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THE UNIVERSITY OF OKLAHOMA, PH.D., 1979

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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A SURVEY OF THE STATUS OF HEALTH INSTRUCTION IN OKLAHOMA JUNIOR AND SENIOR HIGH SCHOOLS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

By

JOSEPH OLANIAWO FAWOLE

Norman, Oklahoma

May, 1979

A SURVEY OF THE STATUS OF HEALTH INSTRUCTION IN OKLAHOMA JUNIOR AND SENIOR HIGH SCHOOLS

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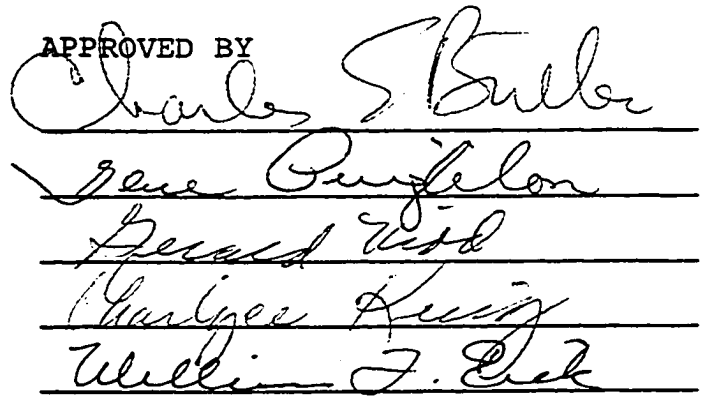

DISSERTATION COMMITTEE

DEDICATION

This dissertation is dedicated to my parents, Mr. and Mrs. Samuel Amoo Fawole, without whom I would be nowhere and nothing.

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The author wishes to express his deepest sense of appreciation and thanks to Dr. Charles E. Butler, Chairman of his Doctoral Committee and Advisor for his strong support, continuous encouragements, constructive criticism, helpful suggestions, patience and valuable guidance in planning and execution of this study.

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A SURVEY OF THE STATUS OF HEALTH INSTRUCTION IN OKLAHOMA SENIOR AND JUNIOR HIGH SCHOOLS

CHAPTER I

BACKGROUND AND NEED FOR THE STUDY

The importance of and needs for health education in schools have for several years been stressed by many national, state, and local organizations and interested individuals. The American Association for Health, Physical Education, and Recreation has expressed the belief that the education of the children is incomplete in schools without the inclusion of health in the curriculum. In support of this statement, the Association said:

> A unified approach in health teaching . . . that is a planned sequential curriculum in health education . . . is necessary to help attain the objective of education, the healthy, educated man.[1]

History does not show that health education was a neglected child in the school in the early times. As early as 1918, the Commission on the Reorganization of Secondary

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[1]The American Association for Health, Physical Education, and Recreation. "A Unified Approach to Health Teaching," The Journal of School Health, 41:171, April 1971.

Education sponsored by the National Education Association recognized it as one of the seven education objectives, and since then, its advocates have, on several occasions, expressed their strong support that it should be an integral part of the school curriculum.[2]

Expanding on the dire need of health education in the lives of school children, the Commission said:

> Health needs cannot be neglected during the period of secondary education without serious danger to the individual and the race. The secondary schools should therefore provide health instruction, inculcate health habits, organize an effective program of physical activities, regard health needs in planning work and play and cooperate with home and community in safe-guarding and promoting health interests.[3]

Either directly or indirectly, the newspapers, radio and television have advocated for an awareness of health education for youths and adults alike, through the news they carry. For example, the headlines in papers of youths involved in bicycle accidents; unnecessary pregnancies, and the television and radio's dealing with special programs on nutrition, obesity, venereal diseases and drug overdose are warnings that healthful living should be a part of life. Kime et al., justified the importance of health education by stating that:

> Education can play an important role by teaching individuals to accept more responsibility for health,

---

[2]National Education Association. Cardinal Principles of Secondary Education, Department of the Interior, No. 35 (Washington, D. C., Government Printing Office, 1918), p. 11.

[3]Ibid., p. 11.

> by improving the health care delivery system, and by emphasizing the prevention of health problems.[4]

The scientific advances of today have suggested the need for health knowledge, so that youths may better protect themselves against the dangers of medical quackery and superstition. Emphasizing the problems of the society and how they can be solved, Trump and Miller said:

> . . . society is plagued by health problems such as heart disease, obesity, lung cancer, mental illness, alcoholism, drug addiction, and venereal disease. A solution to these problems must come in part from better health programs in the public schools, and much of this responsibility is centered in the secondary schools.[5]

The importance of health instruction in schools is often stressed by the United States government dignataries on health related occasions. For example, when he was addressing a special session of the American Public Health Association on their 104th Annual Meeting on October 18, 1976, President Jimmy Carter called for an emphasis on health and nutrition education in public schools. According to the President, teaching youths "the dangers of drinking, smoking, using drugs, overeating, and eating the wrong kinds of food"[6] would be one of the helping tools for his proposed nationwide, comprehensive health program.

---

[4]Kime, Robert E., Schlaadt, Richard G., and Tritsch, Leonard E. Health Instruction: An Action Approach. (New Jersey: Prentice-Hall, Inc., 1977), p. 4.

[5]J. Lloyd Trump and Delmas F. Miller. Secondary School Curriculum Improvement, Challenges, Humanism, Accountability, 2nd ed. (Boston: Allyn and Bacon, Inc., 1973), pp. 184-185.

[6]The Nation's Health, November, 1976, p. 7.

Giving some evidences of the international recognition accorded health education, Turner et al., recorded the following statements:

> The United States Educational Scientific and Cultural Organization and the World Health Organization, as the special agencies concerned with education and health respectively, recognize health education in schools as an important part of general education and a vital means of health promotion.
>
> The International Conference on Public Education in Geneva in which the United States and 96 other countries participated, in 1967, recommended that in the planning of the school program of each country "health education should be given a place among the fundamental objectives," that it should "not only inculcate good habits in pupils" but also teach them "to respect the health and well-being of other people as well as their own" . . . .[7]

During the 1950's desperate efforts were made by educators to survey the extent of attention given to health instruction in secondary schools. One of the studies done in this area was by Sinacore, who conducted an evaluation of health education programs in the secondary schools of Suffolk County, Long Island, New York. He interviewed principals and teachers about their health programs.

Of particular interest to the researcher were areas such as: (1) teacher preparation, (2) time allotment, (3) needs and interests, (4) course content, (5) methodology, (6) facilities and equipment, (7) community resources, (8) coordination of program, and (9) administration. The results of Sinacore's

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[7]C. E. Turner, Harriett B. Randall, and Sara Louis Smith. School Health and Health Education, Sixth edition. Saint Louis: The C. V. Mosby Company, 1970, p. 5.

research showed the following discrepancies about health instruction:

1. Personnel assigned to teach the health courses were in the majority of instances unqualified according to the standards of the New York State Education Department.

2. The time allotted to the health courses was, in most cases, inadequate.

3. The relationship of health education to biology and physical education were confused and, in many instances, exaggerated by school personnel.

4. The contributions made in the area of health education by such courses as social studies, general science, and home economics are inadequate when they are expected to take the place of a health course.

5. A small number of schools utilized community resources as part of the health instruction program.

6. Only a few schools made an effort to coordinate the health instruction in the health course with the other related subject areas.

7. The establishment of a broad and functional program of health education is primarily a responsibility of the administrator.[8]

In a nationwide study of Health Instruction in the Public Schools directed by Sliepcevich between 1961-1963, some instructional problems related to health education were reported by school administrators or a person designated by him. These included the following:

> Failure of the home to encourage practice of health habits learned in school; ineffectiveness of instruction methods; parental and community resistence to

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[8]John S. Sinacore. "A Study and an Evaluation of the Health Education Programs of the Secondary Schools of Suffolk County, Long Island, New York." Dissertation Abstracts International, 17:04, unpublished doctoral dissertation, New York University, 1956, p. 787.

> certain health topics; insufficient time in the school day for health instruction; lack of coordination of the health education program throughout the school grades; inadequate professional preparation of staff; disinterest on part of some teachers assigned to health teaching; failure of parents to follow up on needed and recommended health services for children; indifference toward and hence lack of support for health education on the part of some teachers, parents, administrators, health officers, and other members of the community; neglect of health education course when combined with physical education; inadequate facilities and instructional materials; student indifference to health education; lack of specialized supervisory and consultative services.[9]

Similar weaknesses found in New York pulbic schools and by the School Health Education Study were reported in some other states surveyed a decade later. In the 1970's, several states were surveyed to investigate whether or not health instruction was included in their school curriculum. Iles, for example, conducted a survey on health instruction among the high schools in Texas which became a model for this study. His findings included the following:

> Majority of schools had (1) separate courses in health education, (2) 100 percent coeducational classes, (3) five class meetings per week, (4) class sizes ranging from twenty-five to thirty students, and (5) fifty-five minute class periods. Most schools did not provide for (1) a director or coordinator for health instruction, (2) correlation or integration of health education, (3) meetings and planning sessions between instructors, (4) a planned sequential program, (5) elective courses, and (6) funds earmarked for the program. A majority of the schools (1) used a combination of two or more methods in determining the curriculum, (2) made available a written course of study or guide to instructors, (3) used students in planning, but not in program evaluation, (4) used community resources and concepts in the choice and use of materials and to supplement instruction, and (5)

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[9]Elena M. Sliepcevich. School Health Education Study: A Summary Report. Washington, D. C., 1964, pp. 11-12.

> used the lecture as the most frequent method of instruction and films as the most frequent educational resource. Most schools (1) had available and used health related books and periodicals, (2) used textbooks published within the last five years, (3) provided a regular academic classroom located in the area of other academic classrooms, (4) provided classrooms lacking in facilities for instruction involving television, teaching machines, experiments, and graphic materials, and (5) evaluated the program on a continuous basis by the observation method. In general, the instructors in health education were (1) male, (2) caucasian, (3) from twenty to thirty years of age, (4) held a bachelor's degree, (5) had completed twelve or more semester hours in professional preparation, (6) had completed formal study within the last three years, (7) had five or less years of experience in health instruction, (8) had an area of specialization or major teaching field in a combination of health and physical education, and (9) were assigned to coaching and physical eduction classes as additional duties.[10]

In states where health is taught at present, the majority have reported the inadequacy of the program and personnel handling the dissemination of instruction.[11,12]

It cannot even be easily ascertained whether or not some states have health education in their schools; a national survey or study was not revealed in the literature. Undoubtedly, states that have been surveyed need replications of studies to encourage improvements in the area of health instruction and to keep pace with the ever-changing needs of society.

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[10]Barney R. Iles. "A Survey of Health Instruction Practices in Selected Northeast Texas Public Schools." Dissertation Abstracts International, 37(1976), 4155A (East Texas State University).

[11]Richard L. Papenfuss. "An Assessment of the Health Instruction Programs in the High Schools of Iowa," Dissertation Abstracts International, 33:03 (The University of Utah, 1972), p. 1101-A.

[12]Thomas H. Tingle. "A Study of Health Education in the Public High Schools of Utah." Unpublished doctoral dissertation, University of Utah, 1967.

One of the states that needs to be surveyed is Oklahoma. If studies have been conducted in the area of health in the State of Oklahoma, none have been done by educators. Also, the literature reviewed and evidence gathered from higher institutions of the State of Oklahoma indicate that there has not been a single dissertation written by anyone on this topic in the state.

The literature indicated that health education is underemphasized in some states. For example, Murphy found from his study of school health programs in selected public schools in Iowa, kindergarten through twelfth grade, that planned and organized school health programs in Iowa public schools were virtually nonexistent.[13] Also reporting his findings of a comprehensive evaluation of the status of the school health education program in Bedford County, Tennessee, Hamrick stated that:

> There was no indication of a sequential plan of health education opportunities for grades 1-12 . . . . Health instruction was most continuous on a grade-to-grade basis at the elementary level; least continuous at the senior high level.[14]

There has been an increasing concern about health issues such as nutrition, which is important for the physical growth

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[13]Earl P. Murphy. "A Study of School Health Programs in Selected Public Schools in Iowa, Kindergarten Through Twelfth Grade." Dissertation Abstracts, 34:01. Unpublished doctoral dissertation, Iowa State University, 1973, pp. 146-147.

[14]Michael H. Hamrick. "A Comprehensive Evaluation of the Status of the School Health Education Program in Bedford County, Tennessee." Dissertation Abstracts, 34:05. Unpublished doctoral dissertation, The University of Tennessee, 1973, pp. 2166-2167.

and development of the adolescents, alcoholism, drug use and abuse, cigarette smoking, disease prevention and control, first aid and safety, and venereal disease, to mention a few, among the people of Oklahoma. It seems important and necessary to find out if the public schools have appropriate health education programs to deal with the aforementioned health issues.

In addition to teaching the three R's in the public schools, the school laws of Oklahoma require:

> The teaching of health through the study of proper diet, the effects of alcohol beverages, narcotics, and other substances on the human system and through the study of such other subjects as will promote healthful living and help to establish proper health habits in the lives of school children.
>
> The teaching of safety through training in the driving and operation of motor vehicles and such other devices of transportation as may be desirable and other aspects of safety which will promote the reduction of accidents and encourage habits of safe living among children . . . .[15]

The extent to which this law is being adhered to can be partially determined through systematic study. If effective health education is to be provided for the secondary high school students in the state, it is necessary to assess current practices to establish a baseline upon which to base improvement procedures. Importantly, it is necessary and probably desirable to provide data against which schools and school districts can compare and assess their own programs in a general manner, assuming that each determines its own goals and objectives to meet specifically identified needs.

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[15]Leslie Fisher. School Laws of Oklahoma. Oklahoma: State Department of Education, 1976, Section 168, p. 99.

It is equally important and desirable to assess the status of health education in Oklahoma as a basis for comparison with other states. The extent to which variance exists may have implications for both state and local improvement efforts. Finally, it is possible that other states and their school districts may view Oklahoma as a model to be emulated. Clearly, such a study will enhance inter-state communications regarding the important area of health education.

Purpose of the Study

The purpose of the study was to determine the status of health instruction in selected secondary schools of the State of Oklahoma as a basis for making improvements, as appropriate. It was also the purpose of the study to contribute to the general knowledge and literature concerning health instruction in the United States. Importantly, the study purported to provide a research base, the expansion of which could serve to generate hypothesis for future researchers in the area.

Statement of the Problem

The basic problem of the study was to determine the nature of the health curriculum in junior high schools and senior high schools in the State of Oklahoma.

Specifically, this study attempted to answer the following questions:

1. How are the schools organized for health instruction?
2. How is health education curriculum determined?
3. What are the curricular course offerings in health education?
4. What are the practices and patterns in the use and selection of textbooks and other instructional materials?
5. What instructional physical facilities are available for health education?
6. What are the methods used in the evaluation of health instruction?
7. What are the characteristics of the health education instructional staff?
8. To what extent are schools fulfilling the state required health education provision of the state law?
9. To what extent do schools in Oklahoma differ in the nature of health curriculum according to: (a) size of school; (b) school grade level.

Population Sample

The population sample was 15 percent of the secondary schools, junior and senior high, in the State of Oklahoma. The schools were randomly sampled and stratified according to geographical and size variables.

One-hundred and eighteen junior and senior high schools were surveyed using a modified instrument developed by Barney Iles. The instrument is included in Appendix A.

Statistical Treatment

The data generated by the survey were analyzed by using percentage and chi-square statistics. Where appropriate, the .05 level of significance was utilized to test statistical differences.

Limitations

This study was limited in the following manner:

1. By the accuracy of the data available from official records and from the responding schools.
2. By restricting the scope of the study to grades 7-12.
3. By any possible sampling error that might have affected the generalizability of the results.

Definition of Terms

Health.--A state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity.[16]

Health Instruction.--Involves primarily a well-planned, sequential program of classroom instruction focusing on health topics. It attempts to relate these topics to students in a meaningful way, with emphasis on the individual, the family, and the community.[17]

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[16]Donald A. Read and Walter H. Greene. Creative Teaching in Health. (New York: The Macmillan Company, 1971), p. 4.

[17]Robert E. Kime, Richard G. Schlaadt and Leonard E. Tritsch. Health Instruction: An Action Approach. (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1977), p. 62.

Health Education.--Synonymous with Health Instruction.

Evaluation.--The process of finding the amount of, or determining the worth of, something.[18]

Senior High School.--A high school which includes grade levels 10, 11, and 12.[19]

Junior High School.--A secondary school organized on grade levels 7-8, 7-8-9, or 8-9.[20]

Large Schools.--Junior and senior high schools with an average daily membership of 1,000 or more students.

Medium Schools.--Junior and senior high schools with an average daily membership of 450 to 999 students.

Small Schools.--Junior or senior high schools with an average daily membership of 449 or fewer students.

Organization of the Study

Chapter I of this study includes the Introduction, Background and Need for the Study, Statement of the Problem, Population Sample, Statistical Treatment, Limitations, Definition of Terms, and Organization of the Study.

Chapter II reports the review of literature. Chapter III is concerned with methods for the collection of data. Chapter IV presents the data obtained in the study, their

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[18]Ibid., p. 272.

[19]Leslie Fisher. State of Oklahoma Department of Education Annual Bulletin for Elementary and Secondary Schools (Administrator's Handbook). Oklahoma Division of Instruction Accreditation Section, Bulletin No. 113-X, July 1978, p. 86.

[20]Ibid., p. 86.

analysis and interpretation. Chapter V contains a precise summary, findings, conclusions and recommendations for further research. Concluding the reports are the bibliography and appendices.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

This study was meant to survey the status of health instruction in selected secondary schools of the State of Oklahoma. The review of literature covered the following areas: (1) curriculum development; (2) course content; (3) provision for sex education; (4) health instruction and other subjects; (5) approaches to teaching health education; (6) evaluation of health instruction; and (7) responsibility for health instruction.

Literature Relating to Curriculum Development

Perhaps the biggest area of concern for health educators is curriculum development. What to include in the curriculum that will meet the needs of the students and the interests of the community are prominent issues of concern for school administrators as well as health educators.

