HEALTH KNOWLEDGE AND PRACTICES OF THE GRADE VI PUPILS IN THE URBAN AND THE RURAL AREAS OF SAMAR: AN EVALUATION

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APPROVAL SHEET

In partial fulfillment of the requirements for the degree of Master of Education (M.Ed.), this thesis entitled, "HEALTH KNOWLEDGE AND PRACTICES OF THE GRADE VI PUPILS IN THE URBAN AND THE RURAL AREAS OF SAMAR: AN EVALUATION," was prepared and submitted by MARIANO B. BARON, who having duly passed the comprehensive examination with the rating of PASSED is hereby recommended for oral examination.

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March, 1985

D E D I C A T I O N

To the Success

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ABSTRACT

This study evaluated the health knowledge and practices of the Grade VI pupils in the urban and the rural areas of Samar. This study uses the descriptive method of research. Inasmuch as the present study is concerned mainly with the evaluation and comparison of the knowledge and practices of the Grade VI pupils in Health. Twenty-nine percent of the teachers did not earn health units in college. Books available were limited. There were few health seminars conducted. There was no sufficient time given for health. Pupils obtained very low scores in the test. There was significant difference in the health knowledge as well as in the good and bad practices of the Grade VI pupils at 0.05 level of significance. For the recommendation, more in-service training in health should be given. More books, guides, and references should be made available. Enough time should be given to health education. Teachers should follow religiously the time schedule for each subject. Administrators should see to it that all areas in health education are taken care of by teachers accordingly.

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Chapter 1

THE PROBLEM

Introduction

Nowadays, health problems are very common among the people. They are felt almost everywhere. Human and animal wastes are found in cannals, roadsides, sea-walls, and even in backyards, some of which are wrapped in papers and plastic bags. Garbage and rubbish are scattered in conspicuous places, emitting foul odors that cause public disturbances. Emaciated and sickly children are seen along the streets of big towns and cities. These conditions are aggravated by annoying sounds of vehicles heard day and night, by polluted air from factories and dusty streets, and polluted water sucked by leaking pipes. The above conditions are self-evident facts which need no written records for proof.

These multifarious health problems may be the offshoots of inadequate health knowledge and refusal to implement correct health practices. Health and sanitation have become a major problem because some people are not so much imbued with the importance and the value of cleanliness. Malnutrition is visible even among the children of well-to-do families. This may be due to lack of knowledge of the proper nutrition concepts of the parents. Children of rich people tend to despise leafy vegetables not knowing their

nutritive values. This is clearly seen in the statement of Davis when she said:

> Perhaps up to this time you have taken health for granted. If you have felt well, that was fine; if you were ill, that was hard luck. In either case you may have seen no connection between how you felt and what you eat. Actually, what you eat determines to a very large extent how you feel. Furthermore, it determines how you look; whether or not your eyes are bright, your skin smooth and ruddy in color, your hair glossy, and your teeth free from decay.[1]

The problems cited can only be remedied by proper and adequate health instruction among the people especially the youth who are still in the elementary grades. The government has tried its best to minimize health problems through its different agencies, such as the Ministry of Health which is given the task of seeing to it that the health of the people is safeguarded. However, this agency focuses most of its attention on health services and less on health instruction. To make up for this seeming deficiency in the health instruction, the school is given the important role of achieving the desired efficiency. Health instruction is incorporated in the school program so that the children attending classes learn the necessary health knowledge and practices even at an early stage of life. The school, therefore, must do its part to make health instruction a reality.

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[1] Adele Davis, A.B., M.S., Vitality Through Planned Nutrition (New York: The Macmillan Co., 1955), p. 1.

In view of the presence of the many health problems today, this writer believes that there is something wrong somewhere in the school health instruction. To determine therefore whether health instruction is properly and adequately done in school, this writer attempted to evaluate and compare the health knowledge and practices of the Grade VI pupils in the urban and in the rural schools in the Division of Samar. He also looked into the educational background of the teachers, as well as the materials used in health instruction. Hopefully, the findings of this study will awaken health supervisors, school administrators, and teachers to put more emphasis on the weaker aspects of health education in the elementary grades.

Theoretical Framework

This study revolves around the theory enunciated by Clifford R. Anderson when he said:

> We believe man was 'made in the image of God', that he might reflect the glory and love of his Maker. He was placed in a beautiful garden home, free from tension and stress, that there he might develop a balanced personality and a mind in tune with the Infinite. We believe this is the ideal for everyone of us today. And if all parents believed so, we would soon have better homes, better communities, and better world.[2]

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[2]Clifford R. Anderson, M.D., Modern Guide to Health (Manila: Philippine Publishing House, 1968), p. 15.

It has been observed by this writer that the homes, the communities, and the world today are far different from the home of the first man in terms of happiness, contentment, stress and tension. The present homes, communities, and the world are full of stresses and tensions so that man is in constant state of anxiety. This constant anxiety can only be erased or minimized if the people are imbued with the proper concepts of healthful living.

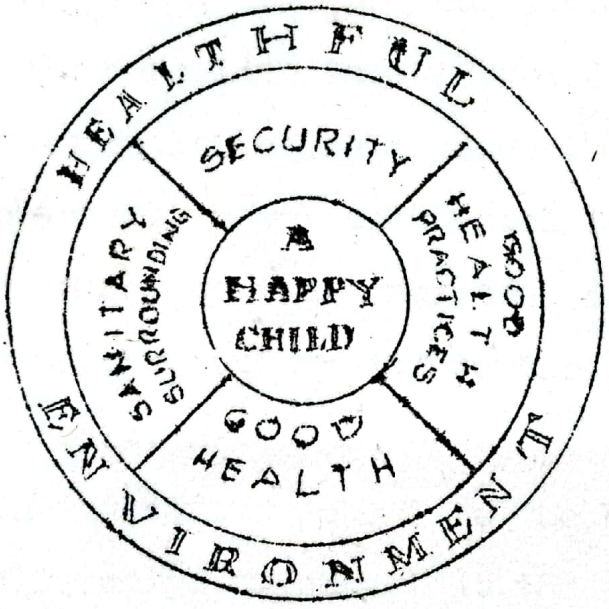

Figure 1. A happy child is one who is surrounded by a healthful environment in terms of good health, good health practices, clean surroundings, and security.

Healthful living embodies a wide range of activities including physical, mental, spiritual, moral and social functions, which when practised according to accepted standard of society, will make human life worth living.

The homes, the communities and the world where people live are now filled with problems, the makers of which are men themselves. Society is now in turmoil because men have not assimilated the right social values. People are malnourished because they have not imbibed the values of proper nutrition. The surroundings are filled with dirts and all sorts of unsightly objects because men have not grasped the importance of cleanliness. All the above mentioned ills of the present have natural causes which when corrected, will help make life in this world worth living.

It is the intention of this study to find out the causes of these physical, moral and social ills prevalent in the Division of Samar so that once they are pinpointed, remedial measures may be recommended to improve the living condition of the people.

It is a fact that the school is the best reservoir of knowledge. Children go to school at the time when they first make use of their reasoning power. It is at this stage of life that values are developed according to the training of the teacher. Since the present children will compose the adult citizens of tomorrow, it is of paramount importance that they be given the proper education and guided in the development of proper values so that when they grow up, they will become efficient, effective, happy and contented citizens.

Conceptual Framework

This conceptual framework gives the readers the bird's eye view of the study. As seen at the extreme left side of the paradigm, the evaluative instruments consisting of health knowledge test, health practices checklist and questionnaire, were applied to the children in both the urban and the rural areas of Samar.

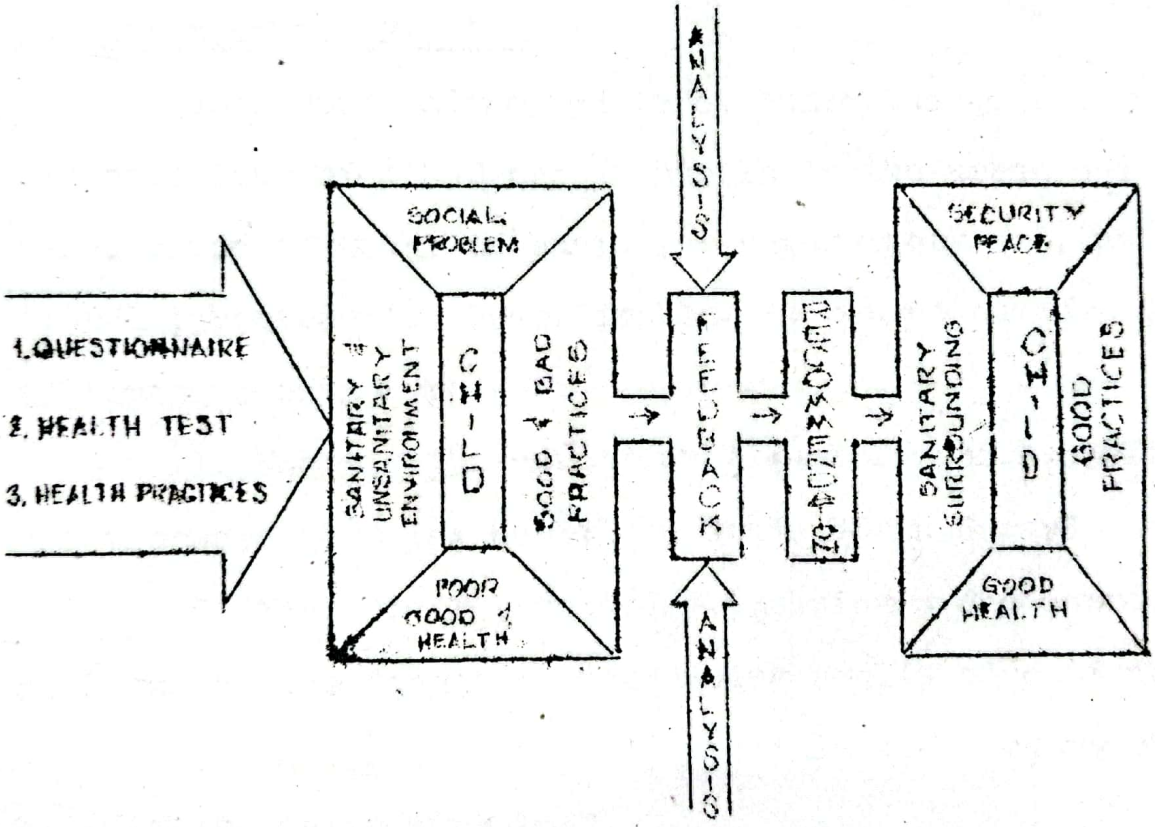

Figure 2. The children subjected to different evaluative instruments aimed at their improvement.

After the administration of the instruments, the results are evaluated by subjecting them to critical analysis. The evaluative instruments are applied to the children who

are surrounded by an environment of both positive and negative qualities. After the application, the feedbacks are obtained which are later on subjected to critical analysis. After the analysis is made, recommendations are given. If all the recommendations are complied with, an improved environment would be created thereby developing a new kind of individual: the healthy, happy and contented child.

Statement of the Problem

This study attempted to evaluate the health knowledge and practices of the Grade VI pupils in the urban and the rural areas of Samar as basis for supervisory and instructional improvement. Specifically, it sought answers to the following questions:

1. What is the educational qualification profile of the teachers teaching health in Grade VI in Samar?

2. What are the methods, techniques and approaches employed by the teachers in teaching health education?

3. What instructional materials are used by the teachers in their teaching?

4. How much time is alloted to health education?

5. To what extent do the pupils gain knowledge of health in relation to the prescribed standard?

6. How is the knowledge gained by these pupils manifested in their practices in school or at home?

Hypotheses

1. There is no significant difference in the health knowledge of the Grade VI pupils in the urban and the rural areas of Samar.

2. There is no significant difference in the good health practices of the Grade VI pupils in the urban and the rural areas of Samar.

3. There is no significant difference in the bad health practices of the Grade VI pupils in the urban and the rural areas of Samar.

Importance of the Study

This study can be of value to the pupils, teachers, administrators and even to the general public. Inasmuch as this study evaluated the health knowledge and practices of the Grade VI pupils, the findings can be utilized by anyone, in whatever field he may be, as far as health is concerned. This study can help the pupils because they will be able to evaluate their learning in health. Through the result of the test they can tell how they stand and make the necessary improvement in their performance.

Through this study teachers in health can develop an insight into the actual condition of the knowledge and health practices of the pupils thereby helping them to make the necessary adjustments in their teaching.

To the administrators, this study can be useful because it will establish the basis for making critical supervision and evaluation of health instruction. With the findings of this study, the administrators can provide ways and means for efficient and effective teaching so that real learning can take place, thus producing visible and measurable results in the physical, mental and moral behavior of the pupils. The administrators can likewise be guided on what to do to improve the total teaching-learning situation in the division.

To the general public this study will also be of value because this will serve as a reference material in health education.

Scope and Delimitation

This study sought to evaluate the health knowledge and practices of the Grade VI pupils in selected schools in the Division of Samar. It also looked into the qualifications of the teachers teaching health, the materials used, the methods employed and the length of time utilized.

The focus of study was the Grade VI pupils because this is the grade level presumed to have more coverage of the subject matter prescribed for the elementary grades. Since the study covered the Division of Samar, only samplings of the districts were considered. Specifically, this study was limited to 20 elementary schools in the ten sample districts, each district represented by a central school, here

referred to as urban and one barangay school also referred to as rural school. The urban and the corresponding rural schools tested were Sta. Margarita and Napuro; Gandara and Concepcion; Tarangnan and Sta. Cruz; Catbalogan I and San Andres; Catbalogan III and Silanga; Wright and Pabanog; Calbiga and Canticum; Villareal and Egot; Sta. Rita and Magsaysay; and Basey and San Antonio.

This study was conducted in the school year 1984-85.

Definition of Terms

Approach. A way of arriving at an objective.[3] In this study, approach refers to the ways of teaching a given subject which were introduced by some educators. These are conceptual, experiential and process approaches.

Evaluation. An evaluating or being evaluated; valuation.[4] For this study, evaluation means the act of finding out the extent or coverage of the pupils' knowledge on health and how they put this knowledge into practice.

Health. This term refers to the physical and mental well-being; normality of physical and mental functions.[5] For the purpose of this study, the term "health" also refers

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[3]David B. Guralnik and Joseph H. Friend, General Editors, Webster's New World Dictionary of the American Language (Cleveland and New York: The World Publishing Co.,1951),p.72

[4]Ibid., p. 502. [5]Ibid., p. 668.

to the subject area being taught in school. It is a body of facts and concepts taught to the pupils in the classrooms.

Health knowledge. This means the awareness, consciousness or understanding of different health facts and concepts taught in the classrooms.

Health practices. This refers to the behavior of the children: what they are doing or not doing as far as health habits are concerned.

Health problems. This signifies the conditions, situations or state of things which are not in conformity with clean and healthful living.

Instruction. An instructing, knowledge, information, etc. given or taught.[6] For the purpose of this study, instruction means the act of teaching, the act of giving directions or commands to the pupils.

Method. A way of doing anything; especially, a regular, orderly, definite way of teaching.[7] In this study, method refers to the four accepted procedures, namely inductive, deductive, inquiry and problem solving.

Nutrition. A nourishing or being nourished; anything that nourishes; nourishment.[8] For this study, nutrition means the practice of taking in the right kind, the right amount of food at the right time.

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[6]Ibid., 758. [7]Ibid,, p.926 [8]Ibid., p. 1009

Professionally prepared. This refers to teachers' preparation as far as health subject is concerned.

Rural. Of, in constituting the country (as distinguished from cities or town).[9] For this study, rural refers to the schools found in the barangays, usually far from the towns or cities.

Technique. The method of procedure in rendering an artistic work or carrying out a scientific operation.[10] In this study it refers to ways of teaching the subject. They may vary depending upon the creativeness of the teacher.

Urban. Of, in, constituting a city or town.[11] For this study it refers to schools in towns called central.

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[9]Ibid., p. 1277 [10]Ibid., p. 1496 [11]Ibid., p.1602

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

Health education is a subject that cannot be taken for granted. Its importance is so great that literature and studies on the subject have multiplied during the last few decades. As supplementary sources of information, this writer reviewed some related literature and studies to support his views on the subject.

RELATED LITERATURE

On Healthful Living

Many authors have come up with excellent books on health. This is so because these authors realized the importance of health to men. Health is a broad subject covering ten specific areas. Some authors specialized on one or two areas while others wrote on many areas, but of course, in a not so detailed manner.

Health is such an important subject that, a person deprived of the fundamental concepts of health knowledge and practices, can never be happy in this world. In fact happiness itself is the by-product of good physical, mental, and moral health. Devoid of this physical, mental, and moral health, a person can no longer be considered a man

in the real sense of the word but only a mere creature fighting for a simple animal existence.

