people about the many things you have done?  

166. Do you have good times raising animals or playing with pets?  

167. Are you often troubled because of the size of your mouth?  

168. Are you troubled because your shoulders do not look as well as those of other people?  

169. Have you often felt bad because you have many freckles?  

170. Do you sometimes enjoy yourself by going fishing, swimming, or hiking?  

171. Should people who cannot take care of themselves have help?  

172. Do you believe that most people are honest?  

173. Do you often hear a buzzing in your ears?  

174. Do your legs often feel too tense?  

175. Do you often have pains in your head?
176. Do most of your friends have the traits or qualities that you like? [YES NO]

177. Do you have many good talks about things with close friends? [YES NO]

178. Are there some people not in your family who like to talk things over with you? [YES NO]

179. Have you found that if you want to be happy you cannot depend on others? [YES NO]

180. Have you found that you can often get out of trouble by stretching the truth a little? [YES NO]

181. Do you find it easy to be nice to people even when they do not agree with you? [YES NO]

182. Does it usually take you a long time to forget about it when you are not treated right? [YES NO]

183. Do your friends seem to think that you help them as much as they help you? [YES NO]

184. Are you able to tell interesting stories when you have the chance to do so? [YES NO]

185. Do your friends seem to think that you stand by them as you should? [YES NO]

186. Do you like to trade, buy or sell things? [YES NO]

187. Does it seem to you that most of your classmates are healthier than you are? [YES NO]

188. Does it seem to you that most of your friends can do things better than you can? [YES NO]

189. Have you found that it is usually someone else’s fault when things go wrong? [YES NO]

190. Do you usually take part in the things that are going on at school? [YES NO]

191. Do you enjoy collecting stamps, coins, or other things? [YES NO]

192. Do you often have a good time playing a musical instrument? [YES NO]

193. Do you think your hair is too straight or too curly to look nice? [YES NO]

194. Do you like to spend part of your time making boats, airplanes, or other things? [YES NO]

195. Are you troubled because something is the matter with your arms or hands? [YES NO]

196. Do you believe that most people like to see others do well? [YES NO]

197. Are the muscles of your arms often tense or tight? [YES NO]

198. Do you often have a stiff shoulder or back? [YES NO]

199. Do you think that the world is getting better? [YES NO]

200. Do you believe that most people spend too little time playing? [YES NO]
GENERAL DIRECTIONS: Here are some picture-questions about your health habits. Your answers will show what you really do. They will not be shown to any other pupil, and what you say will have nothing to do with your school grades. DO NOT WRITE OR MARK IN THIS BOOKLET UNLESS TOLD TO DO SO.
INSTRUCTIONS TO PUPILS

Read each picture-question carefully before marking your answer. Each question can be answered in one of three ways, depending on what you do. Now study Sample A and the directions for marking below:

Do you play in the street?

1 Most of the time I do.
2 Sometimes I do.
3 No, I never do.

If you do sometimes play in the street, then number 2 would be the answer you would choose.

IF YOU ARE MARKING ON AN ANSWER FORM, READ THIS COLUMN ONLY.

Since your answer is "2 Sometimes I do," you would mark the number 2 in the answer row for Sample A. See how this has been done on your answer form.

If you make a mistake or wish to change an answer, carefully erase your first mark. Then mark the answer you have now chosen. Do not crease or fold your answer form. Make NO marks in this test booklet.

Now, go on to page 4.

IF YOU ARE MARKING IN THIS BOOKLET, READ THIS COLUMN ONLY.

Since your answer is "2 Sometimes I do," you will draw a line under this answer in your booklet, like this:

A. 1 Most of the time I do.
   2 Sometimes I do.
   3 No, I never do.

If you make a mistake or wish to change an answer, carefully erase your first line. Then draw a line under the answer you have now chosen.

Now, go on to page 4.
REMEMBER: Mark your answers according to what you DO, not what you think is right or wrong or what you think you should do.

"1 Most of the time I do" means that it is a regular habit for you.
"2 Sometimes I do" means that you do it once in a while, but not regularly.
"3 No, I never do" means that you don’t do it at all.