To minimize criticisms from the public as well as parents in regard to the contents included in the curriculum, it has been suggested that a "Health Curriculum Steering Committee, consisting of a representative of each facet of the school environment that is affected by the

program"[21] be formed. The Curriculum Commission of the School Health Division, American Association for Health, Physical Education, and Recreation, suggested that such a committee:

> Include a representative of: administration, health teachers, school nurses, parents, students, ethnic groups in the school, and teachers from related disciplines, e.g., physical education, social science, and physical science.[22]

Such a curriculum, developed with local needs and interests as its goal, should focus attention on student interests, growth and development characteristics of the learner, community health problems, socioeconomic status, geographic location, nature of learning process, pertinent world health programs, and individual needs of the students.[23]

The inclusion of health education in the school curriculum was at first not given helpful support by school administrators. Confirming the passive attitudes of the superintendents towards health instruction, Cornacchia said:

> Superintendents have not always been interested, supportive or well-informed regarding the nature and organization of appropriate or adequate health instruction programs.[24]

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[21]Curriculum Commission of the School Health Division, AAHPER. "A Guide for Development of a Health Education Curriculum." School Health Review, Vol. 2, No. 3, September 1971, p. 35.

[22]Ibid., p. 36.

[23]Ibid., p. 36.

[24]Harold J. Cornacchia. "Guidelines for Secondary School Health Education." School Health Review, American Association for Health, Physical Education, and Recreation, November 1969, p. 22.

By the turn of the 1960's however, changes of attitudes started to be seen in the administrators. Most educators believed that the emergence of multiferous health problems of youths such as venereal disease, drug abuse, alcohol abuse, smoking, teenage pregnancies, and teenage promiscuity, to name a few, prompted the administrator's change of attitude. The aforementioned health problems actually drew these educators' attention to health education and it became obvious to the administrators that in order to curb the problems, they had to work closely with school personnel. The school administrators assumed their leadership role by formulating some guidelines for a good health education curriculum which could be of assistance to health educators. These included the following:

1. Curriculum development should focus on student achievement of desired behavioral objectives.

2. Relevant health concepts should be included at the most appropriate developmental levels of children and youth.

3. Health education should be responsive to the needs of students and the demands of society and should reflect current scientific knowledge.

4. The curriculum should focus on the positive aspect of health.

5. Students and the community should be involved in curriculum development to insure the inclusion of instruction based on health needs, interests, and problems.

6. Districts should be encouraged to explore innovative and creative instructional methods which actively involve students in the achievement of established behavioral objectives, such

> as small discussion groups, independent study, and team teaching.[25]

Some renowned organizations also supported the inclusion of health education in the school curriculum. An example of this was seen in the resolution adopted by the House of Delegates of the American Medical Association in 1960. It read thus:

> Resolved, that the American Medical Association reaffirm its long standing and fundamental belief that health education should be an integral and basic part of school and college curriculums and that state and local medical societies be encouraged to work with the appropriate health and education officials and agencies in their communities to achieve this end.[26]

Expressing its own stand on the issue, the National Education Association stated in 1963 that:

> The content of health instruction belongs in the school curriculum because such knowledge is necessary, is most efficiently learned in schools and no other public agency provides such instruction.[27]

Nemir listed some factors which could help to determine the content of a health education curriculum. These included the following:

> (1) The physical, emotional, social and intellectual needs of children; (2) the health interests of children; (3) the personal experiences of children; (4) the capacities and levels of comprehension of children at each age level; (5) the health needs of the

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[25]Ibid., p. 23.

[26]Donald A. Read and Walter H. Greene. Creative Teaching in Health. New York: The Macmillan Co., 1971, p. 5.

[27]Ibid., p. 5.

> nation, state, community, and school; (6) the objectives of health education (desirable outcomes); (7) the knowledge available from the health and behavioral sciences; (8) the contributions of specialists in health education; and (9) the background and experiences of the teacher.[28]

Literature Relating to Course Content

Several questions have been raised concerning the content areas of health education, particularly its goals and source of determination. If the course content of health education is to be meaningful, the Curriculum Commission of the School Health Division pointed out that it should be based upon the health needs of the students.[29]

The Commission went on to recommend that it might be expedient to include the opinions of the students, parents, school staff members and community health personnel, such as dentists, physicians, and public and voluntary health agencies when determining the health course contents.[30]

The author went further to state that the content of a health education curriculum is not complete without including the following information:

> (a) The human body--its anatomy, physiology, and needs in order to function at optimum level; (b) basic biological needs--foot, water, sun, exercise, sleep, rest, elimination, temperature control, shelter, independence, faith, guidance, control

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[28]Alma Nemir. The School Health Program. Second Ed. (Philadelphia: W. B. Saunders Co., 1965), p. 305.

[29]Curriculum Commission on the School Health Division, AAHPER. "A Guide for Development of a Health Education Curriculum." School Health Review, Vol. 2, No. 3, September 1971, p. 37.

[30]Ibid., p. 37.

> acceptance; (d) health problems--types of diseases, infections, injuries, use of alcohol, tobacco, and drugs, and environmental hazards; (e) health in the home and in the community--safety, sanitation, purification of water, air pollution, communicable disease control and food inspection; and (f) health problems involving broader areas--state, national, and international levels.[31]

The Joint Committee report on Health Problems in Education of the National Education Association and the American Medical Association in 1961 suggested the following health areas for inclusion in the secondary school curriculum:

> (1) The human body; (2) the balanced regimen; (3) mental health; (4) preparation for marriage, family life, and child care; (5) communicable and non-communicable diseases; (6) consumer health education; (7) accident prevention and emergency care; (8) protection from hazards of poisons, drugs, and narcotics; (9) community health; and (10) health careers.[32]

In addition to recommending that health instruction be included in the program of studies for the junior and senior high schools in the State of Oklahoma, The Oklahoma Division of Instruction and Accreditation Section listed some vital health courses which could help students in their daily lives. Among those mentioned were consumer health, community health, personal health, dental health, mental health, nutrition, safety, environmental health, tobacco and alcohol.[33]

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[31]Alma Nemir. The School Health Program, 2nd edition. (Philadelphia: W. B. Saunders Co., 1965), pp. 304-305.

[32]Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association: Health Education. (Washington, D. C., 1961), National Education Association, p. 234.

[33]Accreditation Section. State of Oklahoma Department of Education Annual Bulletin for Elementary and Secondary Schools (Administrators Handbook). Oklahoma Division of Instruction and Accreditation Section 1978-79, p. 51.

Provision for Sex Education Course

Solid health programs which include sex education can go a long way in combating the crisis plaguing the youths of today. Identifying some of the crises which have emerged since the 60's, Corry and Gray stated:

> The latest crisis is pregnancy among adolescents and it follows on the heels of the venereal disease crisis, the drug crisis, the traffic accident crisis, the drop-out crisis, ad infintum, ad nauseum.[34]

The authors wrote that a few of the causes identified by educators in the 60's are still revealed in most literature today. Some of these are: "People not accepting themselves, poor decision making skills, poor interpersonal skills and a lack of sense of responsibility."[35]

It is estimated that as many as one million girls in the 15-19 year age bracket and up to 30,000 youngsters under age 15 are pregnant each year. Most of these pregnancies are gotten rid of through abortions, but others give birth to their children outside or within marriage. This enormous number of early pregnancies and their possible negative effects could be reduced if sex education emphasizing birth control methods were taught to students.

Sex Education - Contraception

McNab strongly advocated for sex education including contraceptive education for the youths of today as a means of reducing teenage pregnancy rates. He elucidated that education

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[34]James M. Corry and Bryan J. Gray. "Ending the Constant Crisis in Health Education." Health Education, Vol. 8, No. 4, July-August 1977, p. 26.

[35]Ibid., p. 26.

institutions are a good ground for such instruction. He reinforced this concept by stating that:

> Educators should deal with the total psychosocial aspects of sexuality which help individuals understand themselves regarding their own values, feelings and attitudes as a sexual being. Contraception should be discussed in positive terms, so that effective use of contraceptives will instill comfort and confidence in interpersonal sexual relationships.[36]

He further challenged the educators and administrators of various educational institutions to ensure that contraceptive education is incorporated into their health education programs.

Kilander pointed out that there is no better place which can meet the needs of adolescent boys and girls and supply scientific answers to their questions about reproduction and related technical areas than the school. He elaborated further on the reasons for some of the important sex problems in our modern era, which may necessitate the teaching of sex education in schools. The major reasons include:

1. Many people, especially youth, need hygienic or health knowledge concerning sexual processes as they affect their personal health.

2. There is a general prevailing unwholesome attitude or mind that needs to be gradually altered concerning all sexual processes.

3. There is need for more general development of more wholesome value systems regarding sexual relationships.

4. There is a general misunderstanding of sexual life as related to health and happy marriages.

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[36]Warren L. McNab. "Contraceptive Education: Who Is Responsible for Implementation?" Health Values: Achieving High Level Wellness, Vol. 2, No. 1, January/February 1978, p. 38.

5. There is need for eugenic responsibility for sexual actions that concern future generations.

6. There is an alarming amount of veneral disease which is communicated by the sexual promiscuity and immorality of many men and women.

7. The uncontrolled sexual passions of men have led to an enormous development of organized and commercialized prostitution.

8. There are living today thousands of unmarried mothers and their illegitimate children--the result of common sexual irresponsibility and ignorance of men and women.

9. There is the matter of a lack of sexual identity today concerning femininity and masculinity, with its many implications.

10. It is necessary to reduce and hopefully eliminate those conditions which result in temptation and opportunity, especially before children and youth and some adults have acquired the necessary maturity and understanding.

11. Even if the above problems did not exist or were not so pressing, there still would be great value in sex education for making life even better for children and youth who are growing up today. The aim of sex education is not primarily to control and suppress, as in the past, but to indicate the immense possibilities for human fulfillment that human sexuality offers.[37]

The feelings of the Representative Assembly of the American Association for Health, Physical Education, and Recreation towards the teaching of sex education were made known at their 84th anniversay in 1969. They endorsed the inclusion of the course in schools by passing the following resolutions:

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[37]Frederick H. Kilander. Sex Education in the Schools. Staten Island, N. Y.: The Macmillan Company/Collier-Macmillan Limited, London, 1970, pp. 11-12.

1. That a total institutional approach to human sexuality be initiated in the schools;

2. That schools develop a sequential K-12 health education which encompass family life and sex education;

3. That schools assume leadership in involving parents and other responsible community leaders in the development and interpretation of school programs in family life and sex education . . . .[38]

The importance attached to sex education in some schools was revealed in a study of sex education in Dade County Public Secondary Schools conducted by Berry. His findings included the following:

1. Health was the subject area in which most schools indicated an integration of sex education while general science was second;

2. Some schools have mandatory courses which all students must take and in some of these courses sex education is included;

3. The participants indicated a strong belief that schools have a responsibility to provide sex education for students and the majority of the respondents would participate in the formation of a sex education program;

4. The most significant reason for not having a sex education program was a lack of trained personnel;

5. All persons, including parents, students, staff and community, should participate in the formation of a sex education program.

Berry came up with the following recommendations:

1. Each school without a sex education program should develop one in collaboration with the community;

2. All schools should include sex education as part of the total curriculum;

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[38]Charles A. Bucher. Administration of Health and Physical Education Programs Including Athletics, 5th edition. Saint Louis: The C. V. Mosby Company, 1971, p. 323.

3. All teachers should be given some type of preparation in sex education instruction;

4. Sex education should be integrated into the regular subjects whenever possible;

5. There should be a sequential program of sex education developed from kindergarten through senior high school.[39]

The findings of Charlson, in a study to determine the expressed opinions of students, parents, and clergymen of the need for family life education on the secondary school level, supported the teaching of sex education in schools. The researcher stated:

> Offering a course in family life education for the secondary students of the Gary Public Schools was found to be overwhelmingly acceptable to the students, parents, and clergymen. It may be concluded that students, parents, and clergymen generally would give strong support to the schools if a course of family life education, including sex education were offered to students on the secondary school level.[40]

Provision for Drug Education Course

Drug abuse has also become a major phenomenon among the junior and senior high schools and the society (home and community) has not attempted to deal with the problem, looking towards educators for solutions. The educators can meet the expectations of the society by playing vital roles in drug abuse education through health education.

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[39]Mildren E. Berry. "Sex Education in Dade County Public Secondary Schools." Dissertation Abstracts International, 35:07, Wayne State University, 1974, p. 4188-A.

[40]Vernon R. Charlson. "The Need for Family Life Education on the Secondary School Level." Dissertation Abstracts International, 24:10. Unpublished doctoral dissertation, Indiana University, 1963, pp. 4049-4050.

For more than eight years, George Gallop's survey has placed "use of drugs" as one of the major ten problems confronting the public schools.[41] Giving the epidemiological and demographical facts of various drug usage, Ochberg quoted a California high school principal as reporting that about 60 to 70 percent of his students had used marijuana and that "the use of alcohol, especially beer and wine, is drastically increasing even on school grounds."[42] In a survey of drug-taking among school children in Helsinki conducted by Hemminki, 44 percent of the girls and 45 percent of the boys reported regular smoking. Also, he found a positive correlation between smoking and drug-taking. Of his sample, "92 percent of the regular takers smoked compared to 33 percent of the non-takers."[43] In a study of smoking practices of selected groups of junior and senior high school students in Erie County public schools, Sallak found that 77.1 percent of the males and 54.8 percent of the females were cigarette smokers.[44]

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[41]George Gallop. "How Americans View the Public Schools." The Gallop Opinion Index, Report No. 151, February 1978, p. 14.

[42]Frank M. Ochberg. "Drug Problems and the High School Principal." National Association of Secondary School Principal Bulletin, Vol. 54, No. 345, May 1970, p. 55.

[43]Elina Hemminki. "Tobacco, Alcohol, Medicines and Illegal Drug Taking." Adolescence, Vol. 9, No. 35, Fall 1974, p. 422.

[44]Vaclav Jan Sallak. "A Study of Smoking Practices of Selected Groups of Junior and Senior High School Students in Public Schools in Erie County." Dissertation Abstracts International, 20:06. Unpublished doctoral dissertation, University of Buffalo, 1960, p. 1535.

Youths who persistently, excessively and improperly use drugs without regard to accepted medical practice tend to experience physiological and psychological side-effects resulting from their practice, and thus create multiferous problems, not only for themselves, but for their schools and community as well. Girdano and Girdano enumerated a few of the effects of amphetamines:

> (1) Constriction of blood vessels, (2) increased heart rate and strength of myocardial contraction, (3) rise in blood pressure, (4) dilation of the bronchi, (5) relaxation of intestinal muscle, (6) mydriasis, (7) increased blood sugar, (8) shorter blood coagulation time, (9) increased muscle tension, (10) stimulation of the adrenal glands.[45]

Also, the same authors wrote that "about 75 percent of all alcoholics show impaired liver function and approximately 8 percent of all alcoholics eventually develop cirrhosis . . . ."[46] Harms felt that females who overdose on narcotics would experience abnormalties of menstruation.[47]

Jacobson identified some of the general symptoms of drug abuse as:

> (a) A decline in the level of attention to school work, (b) loss of interest in sports and other activities, (c) staying out of school, (d) drastic loss of weight (heroin, opium), (e) drowsiness and

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[45]Daniel A. Girdano and Dorothy D. Girdano. Drug Education: Content and Methods, 2nd ed. Menlo Park, CA: Addison-Wesley Publishing Company, 1976, p. 119.

[46]Ibid., p. 55.

[47]Ernest Harms. Drugs and Youth: The Challenge of Today. New York: Pergamon Press, Inc., 1973, p. 2.

> idleness, (f) redness and watering of eyes (glue sniffing, (g) profuse perspiration and body odor (amphetamines) . . . .[48]

Most educators believe that a well planned drug education program can help reduce drug problems in schools. Langer advocated for the provision of "a realistic education program to prevent drug abuse . . . ."[49] Girdano and Girdano stated that:

> Drug education can (a) supply information as to what a particular drug can do and what it is unable to do, (b) analyze motivations separating underlying need fulfillment from socially acceptable excuses, and (c) provide the stimulus for students to clarify their values concerning health, risk-taking behavior, and drugs so that rational decision-making processes can be developed. The drug education program can examine reasons for use, social acceptability, attitudes toward drugs, and historical development of practices and attitudes and compare the benefits with the physical, psychological, social, and legal drawbacks.[50]

Lewis identified some guidelines which may be helpful in building a drug curriculum. These are: (1) assess the level of your students' sophistication about drugs, (2) involve students in planning (3) include alcohol and tobacco in your discussion of drug abuse, (4) compare drug use and

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[48]Paul B. Jacobson, James D. Logsdon, and Robert R. Wiegman. The Principalship: New Perspectives. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973, pp. 292-293.

[49]John H. Langer. "Guidelines for School-Police Cooperation in Drug Abuse Policy." The Education Digest, Vol. XLII, No. 2, October 1976, p. 57.

[50]Daniel A. Girdano and Dorothy D. Girdano. Drug Education: Content and Methods, 2nd ed. Menlo Park, CA: Addison-Wesley Publishing Company, 1976, p. x.

abuse, (5) do not sensationalize, (6) make drug education part of an on-going classroom experience, (7) include experimental data in the drug curriculum, (8) emphasize the motivational factors that affect a student's decision to use drugs, (9) don't forget to discuss factors that inhibit the use of drugs, (10) include the comments of drug experienced young people in the educational process.[51]

Ochberg contented that, "the principal, the student body, parents, teachers, and other interested community members need facts, not fables, about drugs and drug use."[52] Being aware of the impact of drug education as a means of combating drug problems among the students, the Representative Assembly of the American Association for Health, Physical Education, and Recreation, in 1969, adopted the following resolutions:

> . . . (1) that school programs for students be developed having these elements: (a) a sequential plan beginning in the elementary years, (b) emphasis on the decision-making process and why people use drugs, (c) increasing understanding of the social conditions that promote drug use and abuse, (d) a total institutional attitude which encourages acceptance of all children and an understanding that their individual needs, when frustrated, may lead to drug abuse, (2) that drug misuse education should be an important part of the total health education curriculum.[53]

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[51]David C. Lewis. "How the Schools Can Prevent Drug Abuse." National Association of Secondary School Principal Bulletin, Vol. 54, No. 346, May 1970, pp. 45-46.

[52]Frank M. Ochberg. "Drug Problems and the High School Principal." National Association of Secondary School Principal Bulletin, Vol. 54, No. 346, May 1970, p. 55.

[53]Resolutions Adopted by the Representative Assembly of the American Association for Health, Physical Education, and Recreation. School Health Review, September 1969, p. 12.

In the opinions of Resick, Seidel and Mason, varieties of health courses are needed by every school to meet the challenge of health problems emanating from drug abuse. According to the authors, the drug problems, which often start in the elementary, can continue throughout adult life unless efforts are made to give instruction on the subject.[54]

The teacher and the manner in which he relates to the students can have a positive impact on drug abuse education. Through adequate communication and humanistic treatment, the teacher can help the students love and appreciate their bodies and assume full responsibility for caring for them.