Health and illness. Diehl, in his book on health, wrote many good things about this topic. His ideas are worthwhile quoting, hence the quotation below:

> In planning a campaign or program for better health, a health officer surveys the situation of the community for which he is responsible and concentrate his attention first upon problems of major importance. The measure of importance which he uses are the death rates and sickness and disability rates of various diseases and conditions .... For example, accidents, heart disease, and cancer are leading causes of death in most age group; yet mental illness, colds and other respiratory diseases, and conditions affecting the muscular, nervous, and skeletal system, such as arthritis, are even more important as causes of illness, disability, and loss of time from school and work than many of the more serious diseases.[7]

Mental health. In the United States, considered the richest country in the world, the people are not totally spared from the different diseases that afflict other countries. This is probably due to the lack of knowledge of the health concepts among some of its less fortunate citizens. In that same book Diehl said:

> Mental illness continues to be a major cause of disability in this country. Federal and state governments maintain almost half a million hospital beds for patients in mental illness. One out of

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[7]Harold S. Diehl, M.A.,M.D. and Stewart Craig Thomson, M.S.,M.D.,M.P.H., Textbook of Healthful Living (New York: McGraw-Hill Book Co., 1960), p. 23.

> every twelve children this year in the United States at some time in life will suffer a mental illness severe enough to justify hospitalization.[8]

Health consciousness. In this modern time, man himself has become the cause of diseases by destroying the natural order of the environment. Because of his desire for a better life, man had invented so many things that could help him live a happier life, unfortunately however, these inventions carry with them some undesirable results. For this hunger for change, Johns and his associates had this to say:

> Operating under the additional delusion that 'nature would take care of it all,' we developed - and then poured into our environment - the chemical products of our technological wizardry and the wastes of our production and consumption. Our haste to 'succeed', coupled with the fact that the right hand seldom has known or cared what the left hand was doing, have led us to alter the shape, the chemical composition, and thus the biological characteristics of our environment in ways and at a rate that far exceeds our ability even to identify much less to evaluate the health consequences of our actions.[9]

Right kind of food. Food, although the primary source of life for man, if taken in excessive quantity, can become a poison that can kill the very same person. It is therefore necessary that man knows the right kind and amount

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[8]Ibid., p. 51.

[9]Edward B. Johns, Ed.D., Wilfred C. Sutton, Ed.D. and Barbara A. Cooley, Dr.P.H., Health for Effective Living (New York: McGraw-Hill Book Co., 1975), p. 114.

of food to eat so that he can really benefit from it. Without the knowledge of the proper food intake, man is liable to waste time, money and effort in his desire to eat for survival. There are parents who can very well afford to give nutritious food to their children but they do not do so because they do not understand the value of nutrition.

Food and alcohol. Much has been said about food and drinks, most especially about liquor. The physiological effects of alcohol depend upon its concentration in the cells, tissues, or organs. When a small amount is concentrated in the cells, alcohol serves as food by stimulating their activities. A high concentration of alcohol depresses the cell functions, and an extremely high concentration seriously injures the cells and may kill them.

Man-made illness. Sometimes sickness comes to a person because of his own making. Some diseases occur not because of external factors but rather mainly due to the internal behavior of man himself. Several diseases are called psychosomatic diseases simply because they have their origin not from outside sources but from within man himself. A good example of such a disease is peptic ulcer, a disease that can be attributed to man himself as the chief source. For more authoritative explanation, Diehl is once more quoted.

> Ulcer of the stomach and duodenum are a common cause of so-called 'chronic dyspepsia.' They are called 'peptic ulcers' because they occur on

> parts of the gastric and duodenal walls which are bathed in gastric juice. About one person out of ten at sometime will have ulcer. Ulcers usually result from an excessive flow of the stomach's acid-containing diggestive juices. It is recognized that nervous tensions, worry, and emotional strain, even more than food and drink stimulate excessive flow of these juices.[10]

Transfer of illness. Some diseases are communicable while others are not. It is essential that one knows which disease is communicable and which is not so that preventive measures can be made. A person who knows which diseases are communicable can easily guard himself against them by avoiding unnecessary contact with the sick person. For this reason Diehl warns all when he writes:

> Practically all communicable diseases are contacted from human or animal sources, which can be called 'reservoire of infection.' In fact the greatest source of infection of man is some other person. This person may be one who is actually sick with the disease or one who has such mild attack of the disease that it is not diagnosed, in which case he usually continues about his duties exposing others.[11]

Health ignorance. Ignorance is a real hindrance to progress. In whatever field of endeavor, ignorance of that field is likely to cause one's failure because he would lack the necessary elements to serve him as the framework of his ideas. In any case, ignorance, even just on ordinary

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[10] Diehl, op. cit pp. 95-96

[11] Ibid., p. 158

things, means a lot. Take for example water, one of the best and the cheapest things in life, which is just taken for granted. Many physicians claim that water is the best medicine. Man is urged to drink at least six glasses of water a day, but how many people follow such advice? Many do not follow the admonition because they are ignorant of the importance of water in their lives.

Health and water. In support for the claim that water is really important, Diehl once said that water can very well be considered the most important single constituent of the living organism. He said that man can survive for a month or longer without food but death would occur within a few days if he is deprived of water. He further stated that about two-thirds of the weight of an adult is due to water.[12] Many physicians prescribe water as a cure for some sickness, which practice is termed as 'water therapy'.

Health and sex. Health education does not focus its attention only on diseases but also takes into account the natural growth and development of man. Health considers the child from birth, the infant stage, the adolescent stage to his adult life. As such, it is important for one to have the basic knowledge of the processes of growth and development so that necessary adjustments can be made as the

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[12]Ibid., p. 65.

child marches forward in his long journey to adulthood. It is essential that every boy or girl understands his or her nature so that he or she can adopt the required measures for a happier life. Johns and his associates have this to say about growth and development:

> Becoming aware of one's sexuality is a long gradual process developed through the years. From the time a child is able to communicate with the parents, he or she begins to formulate a sense of self-awareness .... The individual experiences physical, emotional, and social changes which contribute to the development of sexual desires and assign a male or female role in reproduction and some sexual behaviors.[13]

Parent Education

The compilers[14] of the series of studies for the Mental Health Division, Department of National Health and Welfare of Canada noted that the term 'parent education' is commonly used to cover the many ways in which parents are assisted in bringing up physically and emotionally healthy children. This applies to everything from doctor's advice to hints picked up at a parents' meeting.

Careful studies by professional people have yielded much information about how man develops physically and emotionally, how the mode of living affects life and those of

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[13] Johns, op. cit. p. 203.

[14] Publishers, Child Training Vol. 1. Modern Home Library (Manila: Philippine Publishing House, 1964), p. 11.

his children. Many adults live unhappy, maladjusted lives because of the way their children spend their lives, and again the question arises: What can man do about a child's upbringing to help him develop into a reasonably happy, well-adjusted adult?

Parent education supplies an abundance of sound advice, but problems often arise when it comes to practical application. Why is this so? Information is most useful when fitted to the individual family situation. Emotional experiences in childhood are related to development, however, this does not mean that everything done to a child under five is going to affect him either for good or bad for the rest of his life. Hence making mistakes need not cause the anxiety it often does in some parents. For example, when experts say, "too much frustration isn't good for a baby," it does not mean "never frustrate the baby." It is for the parents to determine just what may be frustrating, where it is too much and when it is necessary. This principle should be applied to all "rules" for bringing up children.

Development of Personality in Childhood

Gaerlan et. al.,[15] in their book on mental hygiene said that the mental health of the nation is contingent upon

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[15]Josefa E. Gaerlan, M.A., Delia A. Limpingco, M.A. and Dolores M. Zaide, M.A., Principle of Mental Hygiene (Quezon City: KEN Inc., 1969), p. 45.

the degree of mental health achieved by its children. The mental health of the children is dependent upon many factors brought about by culture and standards. Behavior patterns and personality may be determined by the environmental differences in the process of development.

During the child's second or third year, he frequently becomes stuborn even to reasonable suggestions and wishes of others. This resistance to adult authority is a sign of the child's growing independence. It is an attempt on the child's part to assert himself and to make the world conform to his wishes. Later, with skillful adult guidance the child learns by experience that he can express his difficulties in a more reasonable way than just through resistant behavior.

Next to feeling loved, his greatest personality need is for security. He has to feel that he counts on people and things when he needs them. A child should feel secure in the tought that he is loved, he is wanted, and that he is an important member of his family. Without this feeling of being loved and being wanted, the child becomes unhappy.

Better Health for the Barangays

Flavier[16] stated in his book that 75 percent of the

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[16]Juan M. Flavier, Doctor to the Barrios (Manila: The Regal Printing Co. Inc), p. 133.

nation's population live in the rural areas. By a numerical coincidence about 75 percent of the causes of deaths among the rural folks are communicable and preventable diseases. From these two figures alone, one can see the enormity of the loss in productivity from avoidable deaths. In term of pesos, this is a staggering annual loss for the nation. It is even greater when you include the expenses for medical care during illness. There is also the factor of mental anguish, the sense of insecurity and the disturbed tempo of living.

Here are few more statistics: only 26 percent of all cases resulting in deaths have been seen by a physician. In the rural areas only about 32 percent of all births are attended to by a licensed midwife or doctor. Fewer than 20 percent of all the homes in the Philippines have a sanitary method of waste disposal, including those in urban areas. There is no program of garbage disposal in the rural areas. Water sources are often polluted and unsafe to drink.

The Rural Health Unit (RHU) program of the Philippines is reputed to be one of the best in East Asia. However, limited personnel and financing stifle the national effort toward better health for rural people. Having a good plan is one thing, but rendering effective service in the barangays is quite another.

What is really needed? More money is not enough.

To expect more personnel is not realistic. Just getting enough doctors and nurses to serve the barangays is a problem. It is a matter of economics. The doctors and nurses find that it is more lucrative to go abroad, which leaves the barangay people with very little service. To minimize the problem the government launced the Philippine Rural Reconstruction Movement (PRRM) where the training of local auxiliary health workers are emphasized. They can be called upon for first-aid work, environmental sanitation follow-up maintenance of the Barangay Health Center, and assistance to visiting RHU personnel. This is indeed a laudable program because it looks into the health of the rural people.

RELATED STUDIES

To secure some ideas about the different studies on health knowledge of the Filipino children, a survey was made on the theses found in the different libraries in Catbalogan, Tacloban City, and even as far as Manila. This writer found several research projects, the contents of which are discussed below.

Olaes[17] attempted to identify the health knowledge and practices of the fourth year students of three public

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[17] Virginia Aure-Olaes, "Health Knowledge and Practices of Fourth Year Students in Cavite," (unpublished Master's thesis, Philippine Christian College, Manila, 1968.)

high schools in Cavite. She constructed a 100-item test based on the Health Textbook and guide used by the teachers. She made the table of specification dividing the test items among the ten areas of health. After the preparation of the test, it was presented to some health teachers for further improvement and later it was pretested in 30 students who found the test to be within their level and were able to answer them without much trouble.

After the administration of the test to 608 students, Olaes found out that in general, the fourth year students had inadequate health knowledge. Of the 100 items, only 16 items were adequately learned by 57 percent of the students. Fifty-six were satisfactorily learned by only 30.1 percent of the 608 students who participated. Generally, the students also revealed an inadequate knowledge in all the major areas because no area obtained an average of 50 percent.

De Guzman[18] made a study to determine the effectiveness of health instruction in Grade V in the public schools in Angeles City. A documentary analysis of the course of study and teaching guides for the Grade V was made to find out the areas and objectives in teaching health. She also

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[18]Esmeralda de Guzman, "A study of the Effectiveness of the Health Instruction in Grade V in the Public Elementary Schools of Angeles City", (unpublished Master's thesis, National Teachers College, 1969.)

gave a health knowledge test of 100 items to 2,425 Grade V pupils from 13 elementary schools in the city. After correcting the test papers, she discovered that health teaching in the whole division was not effective because the arithmetic mean was only 47.55 which meant that the pupils answered correctly less than half of the test questions. This further meant that the pupils of the division learned less than half of the health knowledge facts contained in the health course of study for the grade.

As a result of her study, she recommended that the teachers of Angeles City exert more effort in imparting health knowledge to the children.

Caronongan[19] made a normative survey on the instruction in health and science in the public schools in Pangasinan for the purpose of proposing measures for improvement in these subjects. His study dealt on the following: 1) scope and sequence of the subject, 2) methods employed, 3) instructional materials available, and 4) professional education of the teachers.

Caronongan discovered that the scope and sequence of the subject matter was primarily determined by the tea-

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[19] Arturo Caronongan, "A Normative Survey of the Schools in Pangasinan", (unpublished Master's thesis, University of the Philippines, 1970).

ching guides and that the teachers clung to a certain definite method to the exclusion of other methods. He further noted that the instructional materials available were inadequate and that the community resources were not utilized to the fullest extent. With regard to the teachers, he noted that they were fairly adequate in their preparedness.

Reyes[20] in her study on "Health Misinformation of Elementary School teachers and Their Implication to Health Education, made a normative survey among the elementary teachers in the division of Olongapo City on their misinformation about health. She constructed a true-false test consisting of 95 items, 61 of which were false and 34 were true. It is a fact that there are many misconceptions about health and these misconceptions were even found among the teachers.

For her respondents, she selected a total of 150 teachers teaching health. After evaluating the test given to the teachers, Reyes found out that misconceptions about health were also observable among the teachers.

Rodriguez[21] made a study of the "Health Misinfor-

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[20]Perla L. Reyes, "Health Misinformation of Elementary School Teachers and Their Implications to Health Education" (unpublished Master's thesis, Ortañez University, Manila, 1980).

[21]Paz Pereyra Rodriguez, "Health Misinformation of the Grade Five and Six Pupils" (unpublished Master's thesis University of the Philippines, Diliman, Q.C., 1977).

mation of the Grade V and VI Pupils" of Bato East and West Districts in the province of Catanduanes. She also formulated a true-false test consisting of 80 items. It was divided into two forms; A and B. Form A consisted of 10 true and 41 false items. Form B consisted of 10 true and 39 false.

For this study Rodriguez made use of 502 pupils as respondents who were selected by using the stratified random sampling. Her study revealed that health misconceptions was rampant among the Grade V and VI pupils from the two districts tested.

Perlada[22] made a study on "Evaluation Practices in Health Instruction of Elementary Classroom Teachers in the District of Rizal." She formulated evaluation practices checklist for the 118 classroom teachers in the district of Rizal. The teachers were made to check the practices they used during their evaluation practices. In this study Perlada found out that classroom teachers were using several ways of evaluating health instruction.

Relationship with the Present Study

The present study is related to the studies mentioned

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[22]Conchita Villanueva Perlada, "Evaluation Practices in Health Instruction of Elementary Classroom Teachers in the District of Rizal,"(unpublished Master's thesis, Saint Vincent's College, Dipolog City,1976).

in the sense that they all deal with health education. As far as the number of items are concerned, two tests were composed of 100 items, one was composed of 95 items and the last was composed of 80 items. This study is composed of 100 items.

Olaes made the study on health knowledge and practices, the same topic also that was undertaken by this writer, with the difference only in the educational level of the respondents. Olaes used the fourth year high school whereas this study used the Grade VI pupils.

In the case of de Guzman, she used the Grade V pupils in Angeles City while the current study was conducted in the Division of Samar among the Grade VI pupils.

The study of Caronongan is similar to this study in that both took into account the materials used by the teachers, the methods employed, and the educational qualification of the teachers.

To the studies of Reyes and Rodriguez, the present study is somewhat related in the sense that they all deal with health. Reyes evaluated the teachers on their misconceptions about health. Reyes believed that even the teachers were not spared of the many misconceptions which are prevalent among the people. If teachers have misconceptions, then it would follow that their misconceptions or misinformations would be transmitted to their pupils. Reyes' study

differs from this present study in that the present study does not only look into the misinformation but also the information they have about health as evidenced by the units they earned in health.

The study of Rodriguez and the present one are related because both studies evaluated the pupils' knowledge about health. However, they differ in their objectives. Rodriguez wanted to find out the misinformations of the Grade V and VI pupils whereas the present study focused on the correct health information of the Grade VI pupils.

Perlada's study is also related to the present study in the sense that both studies dealt with teachers' activities. Perlada evaluated teachers' practices on evaluation whereas the present study evaluated the methods of instruction. The former was more concerned with the ways of evaluating instruction while the present one is more concerned on the ways of instructing children, hence their similarities and dissimilarities.

The present study differs from those of Olaes and de Guzman in that the two studies were mostly concerned with the outcomes of instruction as revealed by the tests administered to them. The present study, however, looked not only into the outcomes of learning but also into the processes of learning, the methods employed, the materials used, and the educational qualifications of the teachers.

To that of Caronongan, this study differs in that Caronongan simply made a survey of the instructional materials in health and science without attempting to evaluate the outcome of such instruction whereas the present study took into account the imput as well as the output of instruction.

In a nutshell, this study is related to those mentioned earlier in terms of subject matter, respondents, objectives, methods and procedures. In fact this writer acknowledges his debt of gratitude to the different authors of these studies because they, in one way or another, helped him improve and enrich his work.

Chapter 3

METHODS AND PROCEDURE

This chapter deals on the instruments and methods used in gathering the data and the reasons for their selection. It also takes into account the respondents, how they were selected, the method used in the sampling, and finally the procedure used in gathering the data. In short, this study uses the descriptive method of research. The specific discussion about the instruments, methods, and procedure are given below.