1. Do you wash your hands before breakfast?
   1 Most of the time I do.
   2 Sometimes I do.
   3 No, I never do.

2. Do you eat all your breakfast?
   1 Most of the time I do.
   2 Sometimes I do.
   3 No, I never do.

3. Do you brush your teeth after breakfast?
   1 Most of the time I do.
   2 Sometimes I do.
   3 No, I never do.
4. Do you wash your hands before lunch?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

5. Do you eat all your lunch?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

6. Do you brush your teeth or rinse your mouth with water after lunch?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

7. Do you wash your hands before dinner?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
8. Do you eat all your dinner?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

9. Do you brush your teeth after dinner?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

10. Do you chew your food well?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

11. Do you try to eat foods you have not tried before?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
12. Do you drink 3 or 4 glasses of milk every day?
   1. Most of the time I do.
   2. Sometimes I do.
   3. No, I never do.

13. Do you eat fruit or vegetables between meals when hungry?
   1. Most of the time I do.
   2. Sometimes I do.
   3. No, I never do.

14. Do you wash fruit or vegetables before eating?
   1. Most of the time I do.
   2. Sometimes I do.
   3. No, I never do.

15. Do you bathe regularly 4 or more times a week?
   1. Most of the time I do.
   2. Sometimes I do.
   3. No, I never do.
16. Do you wash your hands after going to the toilet?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

17. Do you use only your own comb when you comb your hair?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

18. Do you use only your own toothbrush when you brush your teeth?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

19. Do you wash or have your hair washed once a week?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
20. Do you hang up your clothes?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

21. Do you wear warm clothes when it is cold?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

22. Do you wear rain clothes when it rains or looks like rain?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

23. Do you blow your nose gently?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
24. Do you bring a handkerchief or tissues to school?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

25. Do you put a handkerchief or tissue over your mouth when you sneeze or cough?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

26. Do you stay at home when you are sick even when you have a cold?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

27. Do you drink water from the fountain without your mouth touching the faucet?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
28. Do you keep pencils out of your mouth?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

29. Do you keep your fingers out of your mouth?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

30. Do you sleep at least 10 or 11 hours each night?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

31. Do you wait for the signal and look both ways before you cross the street?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
32. Do you walk on the side of the road to your left when you need to walk in the street or road?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

33. Do you wash small cuts with soap and water and then put a bandage on them?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

34. Do you allow yourself to get sunburns that are painful?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.

35. Do you say nice things to other children when they do well?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
36. Do you exercise outdoors each day?

- Most of the time I do.
- Sometimes I do.
- No, I never do.

37. Do you try to make friends with other children?

- Most of the time I do.
- Sometimes I do.
- No, I never do.

38. Do you hide your feelings when unhappy?

- Most of the time I do.
- Sometimes I do.
- No, I never do.

39. Do you act friendly to people you do not like?

- Most of the time I do.
- Sometimes I do.
- No, I never do.
40. Do you use a hairpin or other sharp object to clean your ears?

1. Most of the time I do.
2. Sometimes I do.
3. No, I never do.
# Health Behavior Inventory

## Elementary Level

### 1. Personal Health
- 11 items
- 

### 2. Personal Cleanliness
- 7 items
- 

### 3. Nutrition
- 7 items
- 

### 4. Safety
- 5 items
- 

### 5. Community Health
- 5 items
- 

### 6. Infection and Disease
- 11 items
- 

### 7. Mental Health
- 4 items
- 

### 8. Dental Health
- 3 items
- 

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**Work Sheet and Profile**

Directions for both group and individual analysis are found in Part 2 of the Manual.

<table>
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<tr>
<td>Grade</td>
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<tr>
<td>Date</td>
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<td>School</td>
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<table>
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<td>Date 1</td>
<td>School 1</td>
</tr>
<tr>
<td>Grade 2</td>
<td>Date 2</td>
<td>School 2</td>
</tr>
</tbody>
</table>

| Norm Group % of Preferred Response-Female | 66 | 65 | 57 | 59 | 53 | 59 | 62 | 34 |
| Norm Group % of Preferred Response-Male  | 64 | 56 | 60 | 54 | 48 | 56 | 50 | 26 |
| Norm Group % of Preferred Response-Composite | 65 | 61 | 59 | 57 | 50 | 58 | 56 | 30 |

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* Item Number  
† Preferred Response  
‡ % of Preferred Response