Another role which health educators can play in drug education is to include in their teaching, any experience they gain in courses, institutes, workshops, seminars, symposia, confrontations, colloquia, and consortia they attend.[55]

Provision for Safety Education Course

School health personnel should endeavor to include safety education in their health program. The high rate of accidents among the youths of today is enough a reason to regard this aspect of health as of paramount importance.

Speaking on the problem of accidents among the secondary school students and the possible solutions, Mayshark asserted:

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[54]Matthew C. Resick, Beverly L. Seidel and James G. Mason. Modern Administrative Practices in Physical Education and Athletics. Reading, Mass.: Addison-Wesley Pub., Co., 1975, p. 116.

[55]Angela Kitzinger. "The Role of Health Education in Drug Abuse Education." School Health Review, November 1969, p. 26.

> Accidents are the greatest killer of students of secondary school age. Also, disability from accidents ranks higher than disability from illnesses . . . majority of the accident victims among secondary school youth are boys. Motor vehicle accidents are most prevalent among secondary school students, followed by drownings and firearms accidents. Since secondary school students are in the age group having one of the highest accident rates, strong emphasis should be placed on safety education programs for them. They should be thoroughly familiar with the accident problem and they should learn how to avoid and prevent accidents without restricting their activities.[56]

Provision for Consumer Health Education Course

Most educators believe that much disservice will be done to the students if consumer health education is neglected in schools. Kime, Schlaadt and Tritsch felt that:

> School health education programs must offer consumer health education to help students become aware of fraudulent practices of quacks, recognize false claims and appeals, learn which agencies are available for consumer protection, and carefully evaluate the pros and cons of new alternatives to financing medical care.[57]

Cornacchia wrote under the premise that:

> consumer health is involved with those products and services available in society that people desire, hope, expect, or believe will have a direct effect on their own, their family's, their friends', or their neighbors' physical, mental, and social well-being (health) and about which they must make decisions to purchase and/or use.[58]

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[56]Cyrus Mayshark and Leslie W. Irwin. Health Education in Secondary Schools. Saint Louis: The C. V. Mosby Company, 1968, pp. 113-114.

[57]Robert E. Kime, Richard G. Schlaadt and Leonard E. Tritsch. Health Instruction: An Action Approach. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1977, p. 16.

[58]Harold J. Cornaachia. "Consumer Health as a Value Issue." School Health Review, Vol. 4, No. 6, November-December 1973, p. 2.

He offered some economic and ethical reasons why consumer health education should be emphasized in schools. These included the following:

> (a) Billions of dollars for health are spent yearly on worthless, useless, and sometimes harmful materials and assistance with economically deprived people being frequent victims; (b) the public is constantly being persuaded to purchase and utilize health products and services through the mass media as well as through friends, neighbors, relatives, and others; (c) medical care and health products costs are high and continue to rise in price necessitating careful and judicious consideration regarding the expenditure of funds, especially by those individuals with low and middle incomes; (d) lack of understanding about health matters prevents many individuals from making intelligent decisions in regard to the purchase and use of health products and services. These people are extremely gullible and susceptible when exposed to quacks, quackery, frauds, fads, and fallacies.[59]

Mcmahon and Tifft suggested that "consumer health education at all levels must be initiated if we are to learn how to rationally and disciminatingly spend our money for health products and services."[60] They identified four reasons why consumer health education should not be neglected in schools: (1) the public has deeply rooted ethnic, cultural, and religious health practices and beliefs which need to be eradicated; (2) consumer health education is a relatively new, unexplored aspect of health education; (3) consumer health instruction is not extensive at any age or grade level; (4)

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[59]Ibid., p. 2.

[60]Joan D. Mcmahon and Margaret A. Tifft. "College Students' Misconceptions about Consumer Health." School Health Review, Vol. 4, No. 6, November-December 1973, p. 12.

some instructors in the fields of health and consumerism are unaware of the misconceptions that are prevalent among their students.[61] Gaines concluded through her study that there should be "greater emphasis on consumer health information . . . ."[62] It is generally believed among health education authorities that one area where "the old and the young, the rich and the poor, and everyone in between"[63] often fall victims of quacks is through commercial advertisements relayed by magazines, newspapers, radio and television. To avoid being victims of deceptive advertisements, Kime and Jarvis formulated a series of questions that could be asked about any product advertised. They included the following:

> (1) What is the purpose of this ad? (2) What type of appeal (psychological approach) is the ad utilizing? (3) What message comes across to the casual viewer when confronted with the ad? (4) What information does the ad contain? (5) What benefits could possibly result from following the advice in this ad? (6) What possible harm could result from following the advice in the ad? (7) How can the benefits to be obtained from the advice in this ad be obtained without exposing oneself to the potential harms?[64]

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[61]Ibid., p. 12.

[62]Mary J. Gaines. "Consumer Health Misconceptions." Dissertation Abstracts International, 28:01, Stanford University, 1967, p. 242-B.

[63]Kenneth L. Jones, Louis W. Shainberg and Curtis O. Byer. Dimensions: Changing Concept of Health, 2nd ed. New York: Harper and Row, Publishers, Inc., 1974, p. 259.

[64]Robert E. Kime and William T. Jarvis. "Consumer Health: A Different Teaching Area?" School Health Review, Vol. 4, No. 6, November-December 1973, pp. 8-9.

Schaller and Carroll reported two important resolutions adopted by the American School Health Association on the need for consumer health education in schools as follows:

> The American people spend an estimated billion dollars a year on unneeded and sometimes harmful health and health-related products. Also many consumers show a lack of discrimination with respect to unqualified health personnel, irregular practitioners, and members of healing cults. Further, unethical advertisers resort to misconceptions and misrepresentations to sell their services and products to the people.
>
> The American School Health Association, therefore, recommends that the schools in every community incorporate in their health education curricula appropriate units on consumer education designed to improve the capacity of students to discriminate among health personnel, to evaluate health advertising, and to become intelligent consumers of health products and health services. - 1964 Resolution.
>
> One of the most significant aspects of health education today is learning how to choose, and use intelligently, health products and services. This includes discerning evaluation of claims made in advertising health and health-related products and services. Despite the importance of consumership in health, some health education programs make little or no reference to it and so-called consumer education often excludes health considerations. Such exclusion is not consistent with the huge sums spent each year by the American public for unnecessary and sometimes harmful products and services, nor with the many misconceptions that persist on health matters. The American School Health Association urges schools at all levels to accord to consumer education the high priority it so well deserves. The possession of essential consumer skills in health matters may mean the difference between health and sickness or even life and death - 1971 Resolution.[65]

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[65]Warren E. Schaller and Charles R. Carroll. Health, Quackery and the Consumer. Philadelphia: W. B. Saunders Company, 1976, pp. 358-359.

Health Instruction and Other Subjects

The question of whether or not health education should be taught as a separate subject has become a controversial issue in recent years. Many research findings have shown that it is being offered with other courses.

This was obvious in some of the findings of Mills' study conducted in Washington in 1959. His findings showed that:

> (1) Health education combined with another course was the most frequent method of offering health instruction; and (2) health instruction and physical education were commonly combined.[66]

In his own finding, Sinacore reported that:

> The relationships of health education to biology and physical education were confused and in many instances exaggerated by school personnel.[67]

Similarly, Kennison's study also found that health instruction and physical education were offered together. His finding went further to give details of the course plan and content. It was said to be on a "3-2 plan" (three days per week of physical education and two days of health which was reversed during the second semester); and the course content

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[66] Caswell A. Mills. "A Study of Certain Phase of the Health Education Programs of the Public Secondary Schools of the State of Washington." Dissertation Abstracts, 20:07. Unpublished doctoral dissertation, University of Washington, 1959, p. 2697.

[67] John S. Sinacore. "A Study and an Evaluation of the Health Education Programs of the Secondary Schools of Suffolk County, Long Island, New York." Dissertation Abstracts, 17: 04. Unpublished doctoral dissertation, New York University, 1956, p. 787.

was listed in the order of time spent from most to least (structure and function of the body, disease prevention, mental health, alcohol, drugs and tobacco, exercise and rest, safety education, personal appearance, food and nutrition, family living, public health, consumer education).[68]

As convenient as the method of correlating health education with other courses might sound to those schools which practice it, health educators did not feel that such was the effective way health should be taught in schools. Voicing his opinion on the issue, Willgoose stated that "health education must remain identifiable and visible as a subject matter area capable of standing on its own two feet."[69]

The National Study of Secondary School Evaluation said, on the same issue of teaching health with other courses, that "health education should be offered through separate courses."[70] The authors expatiated on their statement by saying that:

> The consideration of health subject matter as a part of other subject areas does not provide for development of the breadth, depth, or sequence necessary for the health education program to

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[68]James L. Kennison. "A Study of the Health Instruction Programs Offered in Selected Junior and Senior High Schools in the Commonwealth of Kentucky." Dissertation Abstracts, 30:5. Unpublished doctoral dissertation, University of Kentucky, 1965, p. 1751.

[69]Carl E. Willgoose. "Saving the Curriculum in Health Education." The Journal of School Health, 43:03, March 1973, pp. 189-190.

[70]Evaluative Criteria, 4th edition. (Washington, D. C.: National Study of Secondary School Evaluation, 1969), p. 129.

> achieve its purposes. However, the relationships between health and other curricular areas should not be neglected.[71]

The evidence gathered from literature indicated that no course could be substituted for health education. Reporting his findings on this part of the study, Sinacore stated that:

> The contribution made in the area of health education by such courses as social studies, general science, and home economics are inadequate when they are expected to take the place of health courses.[72]

In their own views, the writing group of School Health Education study directed by Sliepcevich, stated that "health education is not just superficial biology, nor watered down anatomy and physiology, nor is it the classroom extension of physical education."[73]

Literature Relating to Approaches to Teaching Health Education

Advocates of health education in schools have added another concern about the manner in which the course should be handled in schools. In the opinion of some educators, the

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[71] Ibid., p. 129.

[72] John S. Sinacore. "A Study and an Evaluation of the Health Education Programs of the Secondary Schools of Suffolk County, Long Island, New York." Dissertation Abstracts, 17: 04. Unpublished doctoral dissertation, New York University, 1956, p. 787.

[73] Elena M. Sliepcevich. School Health Education Study: A Project Report. Washington, D. C.: School Health Education Study, 1964, p. 11.

process of decision-making should not be neglected when health skills are regurgitated to students.

Greenberg, one of the supporters of the decision-making process freely expressed his opinion about it when he said:

> I propose that health education be considered a process in which the goal is to free people so that they may make health-related decisions based upon their needs and interests as long as these decisions do not adversely affect others . . . similarly, health education that teaches people the decision-making process will be more valuable than health education that tells people how to behave.[74]

To successfully disseminate health skills to the students using the decision-making process, some enslaving factors must be improved. These include: poor self-esteem associated with many health-related behaviors; alienation which consists of social isolation; normlessness and powerlessness and adverse influence from peers. Other enslaving factors mentioned by the author are: "lack of problem-solving skills; lack of decision-making skills; lack of assertiveness; lack of communication skills; fear of physicians, death, dying, pain, etc."[75]

The type of health education to be taught in schools, according to Corry and Gray, should prepare students to deal with their whole selves; beliefs, feelings, values, morals, social skills, decision-making skills, and other health related skills. The authors have recommended the inculcation of health education that:

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[74]Jerrold S. Greenberg. "Health Education as Freeing." Health Education, Vol. 9, No. 2, March/April 1978, p. 21.

[75]Ibid., p. 21.

> (1) Gives practice to students in mental health skills; (2) gives opportunity to develop formal operational thinking through the use of scientific thinking about issues and problems relating to their personal health, and (3) encourages the maturation of moral levels by accepting students together with their moral level, and then giving them opportunities to deal with moral dilemmas as well as possible solutions based on principles of the next higher moral level. Only by dealing with the whole child can health educators hope to make an impact on the current crisis of premarital pregnancy and all future crises.[76]

Another method which has proven successful in imparting health knowledge to the students is the conceptual approach. This approach was developed by the School Health Education Study under the leadership of Elena Sliepcevich.

Since its emergence, conceptual approach has been successfully used in teaching health education in schools. Most educators feel that its effectiveness can be easily identified when it is compared with lecture methods. For example, Allen and Holyoak were one of the groups of educators to identify the fact that the two methods were not synonymous. They supported their argument with this statement:

> This instructional approach differed from the traditional "lecture textbook assignment approach" in that it offered student and teacher a conceptual framework on which to base learning and instruction.[77]

The effectiveness of the conceptual approach to teaching health education was ascertained by comparing it with traditional

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[76]James M. Corry and Bryan J. Gray. "Ending the Constant Crisis in Health Education." Health Education, Vol. 8, No. 4, July/August 1977, p. 28.

[77]Robert E. Allen and Owen J. Holyoak. "Evaluation of the Conceptual Approach to Teaching Health Education: A Second Look." Journal of School Health, Vol. XLIII, No. 5, May 1973, p. 293.

approaches through the use of the Title III Project for Health Education centered in Sanford, Florida. The first phase of the study, which was conducted between 1969-1970, provided students with knowledge regarding safety, drugs, sex, nutrition, mental health, community health, personal health, and other topical issues that are integral parts of modern man through the use of conceptual and traditional approaches. The Health Behavior Inventories designed for elementary school, junior high school and senior high school students were used as instruments to investigate the difference. The result of the study showed that "the conceptual approach to teaching health was equal or superior to the traditional approach with regard to the self-reported health behavior of students."[78] However, the study reported better success of the conceptual approach when used in elementary and senior high schools than in junior high schools.[79]

Selection and Use of Textbooks and Related Materials

Many renowned health education authorities believe that the careful selection and use of textbooks can be helpful to the teachers and students, alike, in health education classes. Willgoose contended that the basic textbook for health education classes can serve as a fundamental source of information.[80]

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[78]Ibid., p. 293.

[79]Ibid., p. 294.

[80]Carl E. Willgoose. Health Teaching in Secondary Schools. Philadelphia: W. B. Saunders Company, 1972, p. 329.

Mayshark and Irwin regarded the textbook as a valuable aid to the learning process.[81] Turner, Sellery and Smith asserted that the basic textbook in health occupies a strategic position in class instruction. They also felt that it should be used by the teacher as a reference book.[82] Nemir and Schaller stated that textbooks offer factual information, principally. They also referred to textbooks as source material which may even be entertaining.[83] Turner, Randall and Smith were with the conviction that textbooks "present attractive and alluring possibilities for exploration and problem solving in the health field."[84]

Oberteuffer and Beyrer stated that text and reference books "remain the principal resource other than the teacher's own knowledge and skill."[85] Irwin, Humphrey and Johnson

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[81]Cyrus Mayshark and Leslie W. Irwin. Health Education in Secondary Schools, 2nd edition. Saint Louis: The C. V. Mosby Company, 1968, p. 262.

[82]C. E. Turner, C. Morley Sellery and Sara L. Smith. School Health and Health Education, 4th edition. Saint Louis: The C. V. Mosby Company, 1961, p. 370.

[83]Alma Nemir and Warren E. Schaller. The School Health Program, 4th edition. Philadelphia: W. B. Saunders Company, 1975, p. 486.

[84]C. E. Turner, Harriett B. Randall, and Sara L. Smith. School Health and Health Education, 6th edition. Saint Louis: The C. V. Mosby Company, 1970, p. 240.

[85]Delbert Oberteuffer and Mary K. Beyrer. School Health Education, 4th edition. New York: Harper and Row, Publishers, 1966, p. 124.

regarded the teachers who do not have access to health texts for use in their classes as very markedly handicapped.[86]

Read and Greene felt that textbooks should be selected wisely because they can and do change behavior.[87] Oberteuffer and Beyrer suggested some criteria which the teacher should follow before selecting a quality textbook. They are as follows:

1. The contents of the book should be based upon the health needs and problems of the age group for which it is written and should be directed toward the same objectives as the course.

2. The major emphasis of the text should be upon problems crucial to the pupils and important to the community in which the book is being used.

3. The content material must be scientifically accurate throughout and in complete accord with the best available knowledge in science.

4. The first chapter of the book should provide a good springboard for the year's program in health instruction by appealing to the pupils' goals, such as interest in appearance, athletics, and vocational success, and by pointing out the relationship which exists between the achievement of these goals and the satisfactory solution of the health problems covered in the remaining chapters of the book.

5. The book should be written in an interesting and readable style, with the vocabulary on the comprehension level of the pupils who use it.

6. The text should contain a glossary.

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[86]Leslie W. Irwin, James H. Humphrey and Warren R. Johnson. Methods and Materials in School Health Education. Saint Louis: The C. V. Mosby Company, 1956, p. 315.

[87]Donald A. Read and Walter H. Greene. Creative Teaching in Health. New York: The Macmillan Company, 1971, p. 118.

7. The text should cover suitable and purpose activities, participation in which will help the pupils solve their problems related to growth, development, and adjustment.

8. At the end of each chapter there should be listed suitable references of books, pamphlets, films, filmstrips, and other audiovisual aids.

9. The charts, graphs, and tables contained in the book should be meaningful to the pupils.

10. All statistics should be accurate and up to date.

11. The illustrations should be attractive, accurate, and relevant.

12. The paper and print should be of a quality and size which will minimize eyestrain and the cover should be attractive.

13. The authors should have sufficient training and experience to qualify them to write a satisfactory text.[88]

Mayshark and Irwin,[89] and Turner, Sellery and Smith[90] agreed on certain advantages of a good textbook: (1) It gives an accurate presentation of essential facts, (2) It presents an orderly and comprehensible arrangement of the material, (3) It furnishes a common core of content for the class, (4) It contains such teaching and learning aids as references, questions, summaries, reviews, exercises, pictures, maps, and diagrams, (5) It saves time.

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[88]Delbert Oberteuffer and Mary K. Beyrer. School Health Education, 4th edition. New York: Harper and Row, Publishers, 1966, pp. 120-121.

[89]Cyrus Mayshark and Leslie W. Irwin. Health Education In Secondary Schools, 2nd edition. Saint Louis: The C. V. Mosby Company, 1968, p. 262.

[90]C. E. Turner, C. Morley Sellery and Sara L. Smith. School Health and Health Education, 4th edition. Saint Louis: The C. V. Mosby Company, 1961, p. 370.