Instruments

Insamuch as the present study is concerned mainly with the evaluation and comparison of the knowledge and practices of the Grade VI pupils in health, the following instruments were used in gathering the needed data: (1) Health Knowledge Test composed of 100 items for Grade VI pupils; (2) Health Practices Checklist for the pupils; and (3) Questionnaire for the health teachers.

Health knowledge test. The items in the health knowledge test used in this study were taken mostly from the standardized test developed by Cortez. Seventy-six items were taken from her test while this writer prepared another 24 items to complete a 100-item test. The 24 items prepared

by this writer were first presented to several health teachers in the District of Wright for their evaluation and comments. Following the teachers' comments and recommendations, the test items were then revised and administered to the Grade VI pupils in Jiabong and Hinabangan urban schools for a dry run. The same test items were also given to the rural schools of Pabanog, in Wright and Concepcion, in Gandara. The pupils' comments were also taken into consideration and another revision was made before their finalization.

The test was a multiple choice type. For each statement four alternatives were given one of which was correct based on health knowledge and practices. The children were asked to select the correct answer by encircling the letter of that answer.

The apportionment of the test items among the ten areas was based on the importance of each area in relation to the whole child. The areas on "Growth and Development" and "Prevention and Control of Diseases" were given the most items, with 13 each, based on the fact that the pupils tested were still in their growing stage and therefore should have more knowledge on things that would help them in their proper growth and development.

"Nutrition" and "Emotional and Social Health" were also given 12 items each because of their importance to the child. A child, in order to grow properly and well, should

have proper nutrition. He should know what food to eat, how much and how often. "Emotional and Social Health" was ranked with "Nutrition" on the ground that the child must not only grow physically but must also grow emotionally and socially. Without proper social and emotional growth, the child would become a problem to himself and to society.

"Safety and First Aid" was given 10 items. This was the average. "Personal Hygiene" was given nine while "Care of the Eyes, Ears, Nose and Throat" together with "Dental Care" and "Exercise, Rest, Relaxation and Sleep" were each given eight items. This does not mean that these areas are not important. All areas in health are important but in varying degrees depending upon the circumstances. The last three mentioned areas were given eight items each because they belong to the group of lesser needs in relation to the children's growth and development.

"School, Home and Community Health" was given seven items, the least number, because of its newness as an area in health education. Health texts and other references and even Cortez[23] did not include this area in her standardized health knowledge test preparation. Because of its recency

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[23]Camila C. Cortez, "The Development of a Standardized Health Knowledge Test for Grade VI Elementary School Pupils," (unpublished Master's thesis, Philippine Normal College, Manila, 1970).

and the pupils' unawareness of the area, only seven items were assigned to it.

Health practices checklist. The health practices checklist for Grade VI pupils was prepared by this writer. The checklist consisted of 25 good health practices and 25 bad ones mixed up altogether. Each practice was divided into a five-step category, namely "Always", "Very Often", "Often", "Seldom", and "Not at all". These categories were also given arbitrary weights of five for "Always", four for "Very Often", three for "Often", two for "Seldom", and one for "Not at all". The pupils were made to check the space for each category where their practices fall.

Questionnaire for health teachers. The questionnaire for health teachers was also prepared by this writer. This instrument asked the teachers about their educational attainment, the number of health units earned during their college studies, the number of health seminars attended, and the materials used in their teaching. The teachers were also requested to list down the different textbooks and references they used. This was done to find out what materials were used by the health teachers in the Division of Samar.

The health practices checklist for pupils and the questionnaire for teachers were first submitted to the pupils and teachers in the schools mentioned above for a dry run. Both the pupils and the teachers were requested to

give their comments and recommendations on how to improve the instruments. The pupils were asked if the terms used were within their level of understanding. Those which were found difficult were replaced with easier ones for better comprehension. The teachers were also requested to give their suggestions to improve the questionnaire presented to them. All the suggestions given by the pupils and teachers were incorporated in this instrument.

The Respondents

The selection of the schools in this study was based on their location using the purposive sampling. Since the objective was to get representative samples from the rural and the urban schools, ten urban schools in the 19 districts of the Division and the equivalent number of barangay schools were tested. Since there were several sections of Grade VI classes in the urban schools, a random sampling of the pupils from different sections was made to compose a class for the purpose of testing. In the urban schools, a minimum of 30 pupils was required to compose a class. In the urban schools with five Grade VI classes, six pupils, three boys and three girls were taken from each section using the odd number selection method. The first three boys or girls who occupied the odd numbers were the ones chosen to take the test. In urban schools where there were three, four, six or seven sections, the 30 pupils were taken proportionately from

among the different sections.

In the big rural schools with two or more sections, the same sampling method was used. But in schools where only one class for Grade VI was found, all the pupils took the test regardless of their number.

Statistical Treatment of Data

After the administration of the test, the test papers were corrected and the arithmetic mean of each class was computed to find out which class got the highest score. The standard deviation of the urban and that of the rural schools were also computed.

To determine the degree of significance of the difference between the correlated means, the t-test was made using the procedure of Downie and Heath[24] at 0.05 level.

The means of the different areas were also computed to determine the extent of the pupils' knowledge in all the areas. The checklist were likewise evaluated and tables prepared according to their categories. In the same manner the health practices checklist for pupils were evaluated and properly weighted. Finally the t-test was used to determine the degree of difference between the health [illegible] of the urban and the rural pupils.

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[24]N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper & Row, Publishers, 1974), pp.176-78.

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Educational Qualification Profile of Teachers

To answer the first question in the statement of the problem, this writer issued questionnaires to 18 urban school teachers and also to 13 rural school teachers. The respondents were requested to indicate their educational attainment by checking the space corresponding to their educational attainment printed in the questionraire. As gleaned in Table 1, of the 18 urban school teachers, nine or 50 percent have finished B.S.E.Ed. with more than 20 M.A. units;

Table 1

Educational Qualification Profile of Teachers

Educational Qualification	No. of Teachers			
	Urban:	%	Rural:	%
E.T.C. - B.S.E.	2	11.11	1	7.69
B.S.E.Ed.	1	5.55	4	30.77
B.S.I.E. (MA. units not indicated)	0	0	2	15.38
B.S.H.T. (MA. units not indicated)	0	0	1	7.69
ETC-BSE with less than 20 MA units	0	0	0	0
ETC-BSE with more than 20 MA units	4	22.22	2	15.38
BSEEd with less than 20 MA units	2	11.11	2	15.38
BSEEd with more than 20 MA units	9	50.00	1	7.60
Total	18	100.00	13	100.00

four or 22.22 percent were E.T.C. - B.S.E. graduates with more than 20 M.A. units; two or 11.11 percent graduated from the B.S.E.Ed. course with less than 20 M.A. units; another two, also 11.11 percent were holders of E.T.C.-B.S.E. diplomas; while only one or 5.55 percent was a B.S.E.Ed. degree holder. nEducationally speaking, of the 18 teacher respondents in the urban schools, 13 or 72.22 percent had more than 20 M.A. units; three or 16.67 percent had no M.A. units at all; while two or 11.11 percent have earned less than 20 M.A. units.

On the other hand, the data in the rural teachers show that four or 30.77 percent were graduates of B.S.E.Ed.; two or 15.38 percent finished E.T.C.-B.S.E. with more than 20 M.A. units; and another two, also 15.38 percent were holders of the B.S.E.Ed. degree with less than 20 M.A. units. There were also two B.S.I.E. graduates or 15.38 percent who failed to indicate the number of units earned in the masteral degree. One teacher each representing 7.69 percent indicated E.T.C.-B.S.E. and B.S.E.Ed. with more than 20 M.A. units. As far as educational attainment is concerned, of the 13 teacher respondents in the rural schools, three or 23.08 percent had more than 20 M.A. units; two or 15.38 percent had 12-18 M.A. units; while another two representing again 15.38 percent failed to indicate their M.A. units. Generally speaking, the teachers included in the study are well qualified having many masteral units.

Health Education Units Earned by Teachers

In the questionnaires issued to the teachers, they were requested to indicate the number of units earned in health. As presented in Table 2, the data shows that of the 18 urban teachers, 12 or 66.67 percent indicated having earned six units in their undergraduate studies while six or 33.33 percent responded that they had no units at all. Those who earned units were graduates from B.S.E.Ed. course where two health subjects were offered.

Table 2

Health Education Units Earned by Teachers

Number of Units	Number of Teachers			
	Urban	%	Rural	%
0	6	33.33	3	23.08
3	0	0	0	0
6	12	66.67	10	76.92
Total	18	100.00	13	100.00

Those who graduated via the E.T.C.-B.S.E. had no unit in health because no health subject was offered in that course.

The rural teachers revealed that 10 or 76.92 percent earned six units in health having graduated from BSEED course. Only three or 23.08 percent indicated having no unit because they were E.T.C.- B.S.E. graduates.

This big percentage of teachers who did not earn units in health in college could be one of the factors affecting the very low performance of the Grade VI pupils in the health knowledge test given to them.

Health Seminars Attended by Teachers

The data on the number of health seminars attended by the teachers are shown in Table 3.

Table 3

Health Seminars Attended by Teachers

Number of Seminars	Number of Teachers			
	Urban	%	Rural	%
1	5	27.78	3	23.08
2	7	38.89	6	46.15
3	3	16.67	3	23.08
4	3	16.67	1	7.69
Total	18	100.00	13	100.00

The data revealed that the urban and the rural teachers varied in their attendance in health seminars. Among the urban teachers, seven or 38.89 percent attended twice; five or 27.78 percent attended once; three or 16.67 percent attended three times; and another three or 16.67 percent attended four times.

The rural teachers also indicated having attended

health seminars as follows: six or 46.15 percent attended twice; three or 23.08 percent attended thrice; another three, also 23.08 percent attended once; and one or 7.69 percent attended four times.

This very limited number of health seminars given to teachers could be one of the causes why health instruction was inadequate among the Grade VI pupils as indicated by their poor performance in the health knowledge test given to them.

Methods, Techniques and Approaches Used

The methods, techniques and approaches used by the teachers in their teaching of health are presented in Table 4. The data show that the inductive method was the most ranking as indicated by 16 out of 18 or 88.89 percent of the urban teachers and 11 out of 13 or 84.62 percent of the rural teachers. The deductive method was ranked second by 13 or 72.22 percent of the urban teachers but it was only third among the rural teachers as revealed by nine or 69.23 percent. The inquiry method ranked third among the urban teachers indicated by 12 or 66.67 percent while it was second among the rural teachers as reported by 10 or 76.92 percent. Eight or 44.44 percent among the urban teachers used problem solving while nine or 69.23 percent from the rural areas used the same method of teaching.

As far as techniques were concerned, both the question and answer technique and socialized recitation ranked first among the urban teachers, each indicated by 16 or 88.89

Table 4

Methods, Techniques and Approaches Used

Methods/Techniques/ Approaches	Urban Teachers No.	%	Rank	Rural Teachers No.	%	Rank
Methods: Inductive	16	88.89	1	11	84.62	1
Deductive	13	72.22	2	9	69.23	3.5
Inquiry	12	66.67	3	10	76.92	2
Problem Solving	8	44.44	4	9	69.23	3.5
Techniques: Question and Answer	16	88.89	1.5	11	84.62	1
Socialized Recitation	16	88.89	1.5	10	76.92	3
Lecture	14	77.78	3	10	76.92	3
Book Reading	8	44.44	4	10	76.92	3
Dictation	7	38.89	5	6	46.15	5
Approaches: Conceptual	14	77.78	1	10	76.92	1
Process	10	55.56	2	5	38.46	3
Experiential	6	33.33	3	6	46.15	2

percent; followed by the lecture technique used by 14 or 77.78 percent; book reading employed by eight or 44.44 percent; and dictation indicated by seven or 38.89 percent. Among the rural teachers, question and answer ranked high with 11 or 84.62 percent. Next in rank were three techniques;

namely, socialized recitation, lecture and book reading, each reported by 10 or 76.92 percent. The least in rank was also dictation with 6 or 16.15 percent.

Three approaches were used by both the urban and the rural teachers. Among both groups, the conceptual approach was the most popular as reflected by 14 or 77.78 percent of the urban teachers and 10 or 76.92 percent of the rural group. The process approach was second in rank among the urban teachers with 10 or 55.56 percent but third among the rural teachers with onlyfive or 38.46 percent. Six or 33.33 percent of the urban teachers and also six or 46.15 percent of the rural teachers used the experiential approach making it lowest in rank in the urban group but second in the rural group.

From the above data, it is clear that the teachers from both the urban and the rural schools used various ways and means in their teaching. It is a fact that the ways and means employed by teachers can help to a great extent the outcome of the teaching-learning process. Children at an early age have only short attention span, thus a teacher should be wise enough to use varied methods, techniques and approaches so that the attention of the pupils may be maintained. The use of varied procedures may have influenced the Grade VI pupils in the Division of Samar thus giving them little knowledge despite inadequate materials.

Textbooks, Guides and References Used

As revealed by the data reflected in Table 5, the teachers from both the urban and the rural schools used

Table 5

Textbooks, Guides and References Used

Titles of the Books	No. of Teachers : Urban	: Rural
Texts: Your Health and Mine	0	2
Science and Health for Fil. Children	4	4
Health, Science and Me	4	2
Healthful Living	1	0
Science and Health for Better Living	4	0
Health Educ. for Elementary Schools	4	0
Our Health and Science World	1	2
Health Through Knowledge and Habits	0	1
Modern Science	0	2
Learning and Growing Through Science	1	0
Ref.: Where There Is No Doctor	1	0
Science and Health Workbook	0	1
Youth Development	1	1
Elementary Learning Continuum	1	1
Guides: Teaching Guide in Health Education	2	1
Enriched Guide in Physical Education	2	1
Patnubay sa Pagtuturo ng Kalusugan	3	0
Teaching Guide for Teachers	1	1

different books, guides and references. There were books used by urban teachers which were not found among rural

teachers. There were also books, guides and references used by rural teachers but not used by the urban teachers.

The following were the books used by either the urban or the rural teachers: "Science and Health for Filipino Children," used by four urban and four rural teachers; "Health, Science and Me", four urban and two rural teachers; and "Science and Health for Better Living" and "Health Education for Elementary Schools", both utilized by four urban teachers but not by the rural teachers. One urban teacher made use of "Our Health and Science World" and so did two rural teachers. "Learning and Growing through Science" was used by a lone teacher from the urban school but not by any from the rural group. Three books were used by rural teachers but not by those in the urban schools; namely, "Your Health and Mine", used by two teachers; "Modern Science", also two teachers; and "Health through Knowledge and Habits", one teacher.

Only three teachers from the urban and another three from the rural schools reported using references. One urban teacher reported using "Where There Is No Doctor" as a reference while a rural teacher indicated "Science and Health Workbook". Youth Development" was also mentioned by one urban and one rural teacher as their reference material. The "Elementary Learning Continuum" was also reported used by one urban and one rural teacher.

Only three kinds of guides were utilized by the teacher respondents. "Teaching Guide in Health Education" and "Enriched Guide in Physical Education" were each used by two urban teachers and one rural teacher. "Patnubay sa Pagtuturo ng Kalusugan" was used by three urban teachers but not used by the rural teachers.

Considering the number of teachers using the books, it can be deduced that the teachers in the division were using different books in their teaching of health education. No uniform textbooks, guide or refernces was used in health instruction.

As can be gleaned from the list, the books used by the teachers in the teaching of health education were mostly the texts for science where health is just partly touched. While it is true that health can be integrated in science, yet in the process of integration not all areas of health are taken care of. It would be much better if books solely for health are used in the health instruction. Using books for science as the main book for health would reduce health education to a second class subject resulting to its neglect by health teachers especially if the teacher himself has very limited knowledge about health. This condition, wherein no textbook solely for health is used in the division, made possible the very low performance of the pupils.

Instructional Materials Used by Teachers

The instructional materials used by the teachers are shown in Table 6. As gleaned from the table, pictures were ranked first by both groups as revealed by 17 or 94.44 percent of the urban teachers and 12 or 92.31 percent of the rural teachers.

Table 6

Instructional Materials Used by Teachers

Instructional Materials	Urban Teachers			Rural Teachers		
	No.	%	Rank	No.	%	Rank
Pictures	17	94.44	1.5	12	92.31	1
Posters	17	94.44	1.5	10	76.92	2
Magazines	15	83.33	3	6	46.15	5
Concrete Objects	13	72.22	4	9	69.23	3
Pamphlets	10	55.56	5.5	7	53.85	4
Periodicals	10	55.56	5.5	1	7.69	6

Posters were also used by 17 or 94.44 percent of the urban teachers and by 10 or 76.92 percent of the rural teachers. Fifteen or 83.33 percent of the urban teachers indicated using magazines while only six or 46.15 percent from the rural group reported using the same as instructional material.

Thirteen or 72.22 percent of the urban teachers reported using concrete objects while nine or 69.23 percent from the rural indicated using the same. Pamphlets were reported used by 10 or 55.56 percent of the urban and seven or 53.85 percent of the rural teachers. Ten or 55.56 percent of the teachers from the urban used periodicals while only one or 7.69 percent from the rural schools used them.