As helpful to the learning process as the use of textbooks in health education classes is, some health education authorities hold to the belief that it needs to be supplemented by reference books, magazines and professional periodicals. Oberteuffer and Beyrer expressed their opinions about the importance of reference books and magazines in health education classes when they said that, "As a matter of fact, even with a test, reference books and magazines are needed, because no school text ever written has covered or will be able to cover the entire range of student problems and interests."[91] Nemir and Schaller expressed the notion that professional periodicals contribute to health instruction in that they publish latest health information, interpret new trends in curriculum planning and stimulate teachers to more extensive and improved teaching.[92]

Literature Relating to Use of Audiovisual Materials

Authoritative sources revealed that skillfully planned and effective use of multimedia devices such as filmstrips, films, educational television, overhead projectors, tape recorder and player, and motion pictures by the teacher can greatly enhance health instruction. The multimedia equipment

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[91]Delbert Oberteuffer and Mary K. Beyrer. School Health Education, 4th edition. New York: Harper and Row, Publishers, 1966, p. 125.

[92]Alma Nemir and Warren E. Schaller. The School Health Program, 4th edition. Philadelphia: W. B. Saunders Company, 1975, p. 504.

when used, however, should not be designed to replace instruction, rather, it should supplement it.[93]

Before audiovisual materials can be motivating and beneficial to learning, Hopkins felt that the users should answer the following questions before selecting them:

1. Are the facts presented scientifically sound?
2. Do the materials meet the best standards of taste or art, and of literary quality?
3. Are they suited to the student with whom they are to be used?
4. What definite service will they perform?
5. Are they the most efficient devices for the purpose?[94]

In the opinion of Jean, three basic elements should be considered in planning the use of audiovisual aids. These include: (1) selection of the most pressing health problem, (2) consideration of the ensuing audience, and (3) determination of the budget available for the visual aids.[95]

Sutherland and Hemmer stated that for proper execution of audiovisual material, the teacher must follow some guidelines. They are as follows:

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[93]Robert E. Kime, Richard G. Schlaadt and Leonard E. Tritsch. Health Instruction: An Action Approach. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1977, p. 131.

[94]Raymond L. Hopkins. "Materials and Methods for Teaching Health Education," Journal of Health, Physical Education, and Recreation, Vol. 12, No. 8, September 1941, p. 412.

[95]Sally Lucas Jean. "Relative Values of Visual Aids in Health Education," Journal of Health, Physical Education, and Recreation, Vol. 19, No. 9, November 1948, p. 587.

> (1) Explain the purpose of using the audiovisual material to the students; (2) pose questions for students to seek answers to during the presentation; (3) use questions to get students to think about material which will increase the students' depth of understanding and learning of the curriculum content; (5) involve students in the interpretation of the message presented in the media; (6) relate the media's message to the curriculum objective; (7) select media which present the message in an effective manner; (8) select media with appropriate vocabulary level for the students; (9) help the children conceptualize; and (10) summarize the main instructional purposes of the media.[96]

When respondents were asked to identify the three types of audiovisual materials used most frequently in a survey of the types of audiovisual materials used and preferred by health teachers in grades 7-12 in the public schools of Tennessee, conducted by Nybo, those frequently mentioned were films, filmstrips and overhead transparencies. Also, those preferred by the same espondents in order of importance were films, filmstrips and educational television.[97]

Braselman listed the following unique capabilities that make film valuable to the learning process:

1. Only film can record for future reference the visual world of people and nature and the events in each as they occur.

2. Only film can enlarge or reduce the micro or macro occurrences, processes, and so on, that are hidden from or are too imperceptible for the eye to see unaided.

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[96]Mary Sutherland and William Hemmer. "Effective Teaching: Variety in the Classroom." Health Education, Vol. 9, No. 3, May-June 1978, p. 41.

[97]Valorie E. Nybo. "A Survey of the Types of Audiovisual Materials Used and Preferred by Health Teachers in Grades 7-12 in the Public Schools of Tennessee." Dissertation Abstracts International, 37:8. Unpublished doctoral dissertation, The University of Tennessee, February 1977, p. 4882-A.

3. Only film can slow down or speed up processes, events, or activities, thereby assisting intellectual comprehension and analysis.

4. Only film can visually display, through animation techniques, the essentially invisible, including abstract concepts.

5. Only film can provide a means of reviewing visual-aural experiences with consistent quality.[98]

The usefulness of the educational television in the classroom cannot be overemphasized. Willgoose pointed out that it "has been used to bring a message to a large number of pupils, to bring the community and its issues into the classroom, and to stimulate thinking and discussion of health topics."[99] Kime, Schlaadt and Tritsch suggested that through educational television, valuable and admiring programs on such topics as mental health, nutrition, venereal diseases, and environmental health, which act as useful supplements for health education classes, have been developed.[100] Axelson and Delcampo conceded that educational television could serve as attention-getter for the students in schools if carefully used in the classroom.[101]

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[98]Herbert P. Braselman. "Instructional Films: Asset or Liability." Audiovisual Instruction With Instructional Resources, Vol. 23, No. 6, September 1978, p. 14.

[99]Carl E. Willgoose. Health Teaching in Secondary Schools. Philadelphia: W. B. Saunders Company, 1972, p. 330.

[100]Robert E. Kime, Richard G. Schlaadt and Leonard E. Tritsch. Health Instruction: An Action Approach. New Jersey: Prentice-Hall, Inc., 1977, p. 133.

[101]Julien M. Axelson and Diana S. Delcampo. "Improving Teenagers' Nutrition Knowledge Through the Mass Media." Journal of Nutrition Education, Vol. 10, No. 1, January-March 1978, p. 33.

Literature Relating to Use of Guest Speakers to Supplement Instruction

Many health education authorities believe that qualified, invited speakers from different specialized fields can be good resources for health education. Expatiating on this, Nemir and Schaller stated that "quite often an individual of specialized competence can add authority and detail to important areas in health instruction. Physicians, nurses, counselors, and consultants from professional organizations or voluntary agencies can make valuable contributions."[102] Haag asserted that community co-workers such as city policemen and firemen can be used as speakers to supplement the content of the health and safety lessons.[103] Oberteuffer and Beyrer contended that:

> There are many useful resources and resource people within the school itself. Teachers will find that school nurses, dental hygienists, physicians, psychologists, home economics teachers, school custodians, speech teachers, and guidance counselors all have a contribution to make to classes in health education and are usually willing to make it on the invitation of the teacher.[104]

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[102]Alma Nemir and Warren E. Schaller. The School Health Program, 4th edition. Philadelphia: W. B. Saunders Company, 1975, p. 488.

[103]Jessie H. Haag. School Health Program. New York: Henry Holt and Company, 1958, p. 408.

[104]Delbert Oberteuffer and Mary K. Beyrer. School Health Education, 4th edition. New York: Harper and Row, Publishers, 1966, p. 124.

Both Nemir and Schaller,[105] and Haag[106] agreed that it is imperative to have the class study the subject ahead of time so that the students can understand the speaker's vocabulary and feel free to ask him questions after his speech.

Literature Relating to Facilities for Instruction

Most health education authorities agree that to promote learning, adequate facilities should be provided in school. Commenting on the part the physical environment of the school and classroom should play on the mental health of the students, Nemir and Schaller said, "the physical environment of the school and the classroom should encourage peace of mind and relaxation, as well as opportunity for activity."[107] Mayshark and Irwin suggested that satisfactory classroom environments and facilities must be provided if the educational program is to be most successful.[108]

Kilander indicated that if the teachers of other discipline areas could be provided with special classrooms there is nothing wrong in according health education the same

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[105]Alma Nemir and Warren E. Schaller. The School Health Program, 4th ed. Philadelphia: W. B. Saunders Co., 1975, p. 488.

[106]Jessie H. Haag. School Health Program. New York: Henry Holt and Company, 1958, p. 408.

[107]Alma Nemir and Warren E. Schaller. The School Health Program, 4th ed. Philadelphia: W. B. Saunders, Co., 1975, p. 292.

[108]Cyrus Mayshark and Leslie W. Irwin. Health Education in Secondary Schools. Saint Louis: The C. V. Mosby Company, 1968, p. 255.

opportunities.[109] This review of literature revealed that health instruction was, in some instances, not held in a regular classroom.

Sliepcevich, the director of a nationwide study of health instruction in the public schools found that "any classroom available" was reported as the most common facility for health teaching by between one-half and four-fifths of the respondents. The gymnasium and a special health classroom as teaching facilities ranked second. The locker room, auditorium and other space were mentioned to a far lesser extent.[110] Anderson felt that the practices of assigning the health class to some cubbyhole and massing large groups in the gymnasium or auditorium for a series of health lectures should be discarded.[111]

Turner, Randall and Smith suggested what an adequate health education classroom should look like. Included in their suggestions were furniture which can be arranged for individual or group work, a demonstration desk at the front of the room, storage space for supplies and apparatus, bulletin board display areas, and source materials in the form

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[109]Frederick Kilander. School Health Education, 2nd ed. New York: The Macmillan Company, 1969, p. 355.

[110]Elena M. Sliepcevich. School Health Education Study: A Summary Report. Washington, D. C.: School Health Education Study, 1964, p. 30.

[111]C. L. Anderson. School Health Practice, 4th ed. Saint Louis: The C. V. Mosby Company, 1968, p. 306.

of supplementary printed matter, charts, films and models. Also, projection equipment and space for library and reference materials should be available.[112]

As to the class size, Jenne and Greene recommended that to provide for personal interaction between the teacher and the student, the number of students should be held to a maximum of thirty.[113] Sliepcevich found that the average number of students assigned to health education classes at both the junior and senior high school level was slightly higher than the average reported for other academic classes.[114]

Evaluation of Health Instruction

Educators and lay people alike believe that health instruction programs should be evaluated on a regular basis. This could be a helpful tool for finding out the degree to which the program was meeting the needs of the students enrolled in the course, as well as the effectiveness of the teacher.

Kime, Schlaadt and Tritsch defined evaluation as: "the process of finding the amount of, or determining the worth of

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[112]C. E. Turner, Harriett B. Randall and Sara L. Smith. School Health and Health Education, 6th ed. Saint Louis: The C. V. Mosby Company, 1970, p. 283.

[113]Frank H. Jenne and Walter H. Greene. Turner's School Health and Health Education, 7th ed. Saint Louis: The C. V. Mosby Company, 1976, p. 86.

[114]Elena M. Sliepcevich. School Health Education Study: A Summary Report. Washington, D. C.: School Health Education Study, 1963, p. 30.

something."[115] Most authorities agree that evaluation can serve useful purposes in assisting teachers and be taught in carrying out health education programs in schools. Writing about the purposes of evaluation in health education, Willgoose stated:

> Health evaluation is employed to determine the health status of students and to properly classify them for participation in school activities. It is used to ascertain the effectiveness of the total school health effort-services, environment and instruction. More specifically, health evaluation measures both teacher and pupil efficiency by noting the degree of progress toward preconceived health goals. It also provides a basis for grading students and reporting individual student achievements. Finally, one of the most important purposes of evaluation in health education is to discover useful information about students' knowledges, attitudes and practices which may be of value when the health curriculum or course of study is being revised and updated.[116]

Expressing his own views about the evaluation of health education programs, Cornacchia stated that:

> (1) The program should be periodically evaluated in terms of effectiveness based on realistic and measurable criteria; and (2) pupils, teachers, parents, and others should be involved at regular intervals in the evaluation of the program in terms of relevance to pupils.[117]

To successfully evaluate a health program, those concerned should get a clear view of what the particular program does at a given time in a specified place. In other words,

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[115] Robert E. Kime, Richard G. Schlaadt, and Leonard E. Tritsch. Health Instruction: An Action Approach. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1977, p. 272.

[116] Carl E. Willgoose. Health Teaching in Secondary Schools. Philadelphia: W. B. Saunders Co., 1972, pp. 390-391.

[117] Harold J. Cornacchia. "Guidelines for Secondary School Health Education." School Health Review, November 1969, p. 24.

the evaluator should attempt to describe his or her findings rather than generalize.

In his own opinion, Kreuter has suggested that whoever evaluates the health program should endeavor to gather information about the effects of school health education programs. He stated that:

> I would encourage evaluators to gather, wherever possible, anecdotes through systematic interviews with students, parents and teachers. By asking students about their reactions to the program, the evaluator opens up a wide variety of data to add to a comprehensive assessment. Follow up interviews with other students, parents and faculty add information and corraborate previous data gathered. Health educators must attempt these and other creative evaluation strategies to gain a more complete and accurate picture of school health education.[118]

Yarber has stated that the duty of health instruction is to assist learners to acquire information and to aid them in making reasonable health decisions. If health is accorded its proper position in the total education of the child, then accountability in instructional practice and student health behavior should be emphasized to the teacher. Evaluation can help the teacher plan his program and to improve himself.

Evaluation, according to Yarber, can take three forms:

> The first form may be student testing. This, at the eighth and ninth grade, would give direction for instruction in junior or senior high school and the twelfth grade testing would show the effect of the entire K-12 health instructional program.
>
> The second form of evaluation is the instructional program evaluation in which teachers and administrators complete evaluative forms and questionnaires and discuss the health curriculum in conference.

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[118]Marshall K. Kreuter. "School Health Evaluation." Health Education, Vol. 8, No. 2, March/April 1977, pp. 2-3.

> The third form may be parent and community input in which they will be involved in developing the curriculum. This can enhance the public's trust and acceptance of school programs.[119]

Nemir and Schaller listed the benefits of evaluation as follows:

> (1) The evaluation process should stimulate professional interest and arouse a desire for improving the school program; (2) by use of evaluation instruments or guides, the appraisers can compare their own program and its activities with recommended standards and practices; (3) the family and the child benefit from criticisms of the program; (4) the community will share in these appraisals; (5) an evaluation is necessary in order to determine the effectiveness of health teaching and its benefits, as measured in terms of improved personal health of children, efficient health services, and healthful school living; (6) an evaluation on a nationwide basis may determine the status of health education; (7) the results of the evaluation process should stimulate in-service studies and communication of ideas among those involved, thus promoting advancement of information and procedures which will improve a school health program.[120]

Responsibility for Health Instruction

Most authorities believe that health education should be taught by qualified health educators in the same way other academic courses are handled in schools. However, the literature reviewed revealed that health teaching duties, more often than not, were handled either by physical educators or teachers certified in health, but who were not prepared to regurgitate the course to the students.

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[119] William L. Yarber. "Accounting for Health Instruction." Health Education, Vol. 8, No. 2, March/April 1977, pp. 4-5.

[120] Alma Nemir and Warren E. Schaller. The School Health Program, 4th ed. Philadelphia: W. B. Saunders Company, 1975, pp. 509-511.

One of such studies which revealed the manner in which health instruction was being handled was reported by Papenfus, when he carried out a research to assess the general status of health instruction programs in the high schools of Iowa. He found that:

> (1) health instruction programs that existed were primarily the responsibility of the physical education teachers, and (2) health instruction was rarely assigned to a specialized health educator.[121]

In his own study of the status of school health instruction programs in Ohio's public secondary schools, Jeremiah reported that "ninety percent of the teachers of health are certified in health and physical education and are not necessarily specifically prepared in health education."[122] Also, Hafen indicated, in the summary of the study he conducted to survey the health education programs in Nevada senior high schools, that the health teachers were usually physical educators.[123]

In the opinion of Mayshark and Irwin, the plan in which health and physical education are combined or the responsibility of teaching health is left in the hands of physical education

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[121]Richard L. Papenfus. "An Assessment of the Health Instruction Programs in the High Schools of Iowa." Dissertation Abstracts International, 33:03 (The University of Utah, 1972), p. 1101A.

[122]Maryalyce Jeremiah. "Ohio School Health Education Study: Status of the School Health Instruction Program in Ohio's Public Secondary Schools." Dissertation Abstracts International, 35:02 (The Ohio State University, 1973), p. 871A.

[123]Brent Q. Hafen. "An Evaluation of Health Instruction in Nevada Senior High Schools." Unpublished master's thesis, Salt Lake City, Utah: University of Utah, 1966.

teachers is not the recommended way of teaching the course. The authors took this position primarily because: "(1) physical education teachers very often are not qualified to teach health education and frequently they are not interested . . .; (2) a large number of physical education teachers in the United States have neither the background of training nor the experience to teach health education courses successfully."[124]

Mayshark and Irwin felt that the ideal way of teaching health in schools was to have the courses taught by well-qualified health educators. However, where health educators are not available, other "health specialists such as physicians, nurses, science teachers, and home economics teachers may be assigned the duty of teaching health and hygiene."[125]

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[124]Cyrus Mayshark and Leslie W. Irwin: Health Education in Secondary Schools, 2nd ed. Saint Louis: The C. V. Mosby Company, 1968, p. 68.

[125]Ibid., p. 69.

CHAPTER III

METHODOLOGY

This study was designed to survey the status of health instruction in selected secondary schools of the State of Oklahoma. To obtain the necessary information concerning the health instruction practices in various schools, the survey research methods was used. This method utilized a survey questionnaire to collect responses from school principals.

The questionnaire used was one that had already been validated by health education experts and educators and used for a similar study by Iles in Northeast Texas. Permission to use the instrument after some modifications was granted by Iles. The letter of approval to use the instrument from Iles can be found in Appendix C.

Pre-Survey Procedures

These were tasks undertaken by the researcher before the actual collection of data began. The most pertinent tasks are described below:

Choice of Research Design

The first concern of the researcher was the selection of a research design. The term "research design" is used to

manifest the method by which data was collected. The research design selected for this study was the "survey research method." Expatiating on the survey research method as a suitable way of collecting data, Nachmias and Nachmias said:

> Observational methods of data collection are suitable for investigating phenomena that can be observed directly by the researcher. However, not all phenomena are accessible to the investigator's direct observation; occasionally, therefore, the research must collect data by asking people who have experienced certain phenomena to reconstruct these phenomena for him or her. The researcher approaches a sample of individuals presumed to have undergone certain experiences and interviews them concerning these experiences. The obtained responses constitutes the data upon which the research hypothesis are evaluated. Three major methods are used to elicit information from respondents: the face-to-face interview, the mail questionnaire, and the telephone survey. These methods can be subsumed under the concept "survey research".[126]

Choice of Populations and Samples

The population of this study was comprised of the junior and senior high schools in the State of Oklahoma. The large number of these high schools necessitated the selection of a random sample. Randomization accords each member of the population an equal chance of being selected to be a part of the sample.