Looking at the list of instructional materials used by both groups, one can deduce that there is a slight difference in the frequency, percentagewise, except in magazines and periodicals. As far as ranking is concerned, pictures and posters tied for the first place among urban teachers but among the rural teachers, pictures ranked first and posters only second. Magazines ranked third among urban teachers but fifth among rural teachers. Concrete objects got only fourth rank among urban teachers but it ranked third among the rural teachers. Pamphlets and periodicals tied for the lowest rank among the urban group but they ranked fourth and sixth respectively among the rural teachers.

This slight difference in the use of instructional materials between the urban and rural teachers might have contributed to the slightly higher performance of the urban pupils in the health knowledge test given to them. There was also just a slight difference in their means.

Time Used by Teachers

Time element plays an important role in the teaching and learning processes. The time used by the teachers in health instruction is reflected in Table 7. The data show that 10 or 55.56 percent of the urban teachers taught health once a week, or one period each week at 40 minutes per period. Eight or 61.54 percent of the rural teachers also reported teaching health once a week.

Table 7

Time Used by Teachers

Number of Time	Number of Teachers			
	Urban:	%	Rural:	%
Once a week	10	55.56	8	61.54
Twice a week	6	33.33	3	23.08
Thrice a week	0	0	2	15.38
Integrated with other subjects	2	11.11	0	0
Total	18	100.00	13	100.00

Six or 33.33 percent of the urban teachers indicated teaching health two times a week while three or 23.08 percent of the rural teachers reported teaching the subject with the same number of times. Two or 15 38 percent of the rural teachers reported teaching health three times a week, while two or 11.11 percent of the urban teachers taught health by integrating it with other subject areas.

From the data given it is evident that most of the urban and the rural teachers taught health only once a week. This very limited time given to health by the teachers, without following the standard program, could be the main cause for the Grade VI pupils' very poor performance in the health knowledge test given to them. With very inadequate books, limited knowledge on the part of the teachers, and very little time devoted to health education, there is no wonder why the Grade VI pupils did not learn enough about health.

Age, Sex, and Number of Pupils

The age, sex, and number of pupils included are presented in Table 8. As shown in the table, a total of 552 pupils were involved in the study, 300 of whom were selected

Table 8

Age, Sex, and Number of Pupils

Ages	Urban Pupils			Rural Pupils			Sex To.		Total
	M	F	T	M	F	T	M	F	
11	13	39	52	12	26	38	25	65	90
12	67	90	157	41	59	100	108	149	257
13	24	37	61	33	32	65	57	69	126
14	10	11	21	17	15	32	27	26	53
15	2	4	6	5	2	7	7	6	13
16	1	0	1	5	2	7	6	2	8
17	2	0	2	2	1	3	4	1	5
Total	119	181	300	115	137	251	234	318	552

from urban schools composed of 119 males and 181 females and 252 from the rural schools with 115 males and 137 females. In general, of the total 552 pupils, 234 were males and 318 were females.

According to age level, the biggest number was the age 12 group with a total of 257 pupils composed of 108 boys and 149 girls. This was followed by age 13 with 126 children, 57 males and 69 females; then age 11 with a total of 90, 25 boys and 65 girls; and age 14 with 53 pupils, 27 males and 26 females. The number decreased as the age increased. Thirteen pupils were 15 years old, seven males and six females while those aged 16, there were eight pupils in all, six males and two females. The oldest of the pupils tested were five 17 year-old pupils, four males and one female.

Looking at the ages of the pupils tested, it can be said that the great majority of the respondents were within the age level for Grade VI. There were, however, a few who were already over-aged for the grade, a condition that is quite inevitable considering the present economic situation in the country, thus the government cannot afford to implement completely its compulsory education law and other pertinent laws. The Legislative branch of the government enacted many laws governing the educational system of the country, but many of those laws remained ineffective or inactive because of financial reasons.

Extent of Health Knowledge Gained by Grade VI Pupils

When the Health Knowledge Test was corrected and the mean of each class computed, it was revealed in general that the Grade VI pupils in the Division of Samar had a very low performance level. The means of the different districts are shown in Table 9. The highest mean obtained by an urban

Table 9

Extent of Health Knowledge Gained by Grade VI Pupils

Districts	Urban Schools	Rural Schools
A	43.35	34.67
B	37.63	35.82
C	35.46	35.43
D	34.54	36.36
E	34.32	33.61
F	33.73	34.28
G	33.34	31.24
H	32.43	29.42
I	32.35	30.53
J	31.31	30.36
Combined Means	34.85	33.17
Standard Deviation	3.3	2.4
Division Mean	34.01	
t-score	2.15	

school was only 43.35 and the combined mean was only 34.85, and the highest mean obtained by a rural school was only

36.36 with a combined mean of only 33.17. The Division mean was 34.01. The standard deviation among the urban pupils was 3.32 while that of the rural pupils was 2.48.

When the t-test was used, it was found out that there was a significant difference at 0.05 level. The obtained t of 2.45 was higher than the critical value of t at 0.05 which is 2.26 when there are nine degrees of freedom.

Because of these findings, the null hypothesis that "there is no significant difference in the health knowledge of the Grade VI pupils in the urban and the rural areas of Samar" was rejected at 0.05 level of significance.

The Division mean of 34.01, obtained by the Grade VI pupils in the Health Knowledge Test, is a clear indicator that the health knowledge of the pupils was very low.

Extent of the Pupils' Knowledge by Areas

To determine the knowledge of the pupils in the different areas of health, the means of the different areas were computed and their percentages determined. These are shown in Table 10. From the figures given, it is quite evident that in "Personal Hygiene" which has nine items, the urban pupils had only the mean of 2.92 or 32.41 percent while the rural pupils had the mean of 2.8? or 31.53 percent. In "Nutrition" which had 12 items, the urban pupils got a mean of 3.42 or 28.50 percent while the rural pupils got 3.46 or

28.83 percent also. In "Care of the Eyes, Ears, Nose and Throat" (EENT), of the eight items, the urban pupils got a mean of 3.26 or 40.35 percent and the rural pupils got 2.53 or 31.63 percent. Of eight items in "Dental Care", the urban pupils got a mean of 3.02 or 37.75 percent while the rural pupils got 2.92 or 36.50 percent.

Table 10

Extent of the Pupils' Knowledge by Areas

Health Areas	No. of items	Urban Pupils Mean	Urban Pupils %	Rural Pupils Mean	Rural Pupils %
1. Personal Hygiene	9	2.91	32.44	2.82	31.33
2. Nutrition	12	3.42	28.50	3.42	28.50
3. Care of EENT	8	3.26	40.35	2.53	31.63
4. Dental Care	8	3.02	37.75	2.92	36.50
5. Exercise, Rest, Relaxation and Sleep	8	3.35	41.88	3.14	39.25
6. Growth & Development	13	4.94	38.00	4.56	35.08
7. Emotional & Soc. Health	12	4.47	37.25	3.92	32.67
8. First Aid and Safety	10	3.64	36.40	3.18	31.80
9. Prevention and Control of Diseases	13	4.17	32.08	4.05	31.15
10. School, Home and Community Health	7	.35	33.57	2.13	30.43
Combined Mean		.55		3.27	

In "Exercise, Rest, Relaxation, and Sleep," with eight items, the urban pupils had a mean of 3.35 or 41.88

percent and the rural pupils 3.14 or 39.25 percent. In "Growth and Development," of the thirteen items, the urban pupils got a mean of 4.94 while the rural pupils got 4.56 or 35.08 percent. In "Emotional and Social Health," of the 12 items, the urban pupils had a mean of 4.47 or 37.25 percent, and the rural children got 3.92 or 32.67 percent. In "First Aid and Safety," of 10 items, the urban pupils had a mean of 3.64 or 36.40 percent, while the rural pupils had 3.18 or 31.80 percent. In "Prevention and Control of Diseases," of the 13 items, the urban pupils got 4.17 or 32.08 percent and the rural pupils had 4.05 or 31.15 percent. In "School, Home and Community Health," of the seven items, the urban pupils got a mean of 2.35 or 33.57 percent and the rural pupils 2.13 or 30.43 percent.

A comparison of the different percentages of both groups indicate that the pupils performed best in "Exercise, Rest, Relaxation, and Sleep," with 41.88 percent for the urban pupils and 39.25 percent for the rural pupils. Both groups showed their weakest performance in "Nutrition" with 28.50 percent each. From the above data, it can be safely said that the pupils' poor performance in the Health Knowledge Test given to them was reflected in all areas. No area had a mean above 50 percent of the items. This low performance was clearly shown by the division mean.

Good Health Practices Among Urban Pupils

When the Health Practices Checklists were issued to the pupils, the good and the bad practices were just mixed

Table 11

Good Health Practices Among Urban Pupils

Health Practices	Al. (5)	VO. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Using toothpaste when brushing	251 (1255)	39 (156)	6 (18)	4 (8)	0	300	4.79	1
Sleeping under a mosquito net	204 (1020)	76 (307)	20 (60)	0	0	300	4.62	2
Avoiding people with tuberculosis	201 (1005)	57 (228)	30 (90)	12 (24)	0	300	4.49	3
Moving the bowel regularly	121 (605)	136 (544)	26 (78)	17 (34)	0	300	4.20	4
Respecting the rights of others	89 (445)	166 (664)	24 (72)	21 (42)	0	300	4.08	5
Having clean surroundings	96 (480)	126 (504)	54 (162)	24 (48)	0	300	3.98	6
Covering the mouth when coughing	87 (435)	134 (536)	56 (168)	21 (42)	0	298	3.96	7
Resting after hard work	105 (525)	58 (232)	119 (357)	17 (34)	0	299	3.84	8
Wearing clean clothes	50 (250)	162 (648)	53 (159)	33 (66)	0	298	3.77	9
Covering the nose while in dusty places	85 (425)	109 (436)	56 (168)	35 (70)	15 (15)	300	3.71	10

Table 11 (continued)

Practices	Al. (5)	Vo. (4)	Of. (3)	Sol. (2)	NA. (1)	To.	WA.	Rank
Keeping nails short and clean	35 (175)	150 (600)	68 (204)	47 (94)	0	300	3.58	11
Having relaxation	73 (256)	64 (256)	124 (372)	31 (62)	0	297	3.55	12
Drinking plenty of water	56 (280)	82 (328)	127 (381)	35 (70)	0	300	3.53	13
Having self-confidence	56 (280)	89 (356)	116 (348)	27 (54)	12 (12)	300	3.50	14
Facing troubles squarely	36 (180)	79 (316)	151 (453)	19 (38)	15 (15)	300	3.40	15
Combing the hair properly	10 (50)	78 (312)	200 (600)	9 (18)	0	297	3.30	16
Brushing the teeth	28 (140)	115 (460	88 (264)	48 (96)	21 (21)	300	3.27	17
Taking a bath	0	70 (280,	195 (585)	34 (68)	0	299	3.12	18
Eating balanced diet	15 (75)	55 (220)	169 (507)	61 (122)	0	300	3.08	19.5
Having exercises	15 (75)	58 (232	162 (486)	64 (128)	0	299	3.08	19.5
Eating fresh vegetables	0	56 (224)	156 (468)	86 (172	0	298	2.90	21
Applying first aid during accidents	35 (175)	56 (224)	94 (282)	51 (102	64 (64)	300	2.82	22
Drinking milk	0	0	20 (0)	243 (486	36 (36)	299	1.95	23.5
Drinking fruit juices	0	0	0	286 (572	14 (14)	300	1.95	23.5
Consulting physician when sick	0	15	50	127	105	300	1.92	25

to avoid bias on the pupils' part. However, during the evaluation, the good practices were listed in one group and the bad practices in another. Each practice was rated according to the number of pupils who indicated having done the given practice.

Five categories were made for each practice with assigned weights. The highest weight was five points for "Always"; four points for "Very Often"; three for "Often"; two for "Seldom"; and one point for "Not at all".

To find the weighted average for each practice, the products of five categories were added and then divided by the total number of pupils for that particular practice. When all the good practices had their corresponding average weight, the overall average weight was computed by adding all the average weights of each practice and then dividing the sum by 25, the total number of good practices.

As a whole the urban school pupils had an overall weighted average of 3.45 equivalent to the category of "Often". This means that, on the whole, the urban pupils performed the good practices often.

Among the 25 good practices, "Using toothpaste when brushing" got the first rank with 251 pupils who rated it "Always"; 39, "Very Often"; six, "Often"; four, "Seldom"; and zero in "Not at all" making a total of 300 pupils with a weighted average of 4.79.

The number inside the parenthesis represents the total weights of the category. For example, in the case of "Always" the weight of five was multiplied by the number of pupils who checked it thus 251 pupils multiplied by five gave the product of 1,255, the total weight of "Always". The same procedure was followed in getting the total weights of the other categories.

"Sleeping under a mosquito net" got the second rank with a weighted average of 4.62; "Avoiding people with tuberculosis", third rank with a weighted average of 4.49; followed by "Moving the bowel regularly", with the weighted average of 4.20 for the fourth rank; and the fifth rank went to "Respecting the rights of Others" with the weighted average of 4.08.

The five lowest ranked practices arranged in descending order were the following: "Eating fresh vegetables" with an average mean of 2.90; "Applying first aid during accidents", 2.82; "Drinking milk" and "Drinking fruit juices, each with 1.95 and "Consulting physician when sick" with a weighted average of 1.92.

"Using toothpaste when brushing" ranked first probably because of the exposure that mass media has given to it. The commercials aired through the radio and flashed in television screens by different toothpaste manufacturers could have influenced the children. Moreover, brushing the

teeth is also a practice done by adults which you[illegible] easily imitate.

"Sleeping under a mosquito net" got the second place probably because this is a common practice of the family. Parental influence and the economic status of the family generally affect this practice, hence children do not have much control on this matter. Mosquito nets are indispensable in places where mosquitoes abound.

"Avoiding people with tuberculosis" obtained the third rank perhaps because of the limited cases of tuberculosis in the communities. There are few people now who are suffering from tuberculosis because of the advance of medical science, hence avoiding them would be very easy.

"Moving the bowel regularly" got the fourth place maybe because this is a natural physical activity. Through its natural function, the body motivates the individual to discharge his body waste. It is a matter of fact that moving bowel has its own regular timing. It occurs at regular interval unless impeded by the person concerned. Because of this natural tendency, its practice could be done without much ado.

"Respecting the rights of others" got the fifth rank probably because this practice requires the participation of close associates. Urban children are closely associated

with other children so that such association could help develop respect for others.

"Consulting physician" got the lowest rank possibly because decision making on this matter lies in the hands of the parents and is greatly influenced by the economic status of the family. Poor families often resort to local healers or to the course of nature believing that some diseases are healed naturally.

"Drinking milk"and"drinking fruit juices" both got the second to the last rank because these things require money. With the present economic condition of the country, even the above-average families would hesitate to buy these expensive commodities. Indeed drinking milk and fruit juices has become a luxury for the common tao.

Good Health Practices Among Rural Pupils

The good health practices among rural pupils are shown in Table 12. The same procedure in computing the weighted average as that for urban pupils was followed.

Among the rural children the top five practices were as follows:

"Resting after hard work" with a weighted average of 4.71; "Sleeping under a mosquito net", 4.29; "Moving the bowel regularly", 4.09;"Respecting the rights of others", 4.07 and "Avoiding people with tuberculosis", 4.06.

Table 12

Good Health Practices Among Rural Pupils

	Al. (5)	Vy. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Resting after hard work	190 (950)	51 (204)	11 (33)	0	0	252	4.71	1
Sleeping under mosquito net	128 (640)	84 (336)	24 (72)	16 (32)	0	252	4.29	2
Moving the bowel regularly	106 (530)	72 (368)	24 (72)	30 (60)	0	252	4.09	3
Respecting the rights of others	95 (475)	88 (352)	56 (168)	11 (22)	0	250	4.07	4
Avoiding people with tuber-culosis	105 (525)	69 (276)	55 (165)	23 (46)	0	252	4.06	5
Having self-confidence	89 (445)	96 (384)	33 (99)	34 (68)	0	252	3.93	6
Having relaxation	64 (320)	105 (420)	57 (171)	26 (52)	0	252	3.82	7
Using toothpaste when brushing	75 (375)	86 (344)	57 (171)	34 (68)	0	252	3.80	8
Eating fresh vegetables	23 (115)	164 (656)	49 (147)	16 (32)	0	252	3.77	9
Keeping nails short & clean	53 (265)	78 (312)	95 (285)	26 (52)	0	252	3.63	10
Drinking plenty of water	56 (280)	79 (316)	68 (204)	48 (96)	0	251	3.57	11
Having clean surroundings	48 (240)	88 (352)	69 (207)	47 (94)	0	252	3.54	12
Having exercises	26 (130)	94 (376)	98 (294)	34 (68)	0	252	3.44	13

Table 12 (continued)

Practices	Al. (5)	VO. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Combing the hair properly	34 (170)	59 (236)	129 (387)	30 (60)	0	252	3.38	14
Brushing the teeth	34 (170)	58 (232)	97 (291)	46 (92)	17 (17)	252	3.18	15
Wearing clean clothes	12 (60)	36 (144)	187 (561)	17 (34)	0	252	3.17	16
Taking a bath	0	86 (344)	100 (300)	56 (112)	0	252	3.12	17
Eating balanced diet	17 (85)	45 (180)	86 (258)	94 (188)	10 (10)	252	2.86	18
Covering the mouth when coughing	15 (75)	54 (216)	60 (180)	89 (178)	34 (34)	252	2.71	19
Facing troubles squarely	0	0	58 (174)	177 (354)	17 (17)	252	2.16	20
Applying first aid during accidents	0	0	51 (153)	139 (278)	62 (62)	252	1.96	21
Drinking fruit juices	0	0	10 (30)	204 (408)	38 (38)	252	1.89	22
Covering the nose while in dusty place	0	0	[illegible]	215 (430)	37 (37)	252	1.85	23
Drinking milk	0	0	0	163 (326)	89 (89)	252	1.65	24
Consulting physician when sick	0	0	0	143 (286)	107 (107)	250	1.57	25

The five lowest ranking practices arranged in descending order were: "Applying first aid during accidents"

with a weighted average of 1.96; "Drinking fruit juices", 1.89; "Covering the nose while in dusty place, 1.85; "Drinking milk", 1.65; and "Consulting physician when sick", the lowest in rank with a weighted average of 1.57.

From the outcome of the ranking some implications may be inferred. The rural pupils chose "Resting after hard work" as their first rank maybe because of their exposure to work. Pupils in the rural areas are oftentimes made helpers in the farm or household chores. Being more exposed to work than the urban children, they become conscious of the importance of physical rest, hence their choice. As regards the second, third, fourth and fifth ranks, the rural pupils have chosen the same practices as did the urban children but they differed only in their ranking.

"Sleeping under a mosquito net" got the second rank probably because mosquitoes are common especially in rural areas and one has to be under a mosquito net in order to escape from their attacks. "Moving the bowel regularly" got the third place probably because it is a natural function of the human body to discharge its waste, thus it cannot be just easily forgotten. "Respecting the rights of others" was the fourth perhaps because of children's playful nature. In games one has to associate with others thus developing his attitudes in dealing with others properly. "Avoiding people with tuberculosis" was ranked fifth maybe because

there are only few tubercular cases those days.

"Consulting physician when sick" got the last or 25th rank which could be attributed to the lack of physicians in the rural areas and also because of the lack of money to pay for the consultation fee. "Drinking milk" was chosen as the second to the last probably because of economic reason. Milk nowadays is a luxury for the rural people. "Covering the nose while in dusty place" was third to the last maybe because in rural areas the environment is fresher than the urban places. Dust is not much a problem in the rural areas. "Drinking fruit juices" could also be a problem among rural pupils because of the scarcity of fruits. "Applying first aid during accident" seems unpopular among the children simply because of the lack of the technical skills needed for such practice.

The ranking given by the rural pupils simply indicates that the environment plays an important role in the practice of different health habits.

Bad Health Practices Among Urban Pupils

The bad practices were also evaluated in the same manner as the good ones. As shown in Table 13, "Playing on the street" got the first rank with a weighted average of 4.12; followed by "Throwing pieces of papers anywhere" for the second rank, 3.35; "Taking medicine without a doctor's

Table 13

Bad Health Practices Among Urban Pupils

Practices	Al. (5)	VO. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Playing on the streets	136 (680)	86 (344)	54 (162)	23 (46)	0	299	4.12	I
Throwing pieces of paper anywhere	29 (145)	96 (375)	125 (375)	50 (100)	0	300	3.35	2
Taking medicine without doctor's prescription	0	78 (312)	128 (384)	66 (132)	26 (26)	298	2.87	3
Spitting anywhere	0	17 (68)	119 (357)	152 (304)	12 (12)	300	2.47	4
Eating sweets between meals	0	16 (64)	100 (300)	184 (368)	0	300	2.44	5
Crossing the street without looking at both sides	0	15 (60)	78 (234)	195 (390)	12 (12)	300	2.32	6
Avoiding the company of others	0	0	86 (258)	175 (350)	36 (36)	297	2.17	7
Blowing the nose too hard	0	14 (56)	64 (192)	152 (304)	69 (69)	299	2.08	8
Wearing dirty clothes	0	6 (24)	25 (75)	230 (460)	36 (36)	297	2.00	9.5
Keeping the hair uncombed	0	5 (20)	26 (78)	230 (460)	36 (36)	297	2.00	9.5
Quarreling with playmates	0	0	15 (45)	275 (550)	0	300	1.98	11
Removing earwax with pins	0	17 (68)	50 (150)	95 (190)	136 (136)	298	1.83	12
Playing with sharp knife	0	0	56 (168)	84 (168)	160 (160)	300	1.65	13

Table 13 (continued)

Practices	Al. (5)	VO. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Having long dirty nails	0	9 (36)	15 (45)	76 (152)	198 (198)	298	1.48	14
Picking the teeth with sharp materials	0	0	16 (48)	84 (168)	196 (196)	296	1.39	15
Eating with unwashed hands	0	0	0	89 (178)	201 (201)	300	1.26	16
Reading in dark room	0	0	0	36 (72)	264 (264)	300	1.12	17.5
Sleeping very late at night	0	0	0	37 (74)	263 (263)	300	1.12	17.5
Borrowing other's toothbrush	0	0	0	27 (54)	271 (271)	298	1.09	19.5
Drinking alcoholic drinks	0	0	0	26 (52)	274 (274)	300	1.09	19.5
Smoking cigarette	0	0	0	25 (50)	275 (275)	300	1.08	21.5
Sleeping in crowded room	0	0	0	23 (46)	277 (277)	300	1.08	21.5
Moving the bowel behind the house or bushes	0	0	0	21 (42)	279 (279)	300	1.07	23
Drinking water from rivers	0	0	0	19 (38)	280 (280)	299	1.06	24
Reading in moving vehicles	0	0	0	15 (30)	285 (285)	300	1.05	25

prescription", third rank with 2.87, while "Spitting anywhere", 2.47; and "Eating sweets between meals", 2.14 got the fourth

and fifth ranks respectively.

The bad practices with the lowest ranks were the following: "Smoking cigarette" with a weighted average of 1.08; "Sleeping in crowded room", 1.08; "Moving the bowel behind the house or bushes", 1.07; "Drinking water from rivers", 1.06; and "Reading in moving vehicles", 1.05.

"PIaying on the streets" which got the first rank is somewhat understandable because many homes in urban areas do not have their own playground. Children have nowhere to play except on the streets. "Throwing pieces of papers anywhere" got the second rank probably due to the habit of using papers as wrappers plus the absence of garbage cans along the streets and yards of houses. "Taking medicine without doctor's prescription" is common because many drugstores sell medicine even without a doctor's prescription. "Spitting anywhere" was also practised by the pupils perhaps because of the lack of knowledge of the harmful effect it has upon people. "Eating sweets between meals" was also practised simply because of the ignorance of its bad effect upon the appetite. In a nutshell, these bad practices were brought about by ignorance.

As far as the lowest ranked practices were concerned, "Reading in moving vehicles" got the lowest. This could be attributed to the scarcity of reading materials and less travel done by children at this age. "Drinking water from

the rivers" got second to the last probably because of the government's effort to provide tap water and artesian wells to the people. "Moving the bowel behind the house or bushes" got the third to the last rank simply because of the campaign for sanitary toilets by the teachers and the Bureau of Health personnel. Moreover, because of the congestion of the houses in the urban areas, people try their best to have their own toilets. "Smoking cigarette" was one of the lowest ranked practices because of the age level of the children. At this early age, parents regard smoking with disapproval, hence children are hesitant to do so. "Sleeping in crowded room" was also among the lowest probably because of the custom among average Filipinos of converting the sala into a sleeping room, thus providing members of the family a wider area for sleeping purposes.

Bad Health Practices Among Rural Pupils

The bad practices among rural pupils were also evaluated and these are presented in Table 14. There was a slight difference of ranking as compared to those of the urban pupils. As shown in the table, the top five in the ranks of the bad practices among rural pupils were as follows: "Moving the bowel behind the house or bushes", with weighted average of 3.62; "Playing on the streets" with 3.22; "Throwing pieces of paper anywhere", 2.41; and "Wearing dirty clothes", with a weighted average of 2.10.

Table 14

Bad Health Practices Among Rural Pupils

Practices	Al. (5)	VO. (4)	Of. (3)	Sel. (2)	NA. (1)	To.	WA.	Rank
Moving the bowel behind the house or bushes	96 (480)	54 (216)	39 (108)	41 (82)	25 (25)	252	3.62	1
Playing on the streets	31 (155)	39 (156)	146 (438)	26 (52)	10 (10)	252	3.22	2
Throwing pieces of papers anywhere	5 (25)	26 (104)	54 (162)	150 (300)	17 (17)	252	2.41	3
Spitting anywhere	0	15 (60)	94 (282)	116 (232)	27 (27)	252	2.38	4
Taking medicine without doctor's prescription	0	0	55 (165)	171 (342)	26 (26)	252	2.12	5
Wearing dirty clothes	0	0	36 (108)	204 (408)	12 (12)	252	2.10	6
Quarreling with playmates	0	0	33 (99)	208 (412)	12 (12)	251	2.08	7
Eating with unwashed hands	0	0	34 (102)	202 (404)	16 (16)	252	2.07	8
Eating sweets between meals	0	0	29 (87)	205 (410)	16 (16)	250	2.05	9.5
Crossing the street without looking at both sides	0	0	28 (84)	208 (416)	16 (16)	252	2.05	9.5
Avoiding the company of others	0	0	0	227 (454)	23 (23)	252	1.89	11
Having long dirty nails	0	15 (60)	36 (108)	74 (148)	127 (127)	252	1.76	12

Table 14 (continued)

Practices	Al. (5)	VO. (4)	Of. (3)	Sol. (2)	NA. (1)	To.	WA.	Rank
Blowing the nose too hard	0	0	26 (78)	97 (194)	129 (129)	252	1.59	13
Keeping the hair uncombed	0	0	16 (48)	103 (206)	127 (127)	252	1.51	14
Picking the teeth with sharp materials	0	0	0	54 (108)	198 (198)	252	1.21	15
Drinking alcoholic drinks	0	0	0	26 (52)	226 (226)	252	1.26	16
Drinking water from rivers	0	0	0	46 (92)	206 (206)	252	1.18	17
Sleeping in crowded room	0	0	0	36 (72)	216 (216)	252	1.14	18.5
Removing earwax with pins	0	0	0	35 (70)	217 (217)	252	1.14	18.5
Sleeping very late at night	0	0	0	28 (56)	224 (224)	252	1.11	20.5
Playing with sharp knife	0	0	0	27 (54)	225 (225)	252	1.11	20.5
Borrowing other's toothbrush	0	0	0	15 (30)	237 (237)	252	1.06	22.5
Reading in dark room	0	0	0	12 (24)	240 (240)	252	1.06	22.5
Smoking cigarette	0	0	0	13 (26)	238 (238)	251	1.05	24
Reading in moving vehicles	0	0	0	0	252 (252)	252	1.00	25

The bad practices which ranked among the five lowest were as follows: "Playing with sharp knife" and Sleeping very late at night", both with a weighted average of 1.11; "Borrowing others' toothbrush", 1.06; "Reading in dark room", also 1.06; "Smoking cigarette", 1.05; and "Reading in moving vehicles", with 1.00 as weighted average.

The first of the bad practices among the rural pupils was "Moving the bowel behind the house or bushes." This is understandable because in rural areas people do not have sanitary toilets. Many farmers prefer to move their bowels in the field rather than in toilets.

"Playing on the streets" got the second because the houses in rural areas do not have playgrounds for children, thus the roads serve as substitute playground.

"Throwing pieces of paper anywhere" got the third rank because garbage cans are not common among rural people. They are apt to throw rubbish or refuse anywhere. "Taking medicine without doctor's prescription" was rampant in rural areas due to the lack of physicians and the presence of drugstores in towns that sell medicine without prescription.

"Wearing dirty clothes" was included among the five ranking bad practices simply because rural children are more exposed to farm work where clothes are liable to get dirty.

The bad practice which got the lowest rank was that of"Reading in moving vehicles." This is reasonable because

rural pupils seldom travel. The scarcity of transportation facilities in the rural areas hamper the desire to travel. This condition plus the lack of reading materials make the practice uncommon.

"Smoking cigarette" was ranked second to the last because at that early age parental disapproval towards smoking is very apparent. Oftentimes parents prohibit their children from smoking at early age. Because of this parental prohibition, smoking is not common among the elementary school children.

There was a tie between "Reading in dark room" and "Borrowing others' toothbrush" for the 22.5th rank. "Reading in dark room" was among the lowest probably because of the pupils' lack of interest in reading, plus the lack of reading materials. When these conditions are present, then to read in dark room would be uncommon.

"Borrowing other's toothbrush" is expected to be also uncommon because the owner of the toothbrush would also hesitate to lend his toothbrush to others, thus there is a sort of natural deterent towards the practice.

Another tie occurred between "Sleeping very late at night" and "Playing with sharp knife" for the 20,5th rank. People in rural areas go to bed early because there is not much to do after dark. "Playing with sharp knife" was also uncommon because of its harmful effects.

Comparison of the High and Low Ranking Good Health Practices of the Urban and the Rural Pupils

It is important that a comparison be made between the good health practices of the urban pupils and those of the rural pupils. This comparison would reveal to what degree their choices are related to each other. Table 15 shows the first five high ranking good practices and the five lowest ranking ones.

Table 15

Comparison of the High and Low Ranking Good Health Practices of the Urban and the Rural Pupils

Practices	Urban Pupils: W.A.	Urban Pupils: Rank	Rural Pupils: W.A.	Rural Pupils: Rank
A. Practices with highest Ranks:				
Using toothpaste when brushing	4.79	1	3.80	8
Sleeping under a mosquito net	4.62	2	4.29	2
Avoiding people w/ t-culosis	4.49	3	4.06	5
Moving the bowel regularly	4.20	4	4.09	3
Respecting rights of others	4.08	5	4.07	4
Resting after hard work	3.84	8	4.71	1
B. Practices with Lowest Ranks:				
Covering the nose while in dusty place	3.71	10	I.85	23
Eating fresh vegetables	2.90	21	3.77	9
Applying first aid	2.82	22	1.96	21
Drinking fruit juices	1.95	23.5	1.89	22
Drinking milk	1.95	23.5	1.65	24
Consulting physician when sick	1.92	25	1.57	25

From the table, it can be seen that the urban pupils differed just slightly in their choices with that of the rural pupils in the second, third, fourth and fifth places. They differed greatly in their choices for the first rank. The urban pupils selected "Using toothpaste when brushing" as their first but the same practice was ranked eighth by the rural pupils. A complete reversal was made regarding the first rank of the rural pupils. They selected "Resting after hard work" as their first, but the same practice was ranked eighth by the urban pupils. The urban and the rural pupils were unanimous in selecting "Sleeping under a mosquito net" for the second rank. From the third to the fifth ranks, very little changes were made. The urban children chose "Avoiding people with tuberculosis" for the third rank but the rural pupils had it fifth. "Moving the bowel regularly" was fourth among urban pupils but the same practice ranked third among the rural pupils. "Respecting the rights of others" was fifth among the urban pupils but was fourth among the rural ones.

In the lowest ranking practices, the urban and the rural pupils had also slight difference in their choices. They were unanimous in choosing "Consulting physician when sick" as the lowest rank. Among the urban pupils there was a tie for the 23.5th rank between "Drinking milk" and "Drinking fruit juices," while the rural pupils had "Drinking milk"

as the 24th rank and "Drinking fruit juices", the 22nd rank. "Applying first aid" was ranked by the urban pupils as 22nd while the rural pupils placed it in the 21st rank.

The two groups differed rather widely in their choice for the 21st and 23rd ranks. The urban pupils had "eating fresh vegetables" for their 21st rank but the same practice was ranked ninth by the rural pupils. On the contrary, the rural pupils had "Covering the nose while in dusty place" for their 23rd rank, but the same practice was ranked 10th by the urban pupils.

These differences between the two groups could have been caused by their different environments. Among the good practices, the urban pupils selected "Using toothpaste" as their first. This may be due to the influence of their more educated parents. People in the urban areas are more educated compared to those in the rural areas and as such are more conscious about proper dental care. These parents may have influenced their children, hence their choice for it as their first rank. On the contray, the rural pupils selected "Resting after hard work" as their first. This choice might have been influenced by their exposure to hard work. Rural pupils are more exposed to hard work compared to the pupils in the urban areas. Because of this exposure, rural children become more conscious of physical rest, hence their choice for "Resting" giving it the highest rank.

Among the lowest ranked practices, the urban and the rural pupils were almost in agreement except in two practices. "Eating fresh vegetables" was ranked 21 by the urban pupils but the rural pupils gave it a rank of nine. This difference may be attributed to the sources of vegetables. The urban pupils had no vegetable garden in their yards and could get vegetables only through the market vendors. On the other hand, rural pupils can plant vegetables in their farms so that they can have vegetables anytime at their disposal. The other practice in which the two groups differed much was "Covering the nose while in dusty place." The urban pupils rated this practice as rank 10 but the rural pupils had it in rank 23. This variation can also be attributed to location. In urban areas the air is somewhat polluted because of dust from the busy streets. In rural areas the air is fresh because the houses are not surrounded by roads. To the rural pupils dust is not a problem, hence the difference.