Writing on the practice of drawing samples from populations by researchers, Kerlinger said:

> Only rarely, however, do survey researchers study whole populations. From these samples they infer the characteristics of the defined population or

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[126]David Nachmias and Chava Nachmias. Research Methods in the Social Sciences. New York: St. Martin's Press, 1976, p. 100.

> universe. The study of samples from which inferences about populations can be drawn is needed because of the difficulties of attempting to study whole populations. Random samples can often furnish the same information as a census (an enumeration and study of an entire population) at much less cost, with greater efficiency, and sometimes greater accuracy.[127]

Shortly before the sample was drawn, the enrollments of each of the junior and senior high schools for the 1978/1979 academic session were copied by hand from the computer printout at the Data Section of the Oklahoma State Department of Education. Using the enrollment figures copied, the schools were arranged from the largest to the smallest.

Both the junior and senior high schools were categorized into three groups: large, medium and small. The large schools were defined as schools with average daily memberships of 1,000 or more. The medium schools were defined as those schools with average daily memberships of 450 to 999, and the small schools were defined as schools with average daily memberships of 449 or less. The number of junior high schools in the state was found to be 294, while that of the senior high schools was 492.

The size of the sample was determined by finding 15 percent of the total number of both the junior and senior high schools in the State of Oklahoma. This was found to be 118 junior and senior high schools.

Geographical Divisions of the State of Oklahoma

For the purpose of this study, the State of Oklahoma was divided into five geographical areas. These areas were the

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[127]Fred N. Kerlinger. Foundations of Behavioral Research, 2nd ed. New York: Holt, Rinehart & Winston, Inc., 1973, p. 411.

Northwest, Northeast, Southwest, Southeast, and Metropolitan areas. The metropolitan areas were represented by Oklahoma and Tulsa counties. The map showing the aforementioned geographical areas can be found in Appendix G.

A stratified random selection of 44 of the 294 junior high schools, and 74 of the 492 senior high schools was made. All the five geographical areas and sizes of schools were proportionately represented. Writing on the adequacy of a sample, Von Dalen stated that "no specific rules on how to obtain an adequate sample have been formulated for each situation represents its own problem."[128]

The sample was drawn through the lottery method. All the schools from each of the five geographical areas were coded separately and placed on cards. The cards for the first area were placed in a hat and thoroughly mixed. Cards were picked one at a time from the hat without replacement. The cards were mixed at each subsequent time a card was drawn. This process continued until the required number of cards were drawn for each region where the junior and senior high schools were located. Isaac and Michael described this method of drawing random samples as:

> Selecting cases or subjects in such a way that all have an equal probability of being included and the selection of one case has no influence on the selection of any other case. Drawing names from a hat, taking every tenth name from an alphabetical listing

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[128]Deobold B. Von Dalen. Understanding Educational Research. New York: McGraw Hill Book Company, 1966, p. 298.

or entering a table of random numbers are typical methods of sampling at random.[129]

Tables 1 and 2 show the junior and senior high school populations and samples drawn from each region.

TABLE 1

GEOGRAPHICAL REGIONS OF JUNIOR HIGH SCHOOLS SHOWING THE POPULATIONS AND SAMPLES DRAWN

Region		Large	Medium	Small
NE	Population	1*	12*	62*
	Sample	0**	2**	9**
SW	Population	3*	7*	62*
	Sample	0**	1**	9**
SE	Population	1*	4*	66*
	Sample	0**	1**	10**
NW	Population	0*	5*	27*
	Sample	0**	0**	4**
Metro-politan	Population	3*	32*	9*
	Sample	1**	5**	2**

*Total of these markings represent total in population (294).
**Total of these markings represent total in sample (44).

TABLE 2

GEOGRAPHICAL REGIONS OF SENIOR HIGH SCHOOLS SHOWING THE POPULATIONS AND SAMPLES DRAWN

Region		Large	Medium	Small
NE	Population	4*	9*	108*
	Sample	1**	1**	16**
SW	Population	6*	6*	106*
	Sample	1**	1**	16**
SE	Population	1*	6*	119*
	Sample	0**	1**	18**
NW	Population	1*	2*	71*
	Sample	0**	0**	11**
Metro-politan	Population	19*	16*	18*
	Sample	2**	3**	3**

*Total of these markings represent total in population (492).
**Total of these markings represent total in sample (74).

[129]Stephen Isaac and William B. Michael. Handbook in Research and Evaluation for Education and the Behavioral Sciences. San Diego, CA: Edits Publishers, 1977, p. 146.

TABLE 3

THE NUMBER OF JUNIOR HIGH SCHOOLS RANDOMLY SELECTED AND RETURNED ACCORDING TO THE SIZE OF SCHOOL AND GEOGRAPHICAL LOCATIONS

Region		Large	Medium	Small
NE	No. Sampled	0*	2*	9*
	No. Returned	0**	2**	9**
SW	No. Sampled	0*	1*	9*
	No. Returned	0**	0**	7**
SE	No. Sampled	0*	1*	10*
	No. Returned	0**	1**	7**
NW	No. Sampled	0*	0*	4*
	No. Returned	0**	0**	4**
Metro-politan	No. Sampled	1*	5*	2*
	No. Returned	1**	5**	1**

*Total of symbols represent total sample (44).
**Total of symbols represent total returns (37 or 84%).

TABLE 4

THE NUMBER OF SENIOR HIGH SCHOOLS RANDOMLY SELECTED AND RETURNED ACCORDING TO THE SIZE OF SCHOOL AND GEOGRAPHICAL LOCATIONS

Region		Large	Medium	Small
NE	No. Sampled	1*	1*	16*
	No. Returned	1**	1**	11**
SW	No. Sampled	1*	1*	16*
	No. Returned	1**	1**	13**
SE	No. Sampled	0*	1*	18*
	No. Returned	0**	1**	18**
NW	No. Sampled	0*	0*	11*
	No. Returned	0**	0**	11**
Metro-politan	No. Sampled	2*	3*	3*
	No. Returned	2**	3**	3**

*Total of these symbols represent total sample (74).
**Total of these symbols represent total returns (66 or 89%).

Development of Questionnaires

There had been various instruments developed by several researchers to survey health instruction practices in different states of the Union. However, the instrument developed by Barney Iles in Northeast Texas which had been validated by

health education experts was found most suitable for this study.

The instrument was revised to suit Oklahoma secondary schools after permission had been granted by the owner (see Appendix C for a letter authorizing the use of the instrument). For the purpose of this study, the instrument was divided into seven areas. These included:

I. General Data
II. Organization
III. Nature of Offerings
IV. Textbooks and Instructional Materials
V. Physical Facilities and Equipment
VI. Methods of Evaluation
VII. Instructional Staff

Cooperation and Support of the State Department Officials

The cooperation and support of the State Department of Education in Oklahoma in conducting the survey was sought. This researcher visited Mr. Tedford, Administrator of Comprehensive Health Education for the State of Oklahoma, and Mr. Starkey, former Administrator of Comprehensive Health Education for the State, and discussed various aspects of the study.

A letter soliciting the cooperation of the principals in completing the instrument was furnished by Mr. Tedford. A copy of Mr. Tedford's letter is in Appendix E.

Data Collection Procedures

The Oklahoma Public School Directory for the 1978/1979 school year, prepared by the State Department of Education in Oklahoma, was consulted for the sample schools' addresses. Coded questionnaires, an introductory letter explaining the nature and significance of the study and cover letters from both the chairman of the doctoral committee and the State Department seeking the cooperation of the principals along with a self-addressed, stamped envelope for a return mail were mailed to the 118 randomly selected principals. Copies of the letters sent with the questionnaires can be found in Appendices D and E.

Responses from 28 junior high schools or 64 percent of the questionnaires, and 45 senior high schools or 61 percent of the questionnaires were received from the first mailing. The researcher checked all the principals who returned their questionnaires to avoid sending them the second mailing.

At exactly two weeks after the first mailing, a second letter requesting participation, the same letter from the State Department enclosed in the first mailing, and a self-addressed stamped envelope for a return mail were sent to all the principals who had not responded. A copy of the second letter can be found in Appendix F.

The number of questionnaires received from the junior high schools in response to the second mailing was 9 or 20 percent and the number received from the senior high school was 21 or 28 percent. The total number of junior high

schools that responded in the study was 37 or 84 percent of the sample. Of the total number of participants, 1 or 3 percent represented the large schools; 8 or 22 percent represented the medium schools; and 28 or 76 percent represented the small schools. The following table illustrates these figures.

TABLE 5

NUMBER AND PERCENTAGE OF TOTAL RESPONSES FROM THE JUNIOR HIGH SCHOOLS

Large		Medium		Small		Total	
Returned	%	Returned	%	Returned	%	Returned	%
1	3	8	22	28	76	37	84

The total number of the participating senior high schools was 66 or 89 percent. Of this, 4 or 6 percent represented the large senior high schools; 6 or 9 percent represented the medium schools; and 55 or 83 percent represented the small schools. The following table illustrates these figures.

TABLE 6

NUMBER AND PERCENTAGE OF TOTAL RESPONSES FROM THE SENIOR HIGH SCHOOLS

Large		Medium		Small		Total	
Returned	%	Returned	%	Returned	%	Returned	%
4	6	8	9	55	83	67	89

Giving his opinion on what an acceptable percentage of questionnaire returns should be, Babbie expressed the notion that it "almost never happens" that all the completed questionnaires are returned. At the same time, he stated that "a response of at least 50 percent is adequate for analysis

and reporting. A response rate of at least 60 percent is good. And a response rate of 70 percent or more is very good."[130]

Data Analysis Procedures

The questionnaires were arranged according to the school sizes and geographical areas to which they belonged as they were returned. The data received from the questionnaires were also tabulated by raw numbers and percentages according to the junior and senior high schools' sizes and the five geographical areas represented.

Since the study has not been done in Oklahoma before, there was assumed to be no theoretical base for testing any hypothesis, and hence, no need for using advanced statistical techniques in analyzing the data. The result of the study was therefore reported using percentages and Chi-square methods. The questions posed in areas where Chi-square techniques were appropriate were analyzed at the .05 level of confidence. The findings from the data collected and analyzed, and the review of literature was used to draw conclusions and make recommendations concerning health instruction in the public schools of Oklahoma.

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[130]Earl R. Babbie. Survey Research Methods. Belmont, CA: Wadsworth Publishing Company, Inc., 1973, p. 164.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to determine the status of health instruction in selected secondary schools of the State of Oklahoma. This chapter presents and analyzes the data accumulated from the survey questionnaires that were returned to this researcher. The data are presented and analyzed according to the sequence of the questions as they appear on the questionnaire.

I. General Data

The first section of the questionnaire (see Appendix A) was designed to acquire general information regarding the position of the person completing the questionnaire and the specific grade levels of the responding schools.

1. Title of the Respondent Completing this Questionnaire

This section of the questionnaire was designed to identify the person completing the questionnaires. The number of the junior and senior high schools which were sent questionnaires totaled 118. Of the questionnaires sent out, 103 or 87.29 percent were returned with complete and useful information. Also, of the total questionnaires returned, 94 or 91.26

percent of them were completed by the principals of the responding schools. Only 9 or 8.74 percent of the questionnaires were completed by other persons with primary responsibilities for health instruction.

2. Grade Levels Included in School

This section of the questionnaire was designed to determine the grade levels in the schools responding as a check against this writers own definitions of those schools. A total of 53 schools or 51.50 percent completed this section. (The grade levels of the schools which were not reported in this section were shown on question 3 of the questionnaire where the respondents were to report the units of health instruction completed at each grade level in their schools.) It was assumed that the junior and senior high schools were comprised as indicated in the definition of terms on page 13 of Chapter I.

II. Organization

3. Course Units of Health Instruction Required to Successfully Complete the Highest Level in the School or for High School Graduation

The purpose of this section was to determine how much health education was required to complete the highest grade level or for high school graduation in the various school sizes.

A. Junior High Schools by Size

Table 7 clearly indicates that approximately 2/3

(62.16 percent) of all the junior high schools required one (1) or more units of health instruction to complete the highest grade offered in the schools. The small junior high schools appear to be much more variable in their requirements in health education than the other two grade levels.

The table indicates that the responding junior high schools required the completion of a mean of .38 or approximately 3/8 unit and .5 or 1/2 unit of health instruction in the medium and small schools, respectively, by the end of grade 7 or 8. The large schools required the completion of no units of health instruction by the end of these grade levels.

The responding schools also indicated that a mean of .63 or approximately 5/8 unit and .41 or 2/5 unit of health instruction were required by the medium and small schools, respectively, by the end of grade 9 or 10. The large schools required the completion of no units of health instruction by grade 9 or 10.

The table indicates that the averages of .51 or 1/2 unit and .46 or 1/2 unit (or an equivalent of 1 semester's work) of health instruction were required in the medium and small schools, respectively, by the end of grade 7 or 8 and grade 9 or 10. It was only in the medium schools that the completion of more than 1/2 unit (.63 or 5/8 unit) was required by the end of grade 9 or 10.

Generally, the amount of units of health instruction required to complete the highest grade in the large junior

TABLE 7

NUMBER OF HEALTH INSTRUCTION UNITS REQUIRED FOR COMPLETION OF HIGHEST LEVEL IN SCHOOL OR FOR HIGH SCHOOL GRADUATION
Junior High School

	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Schools Reporting 1 Required Unit	0 (0%)	0	5 (63%)	13.51	14 (50%)	37.84	19	51.35
Schools Reporting Less Than 1 Unit	1 (100%)	2.70	3 (37%)	8.11	10 (35%)	27.03	14	37.84
Schools Reporting More Than 1 Unit	0 (100%)	0	0 (100%)	0	4 (14%)	10.81	4	10.81
TOTAL	1 (100%)	2.70	8 (100%)	21.62	28 (100%)	75.68	37	100.00
(A) Mean No. of Units Required to Complete Grade 7 or 8	0	0	.38 or 3/8 U	19.79	.5 or 1/2 U	26.04	.29	45.83
(B) Mean No. of Units Required to Complete Grade 9 or 10	0	0	.63 or 5/8 U	32.81	.41 or 2/5 U	21.35	1.04	54.16
	Av = 0		Av = .51 or 1/2 U***		Av = .46 or 1/2 U		1.92	99.99**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.
***U = unit.

high schools was less than the number required to complete the highest grade in the medium and small junior high schools. It also appears that in the medium sized schools the health instruction requirement increased from grades 7-9 and decreased in the small junior high school.

B. Senior High Schools by Sizes

Table 8 indicates that the responding schools required the completion of means of .25 or 1/4 unit; .21 or approximately 1/5 unit and .37 or approximately 1/3 unit of health instruction in the large, medium and small high schools, respectively, by the end of grade 9 or 10. Only the small high schools reported the completion of units of health instruction by the end of grade 11 or 12, a mean of 1/5 unit.

The table also indicates that approximately an average of 3/10 unit, the equivalent of four weeks' work of health instruction was required for completing grade 9 or 10. An average of 1/15 unit or the equivalent of one weeks' work in health education was required for completing grade 11 or 12.

Generally, the small high schools required more units of instruction in health than large or medium senior high schools. Only small high schools required completion of units, a mean of 1/5, in health education at grades 11 and 12.

C. Comparative Data for Junior and Senior High Schools

Data revealed that more health instruction was required in the junior high school than the senior high school. Thus, as students progressed from grades 7 through 12, they tended

TABLE 8

NUMBER OF HEALTH INSTRUCTION UNITS REQUIRED FOR COMPLETION OF HIGHEST LEVEL IN SCHOOL OR FOR HIGH SCHOOL GRADUATION
Senior High School

	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Schools Reporting 1 Required Unit	0 (0%)	0	1 (20%)	1.51	26 (47%)	39.39	27	40.90
Schools Reporting Less Than 1 Unit	4 (100%)	6.06	5 (80%)	7.58	29 (53%)	43.94	38	57.58
Schools Reporting More Than 1 Unit	0 (0%)	0	0 (0%)	0	1 (14%)	1.51	1	1.51
TOTAL	4 (100%)	6.06	6 (100%)	9.09	56	84.84	66	99.99**
(A) Mean No. of Units Required to Complete Grade 9 or 10	.25 or 1/4 U	24.04	.21 or 1/5 U	20.19	.37 or 1/3 U	35.58	.28	79.81
(B) Mean No. of Units Required to Complete Grade 11 or 12	0	0	0	0	.21 or 1/5 U	20.19	.07	20.19
	Av = .25 or 1/4 U***		Av = .21 or 1/5 U		Av = .29 or 1/3 U		1.04	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.
***U = unit.

to be required to take less instruction in health education.

D. Summary

The following general information about health education requirements can be deduced relative to the junior and senior high schools in this survey:

1. All schools, junior and senior high alike, required health education.
2. The mean number of units required for graduation from or completion of any junior or senior high school in the State of Oklahoma is less than one (1) unit.
3. A greater amount of health education was required at the junior high school level than at the high school level.
4. Small schools generally required more health education instruction than either large or medium schools; large schools required less health instruction than the other size schools.

4. Discipline Area Where the Major Responsibility for Health Education is Found in the School

The purpose of this section was to determine the discipline area in which the major responsibility for health instruction was found in both the junior and senior high schools of various sizes.

A. Junior High Schools by Sizes

Table 9 indicates that one-half (49.99 percent) of the responding large, medium and small sized junior high schools

TABLE 9

DISCIPLINE AREA WHERE THE MAJOR RESPONSIBILITY FOR HEALTH INSTRUCTION IS FOUND
Junior High School

Discipline Area	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
As Separate Course	0 (0%)	0	0 (0%)	0	7 (16%)	12.07	7 (12%)	12.07
Physical Education	1 (33%)	1.72	6 (50%)	10.34	22 (51%)	37.93	29 (50%)	49.99
Home Economics	1 (33%)	1.72	3 (25%)	5.17	8 (19%)	13.79	12 (21%)	20.68
Biology	0	0	2 (17%)	3.45	4 (9%)	6.90	6 (10%)	10.35
Other	1 (33%)	1.72	1 (8%)	1.72	2 (5%)	3.45	4 (7%)	6.89
TOTAL	3 (99%)	5.16	12 (100%)	20.68	43 (100%)	74.14	58 (100%)	99.98**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

reported offering health education majorly in the physical education area. A total of 20.68 percent of the responding schools of various sizes reported home economics as the major area where health education was incorporated. The same general pattern holds true for the various school sizes. Only the small-sized junior high schools reported offering health instruction as a separate course (12.07 percent). Regardless of school size, health instruction was done primarily in physical education and secondarily, in home economics.