When the t test was used in all the 25 good practices, the t score was found to be 4.30. Considering the critical value of t at 0.05 which is 2.064 with 24 degrees of freedom, the obtained t of 4.30 proves that there is a significant difference between the good practices of the urban and the rural pupils, hence the null hypothesis which states that "there is no significant difference in the health practices

of the Grade VI pupils in the urban and the rural areas of Samar" is rejected as far as good practices are concerned.

Comparison of the High and Low Ranking Bad Health Practices of the Urban and the Rural Pupils

The urban and the rural pupils differed much in their

Table 16

Comparison of the High and Low Ranking Bad Health Practices of the Urban and the Rural Pupils

	Urban Pupils W.A.	Urban Pupils Rank	Rural Pupils W.A.	Rural Pupils Rank
A. High Ranking Practices:				
Playing on the streets	4.12	1	3.22	2
Throwing pieces of paper anywhere	3.35	2	2.41	3
Taking medicine without doctor's prescription	2.87	3	2.12	5
Spitting anywhere	2.47	4	2.38	4
Eating sweets between meals	2.44	5	2.05	9.5
Moving the bowel behind the house or Bushes	1.07	23	3.62	1
B. Low Ranking Practices:				
Playing with sharp knife	1.65	13	1.11	21
Reading in dark room	1.12	17.5	1.06	22.5
Borrowing others' toothbrush	1.09	19.5	1.06	22.5
Sleeping in crowded room	1.08	21.5	1.14	18.5
Smoking cigarette	1.08	21.5	1.05	24
Moving the bowel behind the house or bushes	1.07	23	3.62	1
Drinking water from rivers	1.06	24	1.18	17
Reading in moving vehicles	1.05	25	1.00	25

choices for ranking the bad practices. Their widest difference was in the practice, "Moving the bowel behind the house or bushes," which the rural pupils ranked first while the urban pupils rated it as rank 23. They had other wide difference in their choice for ranking the five lowest practices. The urban pupils ranked the highest bad practices as follows: "Playing on the streets"; "Throwing pieces of paper anywhere"; "Taking medicine without doctor's prescription"; "Spitting anywhere"; and "Eating sweets between meals". The rural pupils, on the other hand, had a different ranking as follows: "Moving the bowel behind the house or bushes"; "Playing on the streets";"Throwing pieces of paper anywhere"; "Spitting anywhere"; and "Taking medicine without doctor's prescription."

With the exception of "Eating sweets between meals" and "Moving the bowel behind the house or bushes", the two groups had slight differences in their ranking. "Throwing pieces of paper anywhere" was rank two among the urban pupils but was rank three among the rural pupils. "Taking medicine without doctor's prescription" was rank three among urban pupils but was rank five among rural pupils. They had a bigger difference in the practice of moving the bowel. The rural pupils had it as rank one because the rural pupils do not have toilets in their homes while the urban children

mostly have toilets in their homes.

Of the practices in the lowest ranks, the two groups were in perfect agreement for the last rank. They were unanimous in rating "Reading in moving vehicles" as the last or 25th rank. In the other low ranking practices, they differed quite a lot. In the case of "Drinking water from the rivers", the urban pupils ranked it 24 while the rural pupils had it as rank 17. "Moving the bowel behind the house or bushes" was rank 23 among the urban pupils but rank one among among the rural pupils. "Smoking cigarette" was rank 21.5 among the urban pupils but rank 24 among rural children. "Playing with sharp knife" was rank 21 among the rural pupils but rank 13 among the urban pupils.

These differences in the ranking could mostly be traced to their environment. The difference was wide in the ranking of "Moving the bowel behind the house or bushes" because rural pupils had no toilets while urban pupils had.

As far as "Drinking water from the rivers" is concerned, it was rank 24 for the urban pupils but rank 17 among the rural pupils. This difference may be due to the presence of faucets and artesian wells in urban areas.

"Reading in dark room" was rank 17.5 among the urban pupils but was rank 22.5 among rural pupils. This difference could be due to the scarcity of reading materials in the rural areas. "Playing with sharp knife" was rank 13 among urban

pupils but was rank 21 among rural pupils. This difference could be due to the abundance of knives in the urban areas as compared to the rural. Besides, pupils in the rural areas are already used to carrying knives when going out of the house for protection and convenience purposes.

When the t test was made in all the 25 bad practices, the t score was found to be 2.75. This obtained t score showed that there was a significant difference at 0.05 level, the critical value of t being 2.064 with 24 degrees of freedom. Thus among the bad practices, the null hypothesis that "there is no significant difference in the bad health practices of the Grade VI pupils in the urban and the rural areas of Samar", was rejected.

Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Today, health problem is very common among the people. Human and animal wastes are found in cannals, roadsides and even in backyards wrapped in papers or plastic bags. Garbage and rubbish are scattered in conspicuous places, emiting foul odors that cause public disturbances. These multifarious health problems may be the offshot of inadequate health knowledge and the refusal to implement correct practices. Health and sanitation have become a major problem because some people are not so much imbued with the importance and value of cleanliness.

The problems cited above can only be remedied by proper and adequate health instruction among the people especially the youth who are now in the elementary grades. The school therefore, has an important rôle to play in making health instruction effective and meaningful.

The presence of many health problems today led the writer to believe that there was something wrong in the school health instruction program. To determine therefore, whether health instruction was properly and adequately done in school, this writer attempted to evaluate and compare the health knowledge and practices of the Grade VI pupils in the urban and the rural areas of Samar.

Specifically this study sought answer to the following questions:

1. What is the qualification profile of the teachers teachin health in Grade VI in the Division of Samar?

2. What are the methods, techniques, and approaches employed by the teachers in teaching health education?

3. What are the instructional materials used by the teachers in their teaching?

4. How much time is alloted to health teaching?

5. To what extent do the pupils gain knowledge of health in relation to prescribed standard?

6. How are the knowledge gained by these pupils manifested in their practices in school or at home?

This study is of importance to the pupils, teachers and administrators. To the pupils, the Health Knowledge Test and the Health Practices Checklist would serve as eye-openers. By knowing their scores in the test, they would be encouraged to study further and have more interest in the subject.

This study can help the teachers in health develop an insight into the actual condition of the health knowledge and practices of the pupils thus allowing them to make the necessary adjustment in their teaching. To the administrators, this study can help establish the basis for making critical supervision and evaluation of health instruction.

With the findings of this study, the administrators can provide ways and means for efficient and effective teaching.

This study was limited to the Grade VI pupils in the urban and the rural areas in the Division of Samar in the school year 1984-1985. It was further limited to only 10 districts because of economic reasons.

To get supplementary information about his study, this writer read various related literature and studies. Topics on healthful living, diseases and their prevention and control, foods, and parent education were read to enrich his points of views. Several related studies were also reviewed to get more insight into the health problems in question. Among them were the study of Olaes on the health knowledge and practices of the fourth year high school in Cavite, the study of De Guzman on effectiveness of health instruction in Angeles City and Caronongan's study on the instruction of health and science in Pangasinan.

To get the desired result, this writer used three instruments in his study. He made use of the standardized Health Knowledge Test developed by Cortez and framed a Health Practices Checklist consisting of 25 good health practices and 25 bad health practices. For the teachers, a questionnaire was made which asked for the teachers' educational attainment; health units earned; health seminars attended; textbooks, guides and references used; instruc-

tional materials; and the time spent for the health instruction.in their classes.

The respondents of the study were selected purposively and randomly. The 10 districts included in this study were selected purposively in the sense that they were intentionally picked out considering their geographical location from north to south of the Division.

The pupils were both purposively and randomly selected. Pupils in the urban schools with several sections of Grade VI classes were selected randonly using the odd number method. In cases where six or eight pupils from a certain section were needed, these pupils were taken from the school register, picking out only the first six or eight occupying the odd numbers. However, pupils from the rural schools, with only one section were all allowed to take the test regarless of their number.

Findings

The teachers teaching health in the Division of Samar were highly qualified because many of them had more than 20 M.A. units. However, as far as health education is concerned, nine or 29.03 percent of the teachers included in the study have not earned any unit in Health. These were the teachers who graduated from the ETC-BSE course. Twenty-two or 70.97 percent of the teachers earned only six units

in health and these were the BSEEd graduates. Considering this fact, 29.03 percent of the teachers were not well prepared to teach health education.

The teachers used varied methods, techniques and approaches in their teaching. The inductive method topped them all having been used by 87.10 percent of the teachers with the deductive and inquiry methods following closely.

Among the techniques, the question and answer technique got the highest percentage with 88.89 percent among urban teachers and 84.62 among rural teachers. Socialized recitation followed with 88.89 percent among urban teachers and 76.92 among rural teachers.

The conceptual approach was the most popular among the approaches, having been used by 77.78 percent of the urban teachers and by 76.92 percent of the rural teachers. The process approach followed in rank being used by 55.56 percent of the urban and 38.46 percent of the rural teachers while the experiential approach got the last rank.

The teachers used 10 different kinds of books in teaching health. Some books were used by urban teachers alone while others were used only by rural teachers. The same was true with the guides and references. Only four kinds of references were reported used and only by six teachers. Four kinds of teaching guides were used by only 11 teachers included in this study.

Among the instructional materials, pictures were used by 94.44 percent of the urban teachers and 92.31 percent of the rural teachers, and posters by 94.44 percent of the urban teachers and 76.92 percent of the rural teachers. Magazines, concrete objects, pamphlets and periodicals followed in descending order.

There was no uniformity of time used by the teachers in the teaching of health. Ten or 55.56 percent of the urban teachers and eight or 61.54 percent of the rural teachers taught health once a week only; six or 33.33 percent of the urban teachers and three or 23.08 percent of the rural teachers twice a week; two or 15.38 percent of the rural teachers thrice a week; while two or 11.11 percent of the urban teachers integrated it with other subject areas.

In the extent of knowledge gained by the pupils, the urban schools had a combined mean of only 34.85 while that of the rural schools was a little bit lower at 33.17. The Division mean was only 34.01.

The comparison of the good health practices between the urban and the rural pupils revealed that environment played an important role in influencing the children. "Using toothpaste when brushing" was rank one among the urban pupils but the same practice was only rank eight among the rural pupils. A complete reversal was made when the rural

pupils selected "Resting after hard work" as rank one while the urban pupils put it in rank eight.

Among the bad practices, a wide gap existed between the two groups. The rural pupils selected "Moving the bowels behind the house or bushes" as rank one but the urban pupils rated the same practice as rank 23.

The t test on the health knowledge test result revealed a significant difference at 0.05 level. The obtained t score of 2.45 was higher than the critical value of t at 0.05 level which is 2.262, thus the null hypothesis that "there is no significant difference in the health knowledge of the Grade VI pupils in the urban and the rural areas of Samar" was rejected.

The t test on all the 25 good practices resulted in a t score of 4.30. Considering the critical value of t at 0.05 which is 2.064 with 24 degrees of freedom, the obtained t of 4.30 proved that there was a significant difference between the good practices of the urban and the rural pupils, hence the null hypothesis was rejected.

When the t test was made for the 25 bad practices, the t score was 2.75. This obtained t score showed a significant difference at 0.05 level, the critical value of which is 2.064 with 24 degrees of freedom, hence the null hypothesis was also rejected.

Conclusions

Based on the findings, the following conclusions were made:

1. The teachers were highly qualified having graduated from four-year courses with many M.A. units, they used varied methods, techniques and approaches in their teaching including varied materials; however, they had very limited books, guides, and references for health education.

2. The teachers did not give sufficient time for health instruction.

3. The pupils' knowledge in health was very low considering the very low Division mean of only 34.01.

4. There was significant difference in the health knowledge and practices of the Grade VI pupils in the urban and the rural areas of Samar.

Recommendations

Based on the conclusions made, the following recommendations are presented:

1. The teachers who graduated from the ETC-BSE course, who earned no health unit at all should be given special in-service training in Health Education.

2. More Health seminars should be conducted to upgrade teachers' teaching competencies in health; sufficient textbooks, guides, and references for health should be made

available; and that sufficient time be given to health instruction so that pupils can learn more about the subject.

3. Teachers should strive harder to improve health instruction by learning more on health through self-study and research.

4. Teachers should follow religiously the time allotment for each subject so as not to shortchange other subject areas; and that supervisors maintain a balanced supervision, seeing to it that all areas of instruction are given proper emphasis.

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APPENDICES

APPENDIX A

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

February 13,1984

The Acting Dean of Graduate Studies
Samar State Polytechnic College
Catbalogan, Samar

S I R :

In my earnest desire to start writing my thesis proposal any time this month, may I have the honor to request approval of one of the problems stated below but with more preference to No. 1.

1. HEALTH KNOWLEDGE AND PRACTICES OF THE GRADE VI PUPILS IN THE URBAN AND THE RURAL AREAS OF SAMAR: AN EVALUATION

2. THE PROBLEMS AND THEIR CAUSES OF THE DETERIORATION OF ENGLISH IN THE ELEMENTARY GRADES

3. THE NEED FOR VOCATIONAL EDUCATION IN THE NATIONAL DEVELOPMENT

I am hoping and praying for your favorable action.

Very truly yours,

(SGD) MARIANO B. BARON
Graduate Student

RECOMMENDING APPROVAL:

(SGD) ALEJANDRO E. CANANUA
Acting Director
Research and Extension Services

APPROVED:

(SGD)DOMINADOR Q. CABANGANAN Ed.D.
Dean, Graduate Studies

APPENDIX B

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

July 10,1984

The Schools Division Superintendent
Catbalogan, Samar

S I R :

I have the honor to request permission to make a dry run of my instruments, namely the additional 50 items of the health knowledge test, the health practices check-list for the grade VI pupils, and the questionnaire for the grade VI Health teachers, in some central and barangay elementary schools in the Division. This dry run is intended to secure the teachers' and pupils' comments and suggestions to improve the above mentioned instruments.

I am hoping and praying for your favorable action.

Very truly yours,

(SGD) MARIANO B. BARON
Graduate Student

APPROVED:

(SGD) LEOVIGILDO B. GELI
Schools Division Superintendent

APPENDIX C

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

August 16,1984

The Schools Division Superintendent
Catbalogan, Samar

S I R :

I have the honor to ask permission to administer a health knowledge test to 30 grade VI pupils from each central school and to one barangay elementary school in the ten selected districts in the Division of Samar. The test will be given in order to evaluate the health knowledge of the grade VI who are the most advanced pupils in the elementary level. Aside from the health knowledge test, questionnaire-checklists on health practices will also be given to these pupils to determine their actual health practices in school and at home.

Permission is further requested to give questionnaire-checklists to the Health teachers in the selected schools in order to gather from them relevant information that may be useful in arriving at a valid and reliable evaluation.

I am hoping and praying for your favorable action.

Very truly yours,

(SG.) MARIANO B. BARON
Graduate Student

APPENDIX D

Republic of the Philippines
Ministry of Education, Culture and Sports
R e g i o n V I I I
DIVISION OF SAMAR
Catbalogan

August 27,1984

The District Supervisor
Principal
Head Teacher

The bearer, Mr. Mariano B. Baron, a head teacher of Lokilokon Brgy. Elementary School in the district of Wright, now a graduate student of Samar State Polytechnic College, is gathering data for his thesis entitled, Health Knowledge and Practices of the Grade VI Pupils in the Urban and the Rural Areas of Samar: An Evaluation. He is given permission to administer a health knowledge test and to issue health practices checklist to the grade VI pupils. Permission is also granted him to give questionnaire to the Health teachers in grade VI.

It is requested that Mr. Baron be given the usual professional courtesies.

SGD) LEOVIGILDO T. GELI
Schools Division Superintendent

APPENDIX E

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

March 12,1984

Dear Fellow Teachers,

Below are questions which require your sincere responses. Please do me the favor of checking the space or spaces where your answer or answers are found. I am evaluating the health knowledge and practices of the grade VI pupils in the Division of Samar. Some of these pupils are now under your care. Being their teacher, you have the vital role to play in this evaluation. As a Health teacher, you are in the best position to help make this evaluation valid and reliable. Please lend me a part of your precious time to answer this questionnaire because your answers will be indispensable for the attainment of the desired results.

I am hoping and praying for your wholehearted cooperation and support in this educational endeavor.

Very truly yours,

(SGD) MARIANO B. BARON

CHECK LIST No. I
(For Teachers)

Name: _____ School: _____

District: _____

I. About the Teacher (Put a check mark on the space at the left)

1. What is your educational attainment?

___ E.T.C.

___ E.T.C.-B.S.E.

___ B.S.E.Ed.

___ E.T.C.-B.S.E. with 10 or less M.A. units.

___ E.T.C.-B.S.E. with 20 or less M.A. units.

___ E.T.C.-B.S.E. with more than 20 M.A. units.

___ B.S.E.Ed. with 10 or less M.A. units.

___ B.S.E.Ed. with 20 or less M.A. units.

___ B.S.E.Ed. with more than 20 M.A. units.

___ M.A. in _____

2. How many Health units have you earned?

a. During undergraduate studies ___ units.

b. During graduate studies ___ units.

3. How many Health seminars have you attended?

a. Total number of Health seminars attended ____.

b. Total number of hours attended ___.

II. On Methods, Techniques, or Approaches

(Check as many methods, techniques, or approaches used)

1. Methods: ___ Inductive ___ Problem solving

___ Deductive ___ Others(specify)

___ Inquiry _____

_____

2. Techniques: ___Lecture

___Dictation

___Question and answer

___Socialized recitation

___ Book reading

___ Others(specify) _____

_____

3. Approach: ___ Conceptual

___ Experiential

___ Process

III. On Textbooks, References, and Guides

(List down the texts, references or guides used)

a. Textbooks: _____

_____

_____

b. References: _____

_____

_____

c. Guides: _____

_____

_____

IV. On Instructional Materials Used.

(Check as many instructional materials used)

___ pictures

___ posters

___ concrete objects

___ pamphlets

___ magazines

___ periodicals

___ Others (specify)

_____

V. On Time Used:

How much time you spent for Health?

___ Once a week

___ Twice a week

___ Thrice a week

___ Integrating with other subject areas

APPENDIX F

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

March 12,1984

Dear Pupils,

Below are practices which are sometimes done by children like you. Please put a check(✓) mark on the space where you think your actual performance of the given practice properly belongs. You have five choices to make. They are: Always, Very Often, Often, Seldom, and Not at all. If you are doing the given practice always, then check the space for always. Or if you are doing it only seldom, then check the space for seldom. Follow the same procedure with the other choices.

Please be honest in your answers because in them depend the validity, reliability and usefulness of this evaluation.

Very truly yours,

(SGD) MARIANO B. BARON

(CHECK LIST No.2)
(For Pupils)

Name: _____ School: _____

District: _____

Practices	A.	VO.	O.	S.	NA.
1. Taking a bath					
2. Combing the hair properly					
3. Having long dirty nails					
4. Wearing dirty clothes					
5. Brushing the teeth					
6. Keeping the hair uncombed					
7. Keeping nails short and clean					
8. Wearing clean clothes					

9. Borrowing other's toothbrush	:	:	:	:	:	:
10. Eating sweets between meals	:	:	:	:	:	:
11. Eating fresh vegetables	:	:	:	:	:	:
12. Eating balanced diet	:	:	:	:	:	:
13. Drinking alcoholic drinks	:	:	:	:	:	:
14. Drinking milk	:	:	:	:	:	:
15. Drinking plenty of water	:	:	:	:	:	:
16. Eating with unwashed hands	:	:	:	:	:	:
17. Smoking cigarette	:	:	:	:	:	:
18. Consulting physician	:	:	:	:	:	:
19. Having exercises	:	:	:	:	:	:
20. Reading in dark room	:	:	:	:	:	:
21. Reading in moving vehicles	:	:	:	:	:	:
22. Sleeping in crowded room	:	:	:	:	:	:
23. Sleeping very late at night	:	:	:	:	:	:
24. Removing the earwax with pins	:	:	:	:	:	:
25. Blowing the nose too hard	:	:	:	:	:	:
26. Having relaxation	:	:	:	:	:	:
27. Resting after hard work	:	:	:	:	:	:
28. Picking the teeth with sharp material	:	:	:	:	:	:
29. Using toothpaste when brushing	:	:	:	:	:	:
30. Avoiding people with tuberculosis	:	:	:	:	:	:
31. Quarreling with playmates	:	:	:	:	:	:
32. Having clean surrounding	:	:	:	:	:	:

33. Covering the mouth when coughing : : : : : :
34. Playing on the street : : : : : :
35. Spitting anywhere : : : : : :
36. Moving the bowel regularly : : : : : :
37. Respecting the rights of others : : : : : :
38. Playing with sharp knife : : : : : :
39. Sleeping under a mosquito net : : : : : :
40. Throwing pieces of paper anywhere : : : : : :
41. Moving the bowel behind the house or bushes : : : : : :
42. Drinking fruit juices : : : : : :
43. Covering the nose while in dusty place : : : : : :
44. Avoiding the company of others : : : : : :
45. Applying first aid properly in case of emergency : : : : : :
46. Drinking water from the rivers : : : : : :
47. Crossing the street without looking first at both sides : : : : : :
48. Having self-confidence : : : : : :
49. Facing any trouble squarely : : : : : :
50. Taking any medicine without the doctor's prescription : : : : : :

APPENDIX G

Table of Specification

A R E A S	No. of Items	Item Placement	%
1. Personal Hygiene	9	1 - 9	9
2. Nutrition	12	10 - 21	12
3. Care of the Eyes, Ears, Nose and Throat	8	22 - 29	8
4. Dental Care	8	30 - 37	8
5. Exercise, Rest, Relaxation, and Sleep	8	38 - 45	8
6. Growth and Development	13	46 - 58	13
7. Emotional and Social Health	12	59 - 70	12
8. First Aid and Safety	10	71 - 80	10
9. Prevention and Control of Diseases	13	81 - 93	13
10. School, Home, and Community Health	7	94 - 100	7
Totals	100		100

APPENDIX H

HEALTH KNOWLEDGE TEST FOR GRADE VI

Name: _____ School _____

District _____ Teacher _____

Direction: Encircle the letter which contains the correct or best answer.

Example: The outer layer of the skin is called

A. epidermis C. oil gland

B. dermis D. sweat gland

Begin here:

1. Perspiration comes out of the skin through the

A. pores C. hairpit

B. nerve endings D. nerve fibers

2. In choosing the clothes to wear, the most important factor to consider is the

A. cost C. confort

B. style D. design

3. Linda would like to maintain grace while sitting. One simple practice she should do is to

A. cross her legs

B. use expensive stockings

C. keep her knees always together

D. place the right leg on top of the left leg

4. Our hair looks shiny due to its

A. natural oil C. texture and shape

B. natural color D. length

5. The oil that comes out from the oil gland keeps the hair and skin .

A. hard and brown C. soft and glossy

B. dry and smooth D. dark and brittle

6. Toenails should be cut once a week. They should be cut

A. round like fingernails C. very short

B. straight across D. down at the side

7. Good posture while walking may be maintained by
   A. taking long steps
   B. putting the head high, shoulders rigid and straight
   C. taking short steps
   D. walking with head up and shoulders relaxed
8. There are rules to follow for correct posture. One is
   A. keep your heels together and your toes out
   B. always throw out your chest
   C. not to swing your arms
   D. stand confortably but as tall as possible
9. The proper way to shampoo the hair is to
   A. rub soapsuds into the scalp
   B. wash the hair and scalp twice a day
   C. scratch the scalp briskly
   D. use a lemon or vinegar rinse
10. The eating of food that requires lots of chewing
   A. may be harmful to teeth and gums
   B. is harmful because it uses up too much saliva
   C. is hard on the digestive system
   D. is healthful for teeth and gums
11. If you have ₱1.50 to spend for recess time, the best foods to buy are
   A. soup, atis and bread
   B. candies, puto, and pan
   C. a big bar of chocolate
   D. a bottle of pepsi
12. The cheap source of vitamin are
   A. milk and eggs
   B. leafy, green and yellow vegetables
   C. corn and potatoes
   D. vitamin pills
13. The most nearly complete food is
   A. sugar
   B. fish
   C. eggs
   D. milk

14. The scientific name for the food nutrient that makes strong muscle and supplies building materials is
    A. carbohydrates
    B. protein
    C. fat
    D. vitamin
15. Which of the following drinks are stimulants?
    A. coffee and tea
    B. calamansi juice
    C. mirinda and pepsi
    D. orange and apple juice
16. Children need more calories of food after several hours of
    A. hard exercises
    B. hard mental work
    C. sleep
    D. complete rest
17. The best food group to promote growth is
    A. rice and other cereals
    B. candies and cakes
    C. milk and fruit juice
    D. pansit and puto
18. Children should avoid drinking tea and coffee because these beverages
    A. may cause the heart to beat slower
    B. may cause the heart to beat faster
    C. add heat to the body
    D. stimulate perspiration
19. It is found in oranges, guavas, calamansi and some other fruits. It helps children to have firm, pink gums and to have healthy teeth and bones. This is
    A. vitamin A
    B. vitamin D
    C. vitamin E
    D. vitamin C
20. A dinner consisting of meat potatoes, gabi, macaroni, salad, bread and butter contains
    A. too much starch
    B. enough protein
    C. too much protein
    D. not enough starch
21. Mother used milk and half of it was left. To keep it fit for the next use, she should
    A. heat it before using
    B. remove its water content
    C. keep it in cool, dry place
    D. place it inside the freezer before drinking

22. If you have dirty ears, the best thing to use to clean them is
    A. toothpick
    B. stick with cotton
    C. hairpin
    D. smooth stick
23. Your little brother has a dust particle in one of his eyes. The best thing to do is
    A. tell him to rub his eyes briskly with handkerchief
    B. ask him to use a piece of cotton to wipe the eye
    C. ask him to wash the eye with any water on hand
    D. hold the eyelid out for a few seconds and let the tears wash out the dust
24. You learn the most about the outside world through the sense of
    A. touch
    B. hearing
    C. sight
    D. smell
25. Josefina has a good eyesight. One good practice she has is
    A. read in moving vehicles
    B. sit very close to the movie screen
    C. make sure that when she reads the light falls on her book and not on her eyes
    D. avoid sleeping with wet hair
26. The hair in the nostrils
    A. strains oxygen in the air
    B. strains carbon dioxide in the air
    C. cleans the odor we smell
    D. strains the air we breathe
27. An instrument used to test one's hearing is the
    A. thermometer
    B. hydrometer
    C. audiometer
    D. cardiograph
28. If you have sore throat, the best thing to do is
    A. drink plenty of calamansi juice
    B. drink cold water
    C. drink hot coffee
    D. talk softly

29. If your nose is partly closed because of nasal secretions,
    A. blow it hard as you can
    B. insert a stick inside
    C. put hot cloth over the nose
    D. blow it softly
30. The most common cause of tooth decay is
    A. poor mouth care
    B. poor diet
    C. poor digestion
    D. abnormal tooth growth
31. The hard, stony substance, yellowish or brownish in color around the neck of the teeth can be removed by
    A. regular brushing of teeth
    B. dental prophylaxis
    C. the use of chemical mouthwash
    D. flouride treatment
32. The front and back surface of the teeth should be cleaned by brushing
    A. in little circle
    B. away from the gums
    C. back and forth in straight line
    D. towards the gums
33. Which of these foods favor the development of tooth decay?
    A. meat and pork
    B. fruit and vegetables
    C. sweets and candies
    D. bread
34. Tooth troubles which the dentist cannot see with his naked eyes can be seen through the use of
    A. X-ray
    B. a microscope
    C. a microfilm
    D. a filmstrip
35. If you have tooth troubles, you should
    A. let your father pull the aching tooth
    B. place plenty of toothpaste when brushing
    C. wait until you are sure which tooth is aching
    D. consult the dentist as soon as possible
36. The mineral that can make our tooth strong is
    A. iron
    B. iodine
    C. calcium
    D. phosphorus

37. You should brush your teeth
    A. before going to school C. before playing
    B. before going to church D. after eating
38. There are several ways to rest and the best way is
    A. closing the eyes
    B. wiggling the hands and toes
    C. avoiding contact with loud noise
    D. taking a good sleep
39. During strenuous play, a person breathes faster to
    A. take in more oxygen which the body needs
    B. eliminate oxygen from the body
    C. take in carbon dioxide
    D. enable the heart to function well
40. Exercise of the proper kind and amount is important because it
    A. improves blood circulation
    B. raises body temperature
    C. overworks the heart
    D. makes the person feel stiff and sore
41. The type and amount of exercise the person should take depends upon
    A. his wealth and stature C. his age and health status
    B. his job and profession D. the novelty of the activity
42. Enough sleep is important because when you sleep
    A. the eyes get needed rest
    B. you use the food that you did not use
    C. the energy of the body can be used for growth
    D. you rest your mind and brain
43. After hard physical work, it is better to
    A. take a warm bath
    B. relax and listen to sweet music
    C. eat immediately
    D. play pingpong

44. When performs manual work, the best relaxation for him is
    A. dancing
    B. swimming
    C. playing
    D. reading

45. The best way to get rested is to
    A. watch the movie
    B. listen to radio
    C. sit down silently
    D. go to sleep

46. The smallest part of the body that is responsible for growth is the
    A. organ
    B. muscle
    C. cell
    D. nerve

47. The digestion of food begins in the
    A. mouth
    B. esophagus
    C. stomach
    D. small intestine

48. Food and oxygen are carried into the cells. The work of transmission is done by the
    A. nerves
    B. digestive system
    C. muscle
    D. blood

49. The sweat glands in the inner layer of the skin secretes
    A. oil
    B. perspiration
    C. cells
    D. body odor

50. The best foods for the growing child are
    A. bibingka and tea
    B. eggs, milk, and pandesal
    C. fried rice and bread
    D. suman and sugar

51. Carbohydrate-rich foods provide the body with materials for
    A. repair of worn-out tissues
    B. building resistance to infections
    C. helping the glands to work well
    D. the supply of heat and energy

52. Muscle is attached to the bones by thick, tough substance called
   A. tendons
   B. ligaments
   C. cartilage
   D. nerve endings
53. Theelements that help in the clotting of blood is the
   A. plasma
   B. platelate
   C. white cell
   D. red cell
54. The liquid part of the blood is the
   A. plasma
   B. platelate
   C. white cell
   D. red cell
55. The air that we breathe goes directly to the
   A. heart
   B. lungs
   C. stomach
   D. liver
56. The food that we eat is partly digested in the
   A. heart
   B. lungs
   C. kidneys
   D. stomach
57. The organs that pumps blood into the body parts is called
   A. kidney
   B. liver
   C. heart
   D. stomach
58. The vessel that carries blood from the heart to the parts is called
   A. vein
   B. artery
   C. capillary
   D. nerves
59. Members of the losing team should
   A. make excuses for their defeat
   B. find fault with the winring team
   C. be good losers and congratulate the winners
   D. Blame the referee for their defeat
60. The best way of meeting disappointment is to
   A. go off by yourself away from others
   B. Accept it and see if you can make other plans
   C. cry a lot, then perhaps you can do what you want
   D. go to bed and forget it

61. When a person makes a mistake, the best thing for him to do is

    A. admit that he is wrong
    B. become angry
    C. pretend to be innocent
    D. deny that he is wrong

62. When making friends, remember to choose

    A. children who are rich
    B. children with fair and smooth complexion
    C. children with good study habits
    D. children with different religion as yours

63. It is important that you learn to solve problems. To do so, you must

    A. follow definite rules
    B. learn to ignore your problems
    C. run away from the difficult situation
    D. meet your problem squarely

64. Lito is a good member of the group because

    A. he shares his ideas with the group
    B. he keeps quiet all the time
    C. he illustrates for the member's report
    D. he dismisses everything that his leader proposes

65. You want to win more friends. Which of the following practices will help you?

    A. learn to deny yourself of little things for the sake of bigger ones
    B. share your joys and failures with others
    C. talk about other person's affair to win their confidence
    D. respect their opinions and be considerate with them.