Generally, data revealed that the smaller the school, the more the tendency to offer health as a separate course. The larger the school, the greater the tendency to offer health instruction in other than the reported disciplines. The larger junior high schools were equally likely to offer health instruction in physical education as in home economics.

B. Senior High Schools by Sizes

Table 10 indicates that 29.82 percent and 24.55 percent of the responding senior high schools offered health education in the areas of physical education and home economics, respectively. The table further shows 22.81 percent and 19.30 percent of the schools offering health education as a separate course and in biology, respectively.

Only 3.51 percent of the responding schools reported that health education was offered in other areas such as driver education and physiology. It was apparent that small senior high schools utilized more discipline alternatives for

TABLE 10

DISCIPLINE AREA WHERE THE MAJOR RESPONSIBILITY FOR HEALTH INSTRUCTION IS FOUND
Senior High School

Discipline Area	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
As Separate Course	1 (20%)	.88	3 (30%)	2.63	22 (22%)	19.30	26	22.81
Physical Education	2 (40%)	1.75	4 (40%)	3.51	28 (28%)	24.56	34	29.82
Home Economics	2 (40%)	1.75	2 (20%)	1.75	24 (24%)	21.05	28	24.55
Biology	0	0	1 (10%)	.88	21 (21%)	18.42	22	19.30
Other	0	0	0	0	4 (4%)	3.51	4	3.51
TOTAL	5 (100%)	4.38	10 (100%)	8.77	99 (99%)	86.84	114	99.99**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

for offering health instruction than the other size levels. It is clear that regardless of size of the senior high school, health instruction took place primarily in physical education.

C. Comparative Data for Junior and Senior High Schools

Data revealed that a greater percentage (49.99 percent) of the junior high schools than the senior high schools (29.82 percent) offered health education primarily in the physical education discipline area. Senior high schools offered health instruction in home economics and as "a separate course" in roughly equal proportions, respectively (24.55 percent and 22.81 percent). This compares with the junior high schools, where health education was offered in the same discipline areas at a ratio of almost 2 to 1 (20.68 percent to 12.07 percent).

Data also revealed that there was a greater tendency to offer health education as a separate course in the senior high schools than in the junior high schools; but junior high schools were twice as likely to offer health instruction in other than the reported discipline area.

D. Summary

The following general statements can be made about the discipline areas where health education is found in the junior and senior high schools.

1. A majority of the junior and senior high schools offered most of their health instruction in the areas of physical education and home economics.

2. A greater frequency was reported by small schools at both the junior and senior high levels for offering health as a separate course than by large or medium schools.
3. Health education offered in the biology discipline was reported more frequently in the senior high schools than in the junior high schools.
4. For both the junior and senior high schools, health education was offered as a separate course and in other discipline areas such as physical education, home economics and biology.

5. How the Junior and Senior High Schools are Rated in Terms of Organization for an Effective Health Education

A. Ratings in Terms of Adequacy of Organization for Health Instruction According to School Levels

This section of the questionnaire was designed to compare the junior high schools' ratings of organization for health instruction with the senior high schools'. The respondents were asked to rate their schools in terms of their perceptions about how adequately they were organized for instruction.

The data were tabulated and analyzed using chi-square method (see Table 11) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusion drawn are a result of Table 11. There were no significant differences in

TABLE 11

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF ORGANIZATION ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	20	20.4757	0.0111	37	36.5243	0.0062
Undecided	7	7.5437	0.0392	14	13.4563	0.0220
Inadequate	10	8.9806	0.1157	15	16.0194	0.0649

Calculated chi-square = 0.26; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 12

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF ORGANIZATION ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	2	2.7670	0.2126	10	7.7476	.6548	45	46.4854	.0475
Undecided	0	1.0194	1.0194	2	2.8544	.2557	19	17.1262	.2050
Inadequate	3	1.2136	2.6296	2	3.3981	.5752	20	20.3883	.0074

Calculated chi-squares = 5.61; the critical chi-square value = 9.49 with 4 degrees of freedom;[131] level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

the schools as indicated by the critical chi-square value at the .05 level of significance.

B. Ratings in Terms of Adequacy of Organization for Health Instruction According to School Sizes

The respondents were asked to rate their schools in terms of their perception about how they were organized for instruction. The data were tabulated and analyzed using chi-square method (see Table 12) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as shown in Table 12. There were no significant differences in the various school sizes in terms of organization for effective health education as indicated by the critical chi-square value at the .05 level of significance.

III. Nature of the Curriculum

6. How the Curriculum in Health Education is Determined at the School

This section was designed to determine how the health education curricula were determined in the junior and senior high schools of all sizes.

A. Junior High Schools by Size

Table 13 indicates that about one-half (52.27 percent) of the junior high schools of all sizes reported that their curricula in health education was determined by the needs of the students and community. The next most popular method of determining the health education curriculum identified by the

TABLE 13

METHOD OF DETERMINING CURRICULUM FOR HEALTH INSTRUCTION
Junior High School

Method of Determining Curriculum	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Adopted Textbooks	0 (0%)	.00	0 (0%)	.00	13 (38%)	29.55	13	29.55
Guide developed by curriculum director, supervisor or committee	0 (0%)	.00	3 (33%)	6.82	5 (15%)	11.36	8	18.18
Guide developed by specialists	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
Needs of students and community	1 (100%)	2.27	6 (67%)	13.64	16 (47%)	36.36	23	52.27
TOTAL	1 (100%)	2.27	9 (100%)	20.46	34 (100%)	77.27	44	100.00

*Percentage of the total.
**Total does not equal 100 percent because of rounding off error factor.

responding schools was by adopted textbooks. This accounted for 29.55 percent. Data revealed that the method of determining curriculum least used by the responding schools was a "guide developed by recognized specialists."

As junior high schools get smaller, the "adopted text" method is more frequently reported; but as they get larger, the "needs of the community and students" method is more frequently reported.

B. Senior High Schools by Size

Table 14 reveals that more than one-half (62.02 percent) of the senior high schools of all sizes indicated that their health education curricula was determined by the "needs of the students and community". Data revealed that the second most common method of determining health education curricula checked by the responding schools was by "adopted textbooks". While the most likely method of determining health education checked by the responding schools was based solely on the needs of the students and community (62.02 percent), the least likely chosen type was "guide developed by recognized specialists" (0.00 percent).

The data indicated that as the senior high schools get larger, the greater the tendency to rely on guides developed by curriculum directors, supervisors or committees.

C. Comparative Data for Junior and Senior High Schools

Data revealed that the most frequently used method of determining curricula for health education in both the junior and senior high schools was that determined by the "needs of

TABLE 14

METHOD OF DETERMINING CURRICULUM FOR HEALTH INSTRUCTION
Senior High School

Method of Determining Curriculum	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Adopted Textbooks	1 (20%)	1.27	0 (0%)	.00	21 (31%)	26.58	22	27.85
Guide developed by curriculum director, supervisor or committee	2 (40%)	2.53	2 (33%)	2.53	4 (6%)	5.06	8	10.12
Guide developed by specialists	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
Needs of students and community	2 (40%)	2.53	4 (67%)	5.06	43 (63%)	54.43	49	62.02
TOTAL	5 (100%)	6.33	6 (100%)	7.59	68 (100%)	86.07	79	99.99**

*Percentage of the total.
**Total does not equal 100 percent because of rounding off error factor.

the students and community". This choice accounted for 52.27 percent and 62.02 percent of the junior and senior high schools, respectively.

The two other methods of determining the curricula used by both the junior and senior high schools, in descending order of importance, were the "adopted textbooks" and "guide developed by curriculum director, supervisor or committee".

As schools get larger, the frequencies reported for the use of the adopted text method decreases for both junior and senior high schools.

D. Summary

The following general information concerning the methods of determining health education curriculum apply to the junior and senior high schools in the State of Oklahoma.

1. The bulk of the junior and senior high schools developed health education curricula based solely on the needs of the students and community.
2. The two methods of determining health education curriculum next most often used by both the junior and senior high schools were "adopted textbooks" and the "guide developed by curriculum director, supervisor or committee".
3. None of the junior and senior high schools developed their health education curricula with the aid of a guide prepared by nationally recognized specialists.

7. Course Content Included in the School Health Curriculum

This section was designed to determine the course content areas included in the health education curricula of the responding junior and senior high schools of various sizes.

A. Junior High School by Size

Table 15 indicates that the course content areas primarily emphasized in the health curriculum by the responding junior high schools, in descending order of magnitude, were: Use and Abuse of Tobacco, Acohol and Drugs (15.38 percent); Nutrition (14.29 percent); Health and Fitness for Daily Living (13.74 percent); and Growth and Development (12.64 percent). The next category of course contents reported in descending order were: Environmental Health and Safety; Prevention of Communicable Diseases; Sex Education for Family Living; Community Health; Consumer Health; and Chronic and Degenerative Diseases. Generally, the course content areas emphasized by the different school sizes varied considerably. While the top priorities of the small schools were in nutrition and use and abuse of tobacco, alcohol and drugs; the medium and large schools indicated growth and development their top priority content area. Chronic and degenerative disease received the least attention in all the school sizes.

As the junior high schools size increased, the reported frequencies for the following content areas increased: consumer health and tobacco, alcohol and drug abuse. As they decreased in size, the reported frequencies for the following

TABLE 15

COURSE CONTENT AREAS INCLUDED IN HEALTH INSTRUCTION CURRICULUM
Junior High School

Content Area	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Consumer Health	1 (20%)	.55	3 (7%)	1.65	9 (7%)	4.94	13	7.14
Community Health	0 (0%)	.00	3 (7%)	1.65	10 (8%)	5.49	13	7.14
Growth and Development	1 (20%)	.55	8 (18%)	4.40	14 (10%)	7.69	23	12.64
Nutrition	1 (20%)	.55	5 (11%)	2.75	20 (15%)	10.99	26	14.29
Sex Education for Family Living	0 (0%)	.00	4 (9%)	2.20	10 (8%)	5.49	14	7.69
Prevention of Communicable Diseases	0 (0%)	.00	3 (7%)	1.65	14 (10%)	7.69	17	9.34
Chronic and Degenerative Diseases	0 (0%)	.00	1 (2%)	.55	3 (2%)	1.65	4	2.20
Environmental Health & Safety	0 (0%)	.00	5 (11%)	2.75	14 (10%)	7.69	19	10.44
Health and Fitness for Daily Living	1 (20%)	.55	5 (11%)	2.75	19 (14%)	10.44	25	13.74
Use & Abuse of Tobacco, Alcohol & Drugs	1 (20%)	.55	7 (16%)	3.85	20 (15%)	10.99	28	15.39
Other	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	5 (100%)	2.75	44 (99%)**	24.20	133 (99%)**	73.05	182	100.01**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

content areas increased: community health, growth and development, prevention of communicable diseases and chronic and degenerative diseases.

B. Senior High School by Size

Table 16 indicates that more attention was given by the responding high schools to content areas such as Use and Abuse of Tobacco, Alcohol and Drugs (14.78 percent); Nutrition (14.25 percent); Growth and Development (12.09 percent); and Health and Fitness for Daily Living (11.56 percent) than any others listed. The table also reveals that the least emphasized course content in the small schools was Chronic and Degenerative Diseases, and that of the medium school was Sex Education for Family Living. Data revealed that course content areas like Consumer Health, Growth and Development, Chronic and Degenerative Diseases and Environmental Health and Safety had tendencies to be least emphasized in the large schools.

Reported frequencies of community health, prevention of communicable diseases and health fitness for daily living increased with school size. Reported frequencies of growth and development and environmental health and safety increased as school size decreased.

C. Comparative Data for Junior and Senior High Schools

Data indicated that the two most emphasized content areas in both the junior and senior high school health instruction courses were "Use and Abuse of Tobacco, Alcohol and Drugs", and "Nutrition". While the junior high schools made "Health and Fitness for Daily Living" their third content area of

TABLE 16

COURSE CONTENT AREAS INCLUDED IN HEALTH INSTRUCTION CURRICULUM
Senior High School

Content Area	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Consumer Health	0 (0%)	.00	3 (8%)	.81	17 (5%)	4.57	20	5.38
Community Health	I (8%)	.26	3 (8%)	.81	20 (6%)	5.38	24	6.45
Growth and Development	0 (0%)	.00	5 (12%)	1.34	40 (13%)	10.75	45	12.09
Nutrition	3 (23%)	.81	5 (12%)	1.34	45 (14%)	12.10	53	14.25
Sex Education for Family Living	2 (15%)	.54	1 (3%)	.26	34 (11%)	9.14	39	9.94
Prevention of Communicable Diseases	2 (15%)	.54	4 (10%)	1.08	28 (7%)	7.52	34	9.14
Chronic and Degenerative Diseases	0 (0%)	.00	3 (8%)	.81	15 (5%)	4.03	18	4.84
Environmental Health & Safety	0 (0%)	.00	4 (10%)	1.08	35 (11%)	9.41	39	10.49
Health and Fitness for Daily Living	3 (23%)	.81	5 (12%)	1.34	35 (11%)	9.41	43	11.56
Use & Abuse of Tobacco, Alcohol & Drugs	2 (15%)	.54	5 (12%)	1.34	48 (15%)	12.90	55	14.78
Other	0 (0%)	.00	2 (5%)	.54	2 (1%)	.54	4	1.08
TOTAL	13 (99%)**	3.50	40 (100%)	10.75	319 (99%)**	85.75	372	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

emphasis, the senior high schools selected "Human Growth and Development" as their third top content area of emphasis.

Among the least emphasized content areas in the junior high schools, in descending order, were "Community Health" or "Consumer Health" (with ties); "Sex Education for Family Living" and "Chronic and Degenerative Diseases". Those course content areas least emphasized by the senior high schools included "Community Health". "Consumer Health", "Prevention of Communicable Disease", and "Chronic and Degenerative Diseases".

D. Summary

The following general statements can be made about the course content areas in health education curriculum of the junior and senior high schools.

1. The two most frequently emphasized courses in both the junior and senior high schools were "Use and Abuse of Tobacco, Alcohol and Drugs", and "Nutrition".
2. The least emphasized course content area in both the junior and senior high schools was "Chronic and Degenerative Diseases".
3. Generally, both the junior and senior high schools covered a broad range of health topics in their health instruction.

8. Methods or Techniques Used in Teaching Health Education in the School

This section was designed to determine the methods or techniques used in health instruction in the junior and senior

high schools of all sizes.

A. Junior High Schools by Size

Table 17 reveals that the teaching methods or techniques most frequently used in health instruction in descending order by the responding schools were the lecture method (18.88 percent), the use of textbooks (17.78 percent), demonstrations (12.78 percent), and discussion panel or teaching initiated (12.77 percent). Data revealed a tendency to use role-playing (2.22 percent) and dramatizations (3.34 percent) techniques in teaching health education least in schools of all sizes.

The percentage of frequencies indicating use of exhibits, increased with school size; the percentage of frequencies indicating the use of field trips, textbooks and role playing increased as school size decreased.

B. Senior High Schools by Size

Table 18 reveals that the five most important methods or techniques used in health instruction by the responding schools were the lecture method (22.85 percent), the use of textbooks (17.14 percent), demonstrations (15 percent), oral and written reports (12.49 percent), and discussion: panel or teacher initiated (12.14 percent). The next techniques used in descending order of importance included field trips, exhibits, problem-solving method, role-playing, and dramatization.

Data included that role-playing and dramatization techniques were utilized least in all the responding schools.

The percentage of reported frequencies decreased with school size relative to the use of demonstrations and

TABLE 17

TEACHING METHODS OR TECHNIQUES USED IN HEALTH INSTRUCTION
Junior High School

Methods or Techniques	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Lecture Method	1 (14%)	.56	8 (15%)	4.44	25 (21%)	13.88	34	18.88
Demonstrations	1 (14%)	.56	8 (15%)	4.44	14 (12%)	7.78	23	12.78
Exhibits	1 (14%)	.56	5 (10%)	2.78	7 (6%)	3.89	13	7.23
Field Trips	0 (0%)	.00	4 (7%)	2.22	8 (7%)	4.44	12	6.66
Dramatizations	0 (0%)	.00	3 (5%)	1.67	3 (3%)	1.67	6	3.34
Problem-Solving (Individual/Group)	0 (0%)	.00	4 (7%)	2.22	4 (3%)	2.22	8	4.44
Discussion: Panel or Teacher Initiated	1 (14%)	.56	6 (11%)	3.33	16 (14%)	8.88	23	12.77
Oral and Written Reports	1 (14%)	.56	6 (11%)	3.33	14 (12%)	7.78	21	11.67
Use of Textbooks	1 (14%)	.56	8 (15%)	4.44	23 (19%)	12.78	32	17.78
Role-Playing	0 (0%)	.00	3 (5%)	1.67	1 (8%)	.55	4	2.22
Other	1 (14%)	.56	0 (0%)	.00	3 (3%)	1.67	4	2.23
TOTAL	7 (98%)**	3.92	55 (100%)	30.54	118 (100%)	65.54	180	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

TABLE 18

TEACHING METHODS OR TECHNIQUES USED IN HEALTH INSTRUCTION
Senior High School

Methods or Techniques	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Lecture Method	4 (29%)	1.43	5 (17%)	1.78	55 (23%)	19.64	64	22.85
Demonstrations	4 (29%)	1.43	5 (17%)	1.78	33 (14%)	11.79	42	15.00
Exhibits	1 (7%)	.36	1 (3%)	.36	15 (6%)	5.36	17	6.08
Field Trips	0 (0%)	.00	1 (3%)	.36	21 (9%)	7.50	22	7.86
Dramatizations	0 (0%)	.00	0 (0%)	.00	1 (4%)	.36	1	.36
Problem-Solving (Individual/Group)	0 (0%)	.00	1 (3%)	.36	11 (5%)	3.93	12	4.29
Discussion: Panel or Teacher Initiated	2 (14%)	.71	4 (14%)	1.43	28 (12%)	10.00	34	12.14
Oral and Written Reports	2 (14%)	.71	5 (17%)	1.78	28 (12%)	10.00	35	12.49
Use of Texbooks	1 (7%)	.36	5 (17%)	1.78	42 (18%)	15.00	48	17.14
Role-Playing	0 (0%)	.00	1 (3%)	.36	2 (8%)	.71	3	1.07
Other	0 (0%)	.00	1 (3%)	.36	1 (4%)	.36	2	.72
TOTAL	14 (100%)	5.00	29 (97%)**	10.35	237 (100.6%)	84.65	280	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

discussion. Relative to school size, the following teaching methods increased in frequency as the school got smaller: field trips, dramatizations, use of textbooks and role-playing.

C. Comparative Data for Junior and Senior High Schools

Data revealed that the two most frequently used methods to disseminate health education to students in both the junior and senior high schools were the lecture method and use of textbooks. While the next two important equally ranked methods used in the junior and senior high schools were "demonstrations", and "discussions: panel or teacher initiated"; the next two used in the senior high schools in descending order were "demostrations" and "oral and written reports". Also, while the least method used in teaching health education in the junior high schools was "role-playing", the least used in the senior high schools was "dramatizations".

D. Summary

The following general statements can be made about the methods used in health instruction at both the junior and senior high schools.

1. The lecture method and the texbook were the most frequently reported methods used in health instruction.
2. Generally, both the junior and senior high schools used all the methods in Table 17 or 18 in one form or the other.

9. How the Curriculum is Rated in Terms of Adequacy for an Effective Health Education

A. How Curricula Content Areas are Rated in Terms of Adequacy for Health Instruction by School Level

This section was designed to compare the junior and senior high schools' ratings of their current curricula in terms of adequacy for an effective health education. The respondents were asked to rate their schools in terms of their perceptions about how adequately their curricula were developed for health instruction.

The data were tabulated and analyzed using chi-square method (see Table 19) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 19. There were no significant differences in the schools' ratings as indicated by the critical chi-square value, at the .05 level of significance.

A. How Curricula Content Areas are Rated in Terms of Adequacy for Health Instruction by School Sizes

The respondents were asked to rate their schools in terms of their perceptions of how adequately their curricula were developed for health instruction. The data were tabulated and analyzed using chi-square method (see Table 20) as a convenience mechanism rather than a hypothesis testing machine.

The conclusions drawn are as shown in Table 20. There were no significant differences in the various school sizes' ratings in terms of curricula adequacy as indicated by the critical chi-square value, at the .05 level of significance.

TABLE 19

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF CURRICULAR ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	22	21.5534	0.0093	38	38.4466	0.0052
Undecided	6	7.5437	0.3159	15	13.4563	0.1771
Inadequate	9	7.9029	0.1523	13	14.0971	0.0854

Calculated chi-square = 0.75; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 20

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF CURRICULAR ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	2	2.9126	0.2860	10	8.1553	0.4172	48	48.9320	.0178
Undecided	0	1.0194	1.0194	3	2.8544	0.0074	18	17.1262	.0446
Inadequate	3	1.0680	3.4952	1	2.9903	1.3247	18	17.9417	.0002

Calculated chi-square = 6.61; the critical chi-square value = 9.49 with 4 degrees of freedom;[131] level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

B. How Curricular Instructional Techniques are Rated in Terms of Adequacy for Health Instruction by School Level

This section was designed to compare the junior high schools' ratings of instructional techniques in terms of adequacy for an effective health instruction with those of the senior high schools. The respondents were asked to rate the adequacy of the instructional techniques in their schools for an effective health instruction as they perceived them.

The data were tabulated and analyzed using chi-square method (see Table 21) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 20. There were no significant differences in the schools' ratings as indicated by the critical chi-square value, at the .05 level of significance.

B. How Curricular Instructional Techniques are Rated in Terms of Adequacy for Health Instruction by School Sizes

The respondents were asked to rate the adequacy of the instructional techniques in their schools for an effective health instruction as they perceived them. The data were tabulated and analyzed using chi-square method (see Table 22) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as shown in Table 22. There were no significant differences in the various school sizes' ratings in terms of instructional techniques adequacy as indicated by the critical chi-square value, at the .05 level of significance.

TABLE 21

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF INSTRUCTIONAL TECHNIQUES ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	28	24.4272	0.5226	40	43.5728	0.2930
Undecided	5	7.5437	0.8577	16	13.4563	0.4808
Inadequate	4	5.0291	0.2106	10	8.9709	0.1181

Calculated chi-square = 2.48; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 22

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF INSTRUCTIONAL TECHNIQUES ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	4	3.3010	0.1480	11	9.2427	0.3341	53	55.4563	.1088
Undecided	0	1.0194	1.0194	3	2.8544	0.0074	18	17.1262	.0446
Inadequate	1	0.6796	0.1510	0	1.9029	1.9029	13	11.4175	.2193

Calculated chi-square = 3.94; the critical chi-square value = 9.49 with 4 degrees of freedom;[131] level of significance - .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

IV. Textbooks and Instructional Materials

10. Instructional Resources Used for Health Education

This section was designed to determine the instructional resources available for use in health education classes in the junior and senior high schools.

A. Junior High Schools by Size

Table 23 indicates that the responding schools generally used textbooks (25.22 percent) as instructional materials for health education most often. Of almost equal use were instructional materials like outside speakers (18.26 percent), magazines (16.52 percent), and charts (15.65 percent). The least used instructional materials in all the school sizes were articles (7.83 percent) and journals (4.35 percent).

Generally, it appears from the table that textbooks were used most often as instructional materials and journals were used least in this manner.

The small schools reported using the textbook as instructional materials at twice the rate of the medium sized schools, but used articles at less than one-half the rate of the medium schools.

Importantly, it appears that junior high schools of all sizes employ the full range of instructional resources. The larger the junior high school, the greater the reported percentage of frequencies indicating use of the following instructional materials: outside speakers, magazines and articles.

TABLE 23

USE OF TEXTBOOKS AND INSTRUCTIONAL MATERIALS
Junior High School

Textbooks and Instructional Materials	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Textbooks on Health	0 (0%)	.00	6 (16%)	5.22	23 (31%)	20.00	29	25.22
Charts	1 (25%)	.87	4 (11%)	3.48	13 (17%)	11.30	18	15.65
Journals	0 (0%)	.00	3 (8%)	2.61	2 (3%)	1.74	5	4.35
Outside Speakers	1 (25%)	.87	7 (19%)	6.09	13 (17%)	11.30	21	18.26
Magazines	1 (25%)	.87	7 (19%)	6.09	11 (15%)	9.56	19	16.52
Posters	0 (0%)	.00	5 (14%)	4.35	9 (12%)	7.82	14	12.17
Articles	1 (25%)	.87	4 (11%)	3.48	4 (5%)	3.48	9	7.83
TOTAL	4 (100%)	3.48	36 (98%)**	31.32	75 (100%)	65.21	115	100.00

*Percentage of the total.
** Total does not equal 100 percent because of the rounding off error factor.

B. Senior High Schools by Size

Table 24 indicates that the responding schools used the textbook as instructional materials in health education instruction (23.10 percent) more often than other materials. The table also reveals that relatively equal proportion of the responding schools used magazines, outside speakers, and articles. Data revealed that journals were used least in all the different sizes of responding senior high schools. Generally, reported percentages of journal usage increased as schools became smaller.

It appears that large high schools used outside speakers as instructional resources more often than other size schools. Schools of all sizes generally employ the full range of material alternatives.

C. Comparative Data for Junior and Senior High Schools

Data revealed there was a greater percentage of reported frequencies by the junior and senior high schools in the State of Oklahoma indicating use of textbooks for health instruction. While the use of outside speakers was the second most frequently used method of instruction for health in the junior high schools, magazines were the second instructional material utilized in the senior high schools. Also, while the use of articles as an instructional material was among the least ranked in the junior high schools, it stood as one of the top ranked techniques in the senior high schools. In both the junior and senior high schools, journals were the least used instructional material in health education classes.

TABLE 24

USE OF TEXTBOOKS AND INSTRUCTIONAL MATERIALS
Senior High School

Textbooks and Instructional Materials	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Textbooks on Health	3 (21%)	1.19	5 (20%)	1.99	50 (24%)	19.92	58	23.10
Charts	2 (14%)	.80	4 (16%)	1.59	24 (11%)	9.56	30	11.95
Journals	0 (0%)	.00	2 (8%)	.80	16 (8%)	6.37	18	7.17
Outside Speakers	4 (29%)	1.59	5 (20%)	1.99	29 (14%)	11.55	38	15.13
Magazines	1 (7%)	.40	5 (20%)	1.99	32 (15%)	12.75	39	15.14
Posters	2 (14%)	.80	2 (8%)	.80	27 (13%)	10.76	31	12.36
Articles	2 (14%)	.80	2 (8%)	.80	34 (16%)	13.55	38	15.15
TOTAL	14 (99%)**	5.58	25 (100%)	9.96	212 (101%)**	84.46	251	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

D. Summary

The following general statements can be made about the use of textbooks and instructional materials in health education classes at the junior and senior high schools of the State of Oklahoma.

1. The most frequently used source of health instruction in both the junior and senior high school was "textbooks on health" and the least used was "journals".
2. On the average, all the junior and senior high schools used four or more of the instructional techniques in Table 23.
3. For both the junior and senior high schools, the smaller the schools, the more equal the distribution of instructional materials reported as used.
4. Greater use of outside speakers was indicated by large schools at both levels.

11. How Often the Instructional Resources Checked in No. 10 are in Use

A. Frequency of Usage of the Listed Instructional Resource According to School Level

This section was designed to compare the frequency in use of health textbooks and instructional materials available for health instruction in the junior high schools with those in the senior high schools. The respondents were asked to indicate the frequency of use of the listed resources as they perceived them.

The data were tabulated and analyzed using chi-square methods (see Table 25) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 25. There were no significant differences in the schools' usage of the various instructional resources as indicated by the critical chi-square value, at the .05 level of significance.

B. Frequency of Usage of the Listed Instructional Resources According to School Sizes

The respondents were asked to indicate the frequency of use of the listed instructional resources as they perceived them. The data were tabulated and analyzed using chi-square method (see Table 26) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as shown in Table 26. There were no significant differences in the various size schools' usage of the various instructional resources as indicated by the critical chi-square value, at the .05 level of significance.

12. How the Current Textbooks and Instructional Materials are Rated in Terms of Adequacy for an Effective Health Education

A. Adequacy of Current Textbooks and Instructional Materials According to School Level

This section was designed to compare the junior high schools' ratings of current textbooks and instructional materials in terms

TABLE 25

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF FREQUENCY IN USE OF INSTRUCTIONAL MATERIALS

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Always	12	12.9320	0.0672	24	23.0679	0.0377
Occasionally	22	22.6311	0.0176	41	40.3689	0.0099
Never	3	1.4369	1.7004	1	2.5631	0.9533

Calculated chi-square = 2.79; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 26

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF FREQUENCY OF USE OF INSTRUCTIONAL MATERIALS

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Always	2	1.7476	0.0365	3	4.8932	0.7325	31	29.3592	.0917
Occasionally	3	3.0583	0.0011	11	8.5631	0.6935	49	51.3786	.1101
Never	0	0.1942	0.1942	0	0.5437	0.5437	4	3.2621	.1669

Calculated chi-square - 2.57; the critical chi-square value - 9.49 with 4 degrees of freedom;[131] level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

of adequacy with those of the senior high schools'. The respondents were asked to rate the adequacy of the current textbooks and instructional materials as they perceived them.

The data were tabulated and analyzed using chi-square method (see Table 27) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 27. There were no significant differences in the schools' ratings as indicated by the critical chi-square value, at the .05 level of significance.

B. Adequacy of Current Textbooks and Instructional Materials According to School Sizes

The respondents were asked to rate the adequacy of the current textbooks and instructional materials as they perceived them. The data was tabulated and analyzed using chi-square method (see Table 28) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as shown in Table 28. There were no significant differences in the various school sizes' ratings of textbooks and instructional materials in terms of adequacy as indicated by the critical chi-square value, at the .05 level of significance.

V. Physical Facilities and Equipment

13. Instructional Equipment Available for Health Education in Schools

This section was designed to determine the availability of instructional equipment for health instruction of students in the junior and senior high schools of the three sizes.

TABLE 27

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF TEXTBOOKS AND INSTRUCTIONAL MATERIALS ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	22	22.9903	0.0427	42	41.0097	.0239
Undecided	6	6.8252	0.0998	13	12.1748	.0559
Inadequate	9	7.1845	0.4588	11	12.8155	.2572

Calculated chi-square = .94; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 28

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF TEXTBOOKS AND INSTRUCTIONAL MATERIALS ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	3	3.1068	0.0037	9	8.6990	0.0104	52	52.1942	.0007
Undecided	0	0.9223	0.9223	4	2.5825	0.7780	15	15.4951	.0158
Inadequate	2	0.9709	1.0909	1	2.7184	1.0863	17	16.3107	.0291

Calculated chi-square - 3.94; the critical chi-square value - 9.49 with 4 degrees of freedom;[131] level of significance - .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row Publishers, 1974, p. 307.

A. Junior High Schools by Sizes

Table 29 reveals that the most frequently available instructional equipment in the responding schools in descending order of magnitude were: film projector (16.90 percent); slide projector (15.97 percent); tape recorder/player (15.50 percent); and filmstrips projector (15.02 percent). Other instructional equipment identified included overhead projector (14.55 percent); bulletin boards (14.09 percent); and television (7.51 percent).

Generally, it appears from the table that the most frequently reported available instructional equipment in the schools is the film projector, while the least available of the listed equipment was the television.

The pattern of availability in junior high schools of all sizes was similar in terms of scope of materials and distribution. Greater availability of the following equipment was reported as schools became smaller: tape recorder, overhead projector, film projector, slide projector and filmstrip projector. Greater availability of the television and other equipment was reported as schools became larger.

B. Senior High Schools by Sizes

Table 30 indicates that the responding schools reported the availability of film projector and filmstrip projector (17.07 percent each) most often for use in health education classes. Of almost equal availability in the responding schools were the overhead projector (16.53 percent) and tape recorder/player (15.27 percent).

Other instructional equipment available in the responding schools in descending order were the slide projector (14.40 percent), bulletin board (9.60 percent) and the television (7.46 percent). Other instructional equipment mentioned by the respondents were the opaque projector, video recorder and cardiopulmonary resuscitation (CPR) dummy.

Generally, it appears from the table that the instructional equipment most available to the large, medium and small size senior high schools were the film projector and the filmstrip projector, while the least frequently available was the television.

The pattern of availability in the senior high schools of all sizes was roughly similar in terms of scope of materials and distribution. Senior high schools reported the following equipment less available as schools increased in size: tape recorder/player, overhead projector, film projector, slide projector and filmstrip projector.

C. Comparative Data for Junior and Senior High Schools

Data revealed that all the instructional equipment listed in Table 29 except the television were available for health education in both the junior and senior high schools in the State of Oklahoma. The film projector and slide projector were the two most frequently available instructional equipment types in the junior high schools while the film projector and filmstrips projector were the two equally ranked instructional equipment types available in health education classes at the senior high schools.

TABLE 29

USE OF INSTRUCTIONAL EQUIPMENT AVAILABLE FOR HEALTH EDUCATION
Junior High School

Instructional Equipment Available	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Tape Recorder/ Player	1 (12.5%)	.47	8 (15%)	3.76	24 (16%)	11.27	33	15.50
Television	1 (12.5%)	.47	6 (12%)	2.82	9 (6%)	4.22	16	7.51
Bulletin Board	1 (12.5%)	.47	8 (15%)	3.76	21 (14%)	9.86	30	14.09
Overhead Projector	1 (12.5%)	.47	7 (13%)	3.28	23 (15%)	10.80	31	14.55
Film Projector	1 (12.5%)	.47	8 (15%)	3.76	27 (18%)	12.67	36	16.90
Slide Projector	1 (12.5%)	.47	8 (15%)	3.76	25 (16%)	11.74	34	15.97
Filmstrips Projector	1 (12.5%)	.47	7 (13%)	3.28	24 (16%)	11.27	32	15.02
Other	1 (12.5%)	.47	0 (0%)	.00	0 (0%)	.00	0	0.47
TOTAL	8 (100%)	3.76	52 (98%)**	24.42	153 (101%)**	71.83	213	100.01**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

TABLE 30

USE OF INSTRUCTIONAL EQUIPMENT AVAILABLE FOR HEALTH EDUCATION
Senior High School

Instructional Equipment Available	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Tape Recorder/ Player	4 (15%)	1.07	6 (15%)	1.60	51 (17%)	13.60	61	15.27
Television	2 (8%)	.53	4 (10%)	1.07	22 (7%)	5.86	28	7.46
Bulletin Board	3 (11%)	.80	6 (15%)	1.60	27 (9%)	7.20	36	9.60
Overhead Projector	4 (15%)	1.07	6 (15%)	1.60	52 (17%)	13.86	62	16.53
Film Projector	4 (15%)	1.07	6 (15%)	1.60	54 (17%)	14.40	64	17.07
Slide Projector	3 (11%)	.80	6 (15%)	1.60	45 (15%)	12.00	54	14.40
Filmstrips Projector	4 (15%)	1.07	6 (15%)	1.60	54 (17%)	14.40	64	17.07
Other	2 (8%)	.53	0 (0%)	.00	4 (1%)	1.07	6	1.60
TOTAL	26 (98%)**	6.94	40 (100%)	10.67	309 (100%)	82.39	375	100.00

*Percentage of the total.

**Total does not equal 100 percent because of rounding off error factor.

D. Summary

The following general statements can be made about the instructional equipment available for health education in both the junior and senior high schools:

1. All the instructional equipment listed in Table 29 were used in one form or another in both the junior and senior high schools.
2. The television was the least available instructional equipment type in the junior and senior high schools; and the smaller the schools, the smaller the number of television available.

14. Areas Where the Health Education Classes are Taught

This section was designed to identify places where health education classes met for instruction in both the junior and senior high schools of various sizes.

A. Junior High Schools by Sizes

Table 31 indicates a high percentage of the responses (61.53 percent) of the sample schools held their health education classes in regular academic classrooms. This pattern held true for junior high schools of all sizes. Only 21.15 percent of the response indicated that schools conducted the health class in classrooms located in the gymnasium; and 13.46 percent of them identified the dressing or locker room located in the gymnasium as their places of meeting for health instruction. Places such as the auditorium, the Nurse's clinic and

TABLE 31

PLACES WHERE HEALTH EDUCATION CLASSES ARE TAUGHT
Junior High School

Places Where Classes Meet	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Dressing/Locker Room Located in The Gymnasium	0 (0%)	.00	4 (27%)	7.69	3 (8%)	5.77	7	13.46
Classroom Located in the Gymnasium	0 (0%)	.00	4 (27%)	7.69	7 (20%)	13.46	11	21.15
Regular Academic Classroom	1 (50%)	1.92	7 (46%)	13.46	24 (69%)	46.15	32	61.53
Other	1 (50%)	1.92	0 (0%)	.00	1 (3%)	1.92	2	3.84
TOTAL	2 (100%)	3.84	15 (100%)	28.84	35 (100%)	67.30	52	99.98**

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

science laboratory rooms were mentioned as places where health instruction was given by a few of the schools.