66. When you do not know how to swim well
    A. make excuses for your inability
    B. give up swimming entirely
    C. improve through regular, well guided practice
    D. envy your friends who can swim well
67. Proper attitude towards members of the opposite sex can be developed by
    A. keeping oneself alone at all times
    B. joining wholesome, organized activities among boys and girls
    C. doing unusual things to call their attention
    D. sharing with them all your resources
68. The way we feel and think is important because it
    A. affects our whole body
    B. makes us alert and active
    C. makes us think of others
    D. does not affect the way we act
69. Environment affects our
    A. behavior
    B. intelligence
    C. size
    D. speed
70. Which of these can cause much unhappiness?
    A. loss of knowledge
    B. loss of wealth
    C. loss of relatives
    D. loss of health
71. The safe place to play is usually
    A. near the bridge
    B. in the busy street
    C. on the playground
    D. on the sidewalk
72. Boys and girls can play safely by
    A. tripping others for fun
    B. obeying all the rules of the game
    C. always thinking of accident
    D. never think of accidents
73. The best place for keeping matches after using them is
    A. in any convenient place
    B. in a tin can away from children's reach

C. near the stove where they are accessible
D. on top of a stock of old newspaper

74. A bruise may be treated by applying
A. an antiseptic
B. cold compress
C. a bandage
D. hot compress

75. In getting a ride for school, it is safe to
A. stand or play on the road while waiting for the bus
B. run to catch the bus or jeepney
C. ride in the bus while it is in motion
D. ride when the bus is at full stop

76. One form of first aid to use on a drowning person is
A. artificial respiration
B. applying a splint
C. giving the victim hot drink
D. applying tourniquet

77. First aid is the temporary treatment given to a victim of accident
A. after the physician comes
B. before the arrival of the physician
C. when the physician arrives
D. during and after the arrival of the physician

78. You are alone in the house when your clothing catches fire. The best thing for you to do is
A. run as fast as you can for help
B. roll on the floor to put out the fire
C. cry out loud to call your neighbors
D. run out to get water for the fire

79. While walking on a busy highway, remember to
A. walk following traffic rules
B. walk on the right side by two's
C. rush into the street from behind a parked car
D. hitch into a moving car or vehicle

80. The first aid measure for a nosebleed is to hold the head

A. low and apply cold compress over the nose
B. high and apply hot compress over the nose
C. high and apply cold compress over the nose
D. low and apply hot compress over the nose

81. You get advice on the use of medicine and drug from
A. a friend who used the drug
B. your family doctor
C. a practicing nurse
D. a quack doctor

82. Many epidemics of diseases like influenza and others have been caused by
A. lack of sleep
B. more exposure to night air
C. poor sanitation
D. bathing too frequently

83. To avoid transferring your cold to someone else, you should
A. Cover your mouth whenever you cough or sneeze
B. lend him your handkerchief
C. sit close to him during conversation
D. use the same drinking cup he uses

84. Bacteria are surely and quickly killed by
A. damp environment
B. outdoor and direct sunlight
C. sunshine passing through window pane
D. cold, chilly weather

85. The common housefly carries the germs which cause
A. cholera El Tor
B. malaria
C. chikenpox
D. beriberi

86. Bacteria may enter the body
A. only through the mouth
B. only through the nose and mouth
C. through the nose, mouth and skin
D. only through the skin

87. A disease which is transferred from one person to another is called communicable. Which of the following is not communicable?
A. measles
B. whooping cough
C. chikenpox
D. appendicitis

88. You are camping and not sure if the water is safe to drink. The best thing to do is
A. let it stand in a covered jar overnight before drinking it
B. drink tea instead
C. boil it before drinking
D. take a chance and drink it

89. Milk should be put in containers that have been
A. exposed to sunshine
B. washed with soda and water
C. properly sterilized
D. soaked in water

90. The best way to prevent smallpox is to
A. get plenty of fresh air
B. get plenty of exercise
C. eat good food
D. be vaccinated

91. Pneumonia is a communicable disease that affects the
A. heart
B. lungs
C. liver
D. stomach

92. If someone at home is sick with tuberculosis, you should
A. keep him always happy
B. give everything he needs
C. never use his utensils
D. give him warm bath everyday

93. When someone has a sore eye, he should
A. stay at home
B. play under the sunshine
C. take a bath in the sea
D. play with friends only

94. The best source for drinking water is
    A. dug-well
    B. river
    C. spring
    D. stream.

95. The best and easiest way to make water safe to drink is by
    A. filtering
    B. boiling
    C. chlorinating
    D. sedimentation

96. Refuse and garbage should be placed
    A. at the back of the house
    B. anywhere
    C. in uncovered cans
    D. in covered cans

97. The best way of disposing human waste is
    A. in the open field
    B. in the river
    C. in an antipolo type of toilet,
    D. in water sealed toilet

98. Which of the following should be done to keep the community clean?
    A. hold fiestas at least every two months
    B. fence the surroundings
    C. never let astray animals roam around the community
    D. have flowering plants along the streets

99. Parents and teachers should, for the benefit of all,
    A. work cooperatively to make the community clean and beautiful
    B. have projects of their own
    C. not interfere with others business
    D. wait for the government's help

100. There is a dirty restaurant in the community. People eat there because there is no other place to go. The best thing that the teachers can do is
    A. not to buy anything from that restaurant
    B. tell the pupils not to eat in that restaurant
    C. tell the owner to keep their restaurant clean
    D. make friend with the owner of the restaurant

APPENDIX I

Key to Correction

1. A
2. C
3. C
4. A
5. C
6. B
7. D
8. D
9. A
10. D
11. A
12. B
13. D
14. B
15. A
16. A
17. C
18. B
19. D
20. A
21. C
22. B
23. D
24. C
25. C
26. D
27. C
28. A
29. D
30. A
31. B
32. B
33. C
34. A
35. D
36. C
37. D
38. D
39. A
40. A
41. C
42. C
43. B
44. D
45. D
46. C
47. A
48. D
49. B
50. B
51. D
52. A
53. B
54. A
55. B
56. D
57. C
58. B
59. C
60. B
61. A
62. C
63. D
64. A
65. D
66. C
67. B
68. A
69. A
70. D
71. C
72. B
73. B
74. B
75. D
76. A
77. B
78. B
79. A
80. C
81. B
82. C
83. A
84. B
85. A
86. C
87. D
88. C
89. C
90. D
91. B
92. C
93. A
94. C
95. C
96. D
97. D
98. C
99. A
100. C

APPENDIX J
DISTRIBUTION OF t PROBABILITY[25]

df	.1	.05	.01	.001
1	6.314	12.706	63.657	636.619
2	2.920	4.303	9.925	31.598
3	2.353	3.182	5.841	12.941
4	2.132	2.776	4.604	8.610
5	2.015	2.571	4.032	6.859
6	1.943	2.447	3.707	5.959
7	1.895	2.365	3.499	5.405
8	1.860	2.306	3.355	5.041
9	1.833	2.262	3.250	4.781
10	1.812	2.228	3.169	4.587
11	1.796	2.201	3.106	4.437
12	1.782	2.179	3.055	4.318
13	1.771	2.160	3.012	4.221
14	1.761	2.145	2.977	4.140
15	1.753	2.131	2.947	4.073
16	1.746	2.120	2.921	4.015
17	1.740	2.110	2.898	3.965
18	1.734	2.101	2.878	3.922
19	1.729	2.093	2.861	3.883
20	1.725	2.086	2.845	3.850
21	1.721	2.080	2.831	3.819
22	1.717	2.074	2.819	3.792
23	1.714	2.069	2.807	3.767
24	1.711	2.064	2.797	3.745
25	1.708	2.060	2.787	3.725
26	1.706	2.056	2.779	3.707
27	1.703	2.052	2.771	3.690
28	1.701	2.048	2.763	3.674
29	1.699	2.045	2.756	3.659
30	1.697	2.042	2.750	3.646
40	1.684	2.021	2.704	3.55.
60	1.671	2.000	2.660	3.460
120	1.645	1.960	2.576	3.291
...				

[25] N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper & Row, Publisher, 1974), p.306.

APPENDIX K

TESTING THE SIGNIFICANCE OF THE DIFFERENCE BETWEEN MEANS OF URBAN AND RURAL SCHOOLS AS TO HEALTH KNOWLEDGE

(1) URBAN	(2) RURAL	(3) D	(4) D^2
43.35	36.36	6.99	48.8601
37.63	35.82	1.81	3.2761
35.46	35.43	.03	.0009
34.54	34.67	-.13	.0169
34.32	34.28	.04	.0016
33.73	33.61	.12	.0144
33.54	30.53	3.01	9.0601
32.43	30.36	2.07	4.2849
32.15	31.24	.91	.8281
31.32	29.42	1.90	3.6100
		16.75	69.9531

Mean Difference: $\frac{16.75}{10} = 1.675$

Steps Needed in Using this Procedure

Step 1. Set up column 3, which is the difference between column 1 and column 2.

Step 2. Sum up column 3. Add the negative values and then subtract this sum from the sum of the positive values. Divide this sum by the number of pairs to compute the Mean Difference.

Step 3. Square the values in column 3 and enter these squares in column 4. Then sum column 4.

Step 4. Compute the sum of the squares for D.

Formula: $Ed^2 = ED^2 - \frac{(ED)^2}{N}$

$= 69.9531 - \frac{(16.75)^2}{10}$

$= 69.9531 - \frac{280.5625}{10}$

$$= 69.9531 - 28.0562$$

$$= 41.8969$$

Step 5. Find the standard deviation of the difference.

Formula: $SD = \sqrt{\frac{Ed^2}{N}}$

$$= \sqrt{\frac{41.8969}{10}}$$

$$= \sqrt{4.1897}$$

$$= 2.0469$$

Step 6. Find the standard error of the mean difference.

Formula: $SD = \frac{SD}{\sqrt{N-1}}$

$$= \frac{2.0469}{\sqrt{9}}$$

$$= \frac{2.0469}{3}$$

$$= .6823$$

Step 7. Compute the t ratio.

Formula: $t = \frac{\text{mean difference}}{\text{standard error of the mean difference}}$

$$= \frac{1.675}{.6823}$$

$$= 2.45$$

Critical value of t with 9 degrees of freedom: 0.05 = 2.262

APPENDIX L

TESTING THE SIGNIFICANCE OF THE DIFFERENCE BETWEEN MEANS OF GOOD PRACTICES

(1) URBAN	(2) RURAL	(3) D	(4) D^2
4.79	4.71	.08	.0064
4.62	4.29	.33	.1089
4.49	4.09	.40	.1600
4.20	4.07	.13	.0169
4.08	4.06	.02	.0004
3.98	3.93	.05	.0025
3.96	3.82	.14	.0196
3.84	3.80	.04	.0016
3.77	3.77	.00	.0000
3.71	3.63	.08	.0064
3.58	3.57	.01	.0001
3.55	3.54	.01	.0001
3.53	3.44	.09	.0081
3.50	3.38	.12	.0144
3.34	3.18	.16	.0256
3.30	3.17	.13	.0169
3.27	3.12	.15	.0225
3.12	2.86	.26	.0676
3.08	2.71	.37	.1369
3.08	2.16	.92	.8464
2.90	1.96	.94	.8836
2.82	1.89	.93	.8649
1.95	1.85	.10	.0100
1.95	1.65	.30	.0900
1.92	1.57	.35	.1225
		6.11	3.4323

Mean Difference: $\frac{6.11}{25} = .2444$

Step 1. Set up column 3, which is the difference between column I and column 2.

Step 2. Sum up column 3. Add the negative values and then subtract this sum from the sum of the positive values. Divide this sum by the number of pairs to compute the Mean Difference.

Step 3. Square the values in column 3 and enter these squares in column 4.

Step 4. Compute the sum of the squares for D.

Formula: $Ed^2 = ED^2 - \frac{(ED)^2}{N}$

$= 3.4323 - \frac{(6.11)^2}{25}$

$= 3.4323 - \frac{37.3321}{25}$

$= 3.4323 - 1.4933$

$= 1.939$

Step 5. Find the standard deviation of the difference

Formula: $SD = \sqrt{\frac{Ed^2}{N}}$

$= \sqrt{\frac{1.939}{25}}$

$= \sqrt{.0776}$

$= .2786$

Step 6. Find the standard error of the mean difference.

Formula: $SD = \frac{SD}{\sqrt{N-1}}$

$= \frac{.2786}{\sqrt{24}}$

$= \frac{.2786}{4.899}$

$= .0569$

Step 7. Compute the t ratio.

Formula: $t = \frac{\text{mean difference}}{\text{standard error of the mean difference}}$

$= \frac{.2444}{.0569} = 4.30$

APPENDIX M

TESTING THE SIGNIFICANCE OF THE DIFFERENCE BETWEEN MEANS OF BAD PRACTICES

(1) URBAN	(2) RURAL	(3) D	(4) D^2
4.12	3.62	.50	.2500
3.35	3.22	.13	.0169
2.87	2.41	.46	.2116
2.47	2.38	.09	.0081
2.44	2.12	.32	.1024
2.32	2.10	.22	.0484
2.17	2.08	.09	.0081
2.08	2.07	.01	.0001
2.00	2.05	-.05	.0025
2.00	2.05	-.05	.0025
1.98	1.89	.09	.0081
1.83	1.76	.07	.0049
1.65	1.59	.06	.0036
1.48	1.51	.03	.0009
1.39	1.21	.18	.0324
1.26	1.26	.00	.0000
1.12	1.18	-.06	.0056
1.12	1.14	-.02	.0004
1.09	1.14	-.05	.0025
1.09	1.11	-.02	.0004
1.08	1.11	-.03	.0009
1.08	1.06	.02	.0004
1.07	1.06	.01	.0001
1.06	1.05	.01	.0001
1.05	1.00	.05	.0025
		2.06	.7134

Mean Difference: $\frac{2.06}{25} = .0824$

Steps 1 to 3, see previous computations

Step 4. Compute the sum of the squares for D.

Formula: $Ed^2 = ED^2 - \frac{(ED)^2}{N}$

$= .7134 - \frac{(2.06)^2}{25}$

$$= .7134 - \frac{4.2436}{25}$$

$$= .7134 - .1697$$

$$= .5437$$

Step 5. Find the standard deviation of the difference.

Formula: $SD = \sqrt{\frac{Ed^2}{N}}$

$$= \sqrt{\frac{.5437}{25}}$$

$$= \sqrt{.0217}$$

$$= .1473$$

Step 6. Find the standard error of the mean difference.

Formula: $SD = \frac{SD}{\sqrt{N-1}}$

$$= \frac{.1473}{\sqrt{24}}$$

$$= \frac{.1473}{4.899}$$

$$= .03$$

Step 7. Compute the t ratio.

Formula: $t = \frac{\text{mean difference}}{\text{standard error of the mean difference}}$

$$= \frac{.0824}{.03}$$

$$= 2.75$$

Critical value of t with 24 degrees of freedom: 0.05 = 2.064

APPENDIX N

CURRICULUM VITAE

Name: Mariano Bitoon Baron
Date of Birth: April 29,1936
Place of Birth: Calatrava, Negros Occidental
Height: 158 cms. (5' 3")
Weight: 52 kilos
Civil Status: Married
Citizenship: Filipino

Schools Attended and Educational Attainment:

Primary: Calatrava Elem. School, Cal., Neg. Occ. 1945-50
Intermediate: Bato Elem. Sch., Toledo City, VI only, 1951
High School: La Consolacion College, Bacolod, 1st Yr. 1952
Sacred Heart Seminary, Bacolod, I-III Latin, 1953-55
San Carlos Minor Semiary, Cebu, IV-V Latin, 1956-57
College: San Carlos Major Seminary, Cebu, I-II Philosophy
Sacred Heart College, Catbalogan, E.T.C., 1960 - 61
Sacred Heart College, Catbalogan, B.S.E.(ic), 1962-63
Philippine Normal College, Manila, Certificate in School Health Education, 1973
Samar State Polytechnic College, M.Ed., 1985

Eligibilities:

Junior Teacher (Regular)
Elementary Grades Teacher

Honors and Awards Received:

Salutatorian - Grade VI, 1951
With High Honors - E.T.C., 1961
Bronze Service Award and Medal - Scouting, 1972
Silver Service Award and Medal - Scouting, 1975

Achievements:

Consistent Honor Student - I-III Latin, Bacolod City
Consistent Honor Student - IV-V Latin, Cebu City
Consistent Honor Student - I-II Philosophy, Cebu City

Achievements (continued)

President - Sacred Heart College Student Council, 1960

President - Wright District Teachers' Club, 1975

President - Wright District P.P.S.T.A. 1977

Vice Pres.- Wright District P.P.S.T.A. 1983

President - Samar State Polytechnic College Student Council, Summer 1983

President - Samar State Polytechnic College Graduate Student Council, Summer 1984

Seminars Attended:

National Seminar on Textbook Writing, Manila, 1973

National Seminar on Programmed Instruction Construction, Manila, 1973

Regional Seminar on Leadership Training in Baseball, Lawn Tennis, Track and Field and Procedure in Screening Athletes, Catbalogan, 1980

Regional Seminar-Workshop on the Implementation of the Revitalized YCAP, Catbalogan, 1980

Regional Seminar-Workshop on the Use of Media for Non-formal Education, Catbalogan, 1982

Regional Seminar-Workshop on DAP-YCAP, Catbalogan, 1979

Junior Executive Training Institute, Catbalogan, 1978

Division Seminar-Workshop on the Care and Management of School Orchards, Catbalogan, 1978

Division Seminar-Workshop in Social Studies, Catb. 1980

Division Seminar-Workshop for School Health Guardians, Catbalogan, 1979

Division Seminar-Workshop for Mathematics Teachers, 1980

Division Orientation/Training Program for District Eating Teams, Catbalogan, 1983

Division Training-Workshop on the Special Reading Program for Potential Dropouts, Catb. 1980

Division Art Education Seminar-Workshop, Catb. 1980

Division Seminar-Workshop on Team Development, 1979

Division Seminar-Workshop on Nonformal Education, 1978

First Division Seminar-Workshop on Special Educ., 1977

First Division Educational Media Seminar-Workshop, 1978

Seminars Attended (continued)

First Division Seminar-Workshop on Effective School Guidance, Catbalogan, 1975

Population Education Training Course, Catb., 1974

Division Seminar-Workshop on Forest Conservation, 1974

First Division Echo-Seminar-Workshop on Work Oriented Curriculum, Catbalogan, 1974

Division Echo-Seminar-Practicum in Music Educ., 1973

Dialects and Languages Spoken:

Cebuano

Ilonggo

Waray-waray

Pilipino

English

Spanish

Latin

Games Played:

Chess

Table Tennis

Basketball

Volleyball

Softball

Billiards

Favorite Color: Green

Favorite Flower: Rose

Motto: Behind the clouds the sun is still shining.

LIST OF TABLES

APPENDICES

Appendices