Percentagewise, three times as many medium sized junior high schools as small junior high schools reported offering health instruction in a dressing/locker room located in the gymnasium. Generally, it appears that the most likely place to provide health instruction in the junior high schools was the regular academic classroom and the least likely place was the dressing or locker room located in the gymnasium.

B. Senior High Schools by Sizes

Table 32 shows that a bulk of the responses (69.77 percent) indicated schools held their health education classes in the regular academic classrooms. This pattern is descriptive of senior high schools of all sizes. The table also reveals that the same proportion of the responding schools (12.79 percent) held their health education classes in the dressing or locker room located in the gymnasium as in the classrooms located in the gymnasium. Other areas mentioned by the responding schools where health education classes were held included the cafeteria, auditorium and home economics room.

Interestingly, the smaller high schools reported using the gymnasium at approximately 1/4 the rate of larger and middle size senior high schools. The small senior high schools reported offering health instruction in the dressing/locker room at a rate 4 percent greater than that for instruction in

TABLE 32

PLACES WHERE HEALTH EDUCATION CLASSES ARE TAUGHT
Senior High School

Places Where Classes Meet	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Dressing/Locker Room Located in the Gymnasium	0 (0%)	.00	1 (12.5%)	1.16	10 (14%)	11.63	11	12.79
Classroom Located in the Gymnasium	2 (33%)	2.32	3 (37.5%)	3.49	6 (8%)	6.98	11	12.79
Regular Academic Classroom	3 (50%)	3.49	4 (50.0%)	4.65	53 (74%)	61.63	60	69.77
Other	1 (17%)	1.16	0 (0%)	.00	3 (4%)	3.49	4	4.65
TOTAL	6 (100%)	6.97	8 (100%)	9.30	72 (100%)	83.73	86	100.00

*Percentage of the total.

the gym classroom, but the medium size high school reported offering classes in the classroom in the gym 3 times the rate of that offered in the dressing/locker room in the gymnasium.

It appears from the table that the general practice in the senior high schools was to hold health education classes in the regular academic classrooms.

C. Comparative Data for Junior and Senior High Schools

The data revealed that the most frequently reported place to hold health education classes in both the junior and senior high schools was the regular academic classroom. While the junior high schools reported the classroom located in the gymnasium and the dressing/locker room located in the gymnasium as the second and third places, respectively, to conduct health instruction, equal proportions of senior high schools identified the two places as the second important sites for providing health instruction.

D. Summary

The following statements can be drawn about the places where health education was being provided in both the junior and senior high schools in Oklahoma:

1. The larger percentage of the junior and senior high schools reported teaching health education in the regular academic classrooms.
2. The larger the school, the less the practice of providing health instruction in the dressing or locker room located in the gymnasium.

3. Both the junior and senior high schools used the three places listed in Table 31 for health instruction.
4. While the junior high schools used other places such as auditorium, the Nurse's clinic and science laboratory rooms for health instruction, the senior high schools used the cafeteria, auditorium and home economics room for the same purpose.

15. How the Current Facilities and Equipment Available in Schools are Rated in Terms of Adequacy for an Effective Health Education

A. Ratings in Terms of Adequacy of the Facilities and Equipment Available According to School Levels

This section was designed to compare the junior high schools' ratings of the current facilities and equipment in terms of adequacy for use in health education classes with those in the senior high schools. The respondents were asked to rate the adequacy of the current facilities and equipment in use in their schools as they perceived them.

The data were tabulated and analyzed using the chi-square method (see Table 33) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 33. There were no significant differences in the schools' ratings as indicated by the critical chi-square value at the .05 level of significance.

TABLE 33

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF FACILITIES AND EQUIPMENT ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	23	26.9417	0.5767	52	48.0582	0.3233
Undecided	5	3.9515	0.2782	6	7.0485	0.1560
Inadequate	9	6.1068	1.3707	8	10.8932	0.7684

Calculated chi-square = 3.47; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] level of significance = .05.

TABLE 34

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF FACILITIES AND EQUIPMENT ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	3	3.6408	0.1128	12	10.1942	0.3199	60	61.1650	.0222
Undecided	0	0.5340	0.5340	1	1.4951	0.1640	10	8.9709	.1181
Inadequate	2	0.8252	1.6723	1	2.3107	0.7435	14	13.8641	.0013

Calculated chi-square = 3.69; the critical chi-square value - 9.49 with 4 degrees of freedom;[131] level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

B. Ratings in Terms of Adequacy of the Facilities and Equipment Available According to School Sizes

The respondents were asked to rate the adequacy of the current facilities and equipment in use in their schools as they perceived them. The data were tabulated and analyzed using chi-square method (see Table 34) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as shown in Table 34. There were no significant differences in the various size schools' ratings of facilities and equipment available in terms of adequacy for an effective health education as indicated by the critical chi-square value at the .05 level of significance.

VI. Methods of Evaluation

16. Techniques Used in Evaluating Health Education in Schools

This section was designed to determine the evaluation techniques adopted for health education in both the junior and senior high schools.

A. Junior High Schools by Sizes

Table 35 indicates that the two most frequently used techniques of evaluating health education identified by the responding junior high schools were observations (40.35 percent), and tests and health questionnaires (31.58 percent). The other techniques of evaluating health education checked, in descending order of frequency, were interviews and discussions (15.78 percent), questionnaires to parents, students,

TABLE 35

TECHNIQUES USED IN EVALUATING HEALTH EDUCATION
Junior High School

Techniques Used in the Evaluation	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Questionnaires to Parents, Students, or Other Interested Personnel	0 (0%)	.00	1 (8%)	1.75	3 (7%)	5.26	4	7.01
Evaluation from Specialists	0 (0%)	.00	0 (0%)	.00	3 (7%)	5.26	3	5.26
Observations	I (50%)	1.75	7 (58%)	12.28	15 (35%)	26.32	23	40.35
Tests and Health Questionnaires	0 (0%)	.00	3 (25%)	5.26	15 (35%)	26.32	18	31.58
Interviews and Discussions	1 (50%)	1.75	1 (8%)	1.75	7 (16%)	12.28	9	15.78
Other	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	2 (100%)	3.50	12 (99%)**	21.04	43 (100%)	75.44	57	99.98**

*Percentage of total.
**Total does not equal 100 percent because of the rounding off error factor.

or other interested personnel (7.01 percent) and evaluation from specialists (5.26 percent).

Tests and health questionnaires were used less frequently as schools became larger, ranging from 10-35 percent less. As schools decreased in size, they reported a greater use of evaluation by specialists and in the use of tests and health questionnaires. Small schools reported the use of interviews and discussion at twice the rate of medium schools but 1/3 the rate of large junior high schools.

Generally, it appears from the table that observations and evaluation from specialists were the most and least frequently used techniques, respectively, to evaluate health education in all the sizes of junior high schools.

B. Senior High Schools by Sizes

Table 36 indicates that the responding schools considered observations (44.45 percent) as the most dominant technique of evaluating health education in their respective high schools. The second category of evaluating techniques identified by the schools in ascending order were interviews and discussions (17.59 percent) and tests and health questionnaires (28.70 percent).

The table also reveals that the least frequently used techniques, in descending order, were evaluation from specialists (6.49 percent) and questionnaires to parents, students, or other interested personnel (2.78 percent).

Interestingly, the use of specialists' evaluations increased with school size. Small schools used observations

TABLE 36

TECHNIQUES USED IN EVALUATING HEALTH EDUCATION
Senior High School

Techniquest Used in the Evaluation	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Questionnaires to Parents, Students, or Other Interested Personnel	0 (0%)	.00	1 (11%)	.93	2 (2%)	1.85	3	2.78
Evaluation from Specialists	1 (12%)	.93	1 (11%)	.93	5 (5%)	4.63	7	6.49
Observations	3 (38%)	2.78	3 (33%)	2.78	42 (46%)	38.89	48	44.45
Tests and Health Questionnaires	2 (25%)	1.85	1 (11%)	.93	28 (31%)	25.92	31	28.70
Interviews and Discussions	2 (25%)	1.85	3 (33%)	2.78	14 (15%)	12.96	19	17.59
Other	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	8 (100%)	7.41	9 (99%)**	8.35	91 (99%)**	84.25	108	100.01**

*Percentage of total.
**Total does not equal 100 percent because of the rounding off error factor.

more frequently than the other school sizes; medium schools used interviews and discussion more frequently than either small or large schools.

Generally, it appears from the table that regardless of school size, the most frequently used technique of evaluating health education in the senior high schools was by observations, and the least frequently used was questionnaires to parents, students, or other interested personnel.

C. Comparative Data for Junior and Senior High Schools

Data revealed that the three common and most frequently used techniques of evaluating health education, in descending order of importance, in both the junior and senior high schools were: observations, tests and health questionnaires, and interviews and discussions.

The junior high schools differed from the senior high schools only in the method of evaluating health education used least. While the junior high school used the evaluation from specialists least, the senior high schools seldom used questionnaires to parents, students, or other interested personnel technique.

D. Summary

The following general statements can be made about the techniques used in the junior and senior high schools for evaluating health education.

1. All the techniques of evaluating health instruction listed in Table 36 were used in both the junior and senior high schools.

2. The top ranked technique used at the two school levels was evaluation by observations.
3. Questionnaires to parents, students, or other interested personnel and evaluation from specialists were the least frequently used techniques for evaluating health education programs.

17. How Often is Health Education Evaluated in the School

A. Frequency of Health Education Evaluation According to School Level

This section was designed to compare the frequencies of evaluating health education in the junior high schools with those of the senior high schools. The respondents were asked to rate the frequencies at which health education was evaluated in their schools as they perceived it.

The data was tabulated and analyzed using chi-square method (see Table 37) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusion drawn is a result of Table 37. There was no significant difference in the schools' ratings as indicated by the critical chi-square value at the .05 level of significance.

B. Frequency of Health Education Evaluation According to School Sizes

The respondents were asked to rate the frequencies at which health education was evaluated in their schools as they perceived it. The data was tabulated and analyzed using chi-

TABLE 37

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF FREQUENCY OF EVALUATING HEALTH EDUCATION

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Never	5	7.1845	0.6642	15	12.8155	0.3724
Every 2-5 Years	7	5.7476	0.2729	9	10.2524	0.1530
On A Continuous Basis	25	24.0679	0.0361	42	42.9320	0.0202

Calculated chi-square = 1.52; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] Level of significance = .05.

TABLE 38

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF FREQUENCY OF EVALUATING HEALTH EDUCATION

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Never	1	0.9709	0.0009	0	2.7184	2.7184	19	16.3107	.4434
Every 2-5 Years	2	0.7767	1.9267	1	2.1748	0.6346	13	13.0485	.0002
On A Continuous Basis	2	3.2524	0.4823	13	9.1068	1.6644	52	54.6408	.1276

Calculated chi-square = 8.00; the critical chi-square value - 9.49 with 4 degrees of freedom;[131] Level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

square method (see Table 38) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as indicated in Table 38. There were no significant differences in the frequencies at which the various school sizes evaluated health education as shown by the critical chi-square at the .05 level of significance.

18. How the Current Methods of Evaluation are Rated in Terms of Adequacy for an Effective Health Education

A. Ratings in Terms of Adequacy of the Methods of Evaluating Health Education According to School Level

This section was designed to compare the junior high schools' ratings of evaluation techniques for health education with those of the senior high schools. The respondents were asked to rate their schools in terms of adequacy for evaluation techniques used in health education.

The data were tabulated and analyzed using chi-square method (see Table 39) as a convenience mechanism rather than a hypothesis testing mechanism. The conclusions drawn are a result of Table 39. There was no significant difference in the schools' ratings as indicated by the critical chi-square value, at the .05 level of significance.

B. Ratings in Terms of Adequacy of the Methods of Evaluating Health Education According to School Sizes

The respondents were asked to rate their schools in terms of adequacy for evaluation techniques used in health education.

TABLE 39

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF METHODS OF EVALUATION ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	21	20.4757	0.0134	36	36.5243	0.0075
Undecided	6	7.1845	0.1953	14	12.8155	0.1095
Inadequate	10	9.3398	0.0467	16	16.6602	0.0262

Calculated chi-square = .40; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] Level of significance = .05.

TABLE 40

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF METHODS OF EVALUATION ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	3	2.7670	0.0196	9	7.7476	0.2025	45	46.4854	.0475
Undecided	0	0.9709	0.9709	3	2.7184	0.0292	17	16.3107	.0291
Inadequate	2	1.2621	0.4314	2	3.5340	0.6658	22	21.2039	.0299

Calculated chi-square = 2.43; the critical chi-square value = 9.49 with 4 degrees of freedom;[131] Level of significance = .05.

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[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

The data were tabulated and analyzed using chi-square method (see Table 40) as a convenience mechanism rather than a hypothesis testing mechanism.

The conclusions drawn are as indicated in Table 40. There were no significant differences in the various school sizes' ratings of method of evaluation in terms of frequency for an effective health education as shown by the critical chi-square value, at the .05 level of significance.

VII. Instructional Responsibilities

19. Educational Level of Instructional Staff in Health Education Program

This section was designed to determine the educational levels of the teachers of health instruction in the junior and senior high schools of all sizes.

A. Junior High Schools by Sizes

Table 41 reveals that generally the educational level of teachers of health education in the responding schools was the bachelor's degree. This educational level represented 63.42 percent of the response of junior high schools of all sizes.

The table also indicates that the master's degree (34.14 percent) was the next most common educational qualification of teachers responsible for teaching health. Only one teacher of health education was reported to have completed a post-master's program.

TABLE 41

EDUCATIONAL LEVEL OF THE INSTRUCTIONAL STAFF
IN HEALTH EDUCATION PROGRAMS
Junior High School

Educational Level of Teachers	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Less than a Bachelor's Degree (Teacher's Aide)	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
Bachelor's Degree	1 (50%)	2.44	4 (36%)	9.76	21 (75%)	51.22	26	63.42
Master's Degree	1 (50%)	2.44	6 (55%)	14.63	7 (25%)	17.07	14	34.14
Completion of a Post-Master's Program	0 (0%)	.00	1 (9%)	2.44	0 (0%)	.00	1	2.44
Doctor's Degree	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	2 (100%)	4.88	11 (100%)	26.83	28 (100%)	68.29	41	100.00

*Percentage of the total.

None of the school sizes reported either an educational level of less than a bachelor's degree or the high educational level of doctorate degree for persons teaching health in the schools.

Generally, it appears from the table that the educational level of the teachers in charge of health instruction in the junior high schools of all sizes were bachelor's and master's degrees.

The smaller schools reported the greatest percentage of bachelor's degree educational-level persons teaching health education, but the smallest percentage frequency of master's degrees. Medium schools reported a slightly higher percentage frequency of master's degree level health education instructors than the other size schools.

B. Senior High Schools by Sizes

Table 42 indicates that bachelor's degree (64.87 percent) was the most prevalent educational level of the teachers of health education in all the responding school sizes. The table also reveals that the next frequently mentioned educational level of all the responding school sizes was master's degree (31.08 percent). Only in the medium and small size schools were health teachers with the completion of post-master's programs found.

The table shows no indication of teachers with educational level of less than a bachelor's degree or as high a level as a doctorate degree providing health instruction.

TABLE 42

EDUCATIONAL LEVEL OF THE INSTRUCTIONAL STAFF
IN HEALTH EDUCATION PROGRAMS
Senior High School

Educational Level of Teachers	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Less than a Bachelor's Degree (Teacher's Aide)	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
Bachelor's Degree	4 (80%)	5.41	2 (33%)	2.70	42 (67%)	56.76	48	64.87
Master's Degree	1 (20%)	1.35	3 (50%)	4.05	19 (30%)	25.68	23	31.08
Completion of a Post-Master's Program	0 (0%)	.00	1 (17%)	1.35	2 (1%)	2.70	3	4.05
Doctor's Degree	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	5 (100%)	6.76	6 (100%)	8.10	63 (98)**	85.14	74	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

Generally, it appears that there is a tendency for health education teachers in the senior high schools of various sizes to hold bachelor's or master's degrees.

The smallest frequency percentage of bachelor's degrees and the greatest percentage of master's degrees was found among health education instructors in the medium schools. The greatest frequency percentage of bachelor degree-trained teachers and the smallest number of master-trained teachers were found in the large senior high schools.

C. Comparative Data for Junior and Senior High Schools

Data revealed that the educational level possessed by the largest proportion of persons responsible for health instruction in both the junior and senior high schools was the bachelor's degree. The second common educational level possessed by health education teachers in both school levels was the master's degree. Few health education teachers in the two school levels had completed post-master's programs. No health education teacher in either the junior or senior high schools possessed a lower educational level than a bachelor's degree or a higher educational level than a completion of post-master's program.

It appeared that a greater frequency percentage of health education instructors in the senior high schools had bachelor's degrees than in the junior high schools.

D. Summary

The following general statements can be made about the educational levels of persons responsible for disseminating

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It appeared that a greater frequency percentage of health education instructors in the senior high schools had bachelor's degrees than in the junior high schools.

D. Summary

The following general statements can be made about the educational levels of persons responsible for disseminating

health education to the students in both the junior and senior high schools:

1. The three educational levels of teachers responsible for health instruction in both the junior and senior high schools were bachelor's degree, master's degree and completion of a post-master's program.
2. A bulk of health education teachers in the two school levels held bachelor's and master's degrees.
3. No health education teacher was reported to hold less than a bachelor's degree or as high an educational level as a doctorate degree in the two school systems.

19. Responsibilities Other than Teaching Health Education

This section was designed to determine other responsibilities assigned to health education teachers apart from from teaching health in both the junior and senior high schools of all sizes.

A. Junior High Schools by Sizes

Table 43 reveals that when junior high health education teachers were assigned other responsibilities, they were equally likely to be assigned to coaching (32.53 percent), teaching physical education (32.53 percent) and teaching other academic disciplines. They were less likely to be coaching or teaching other academic subjects in the medium schools than the smaller or larger schools; they were more likely to be teaching physical education in the schools of middle size.

TABLE 43

RESPONSIBILITIES OTHER THAN TEACHING HEALTH EDUCATION
Junior High School

Responsibilities Other than Health Education	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Coaching	1 (33%)	1.20	4 (29%)	4.82	22 (33%)	26.51	27	32.53
Instructor in Physical Education	1 (33%)	1.20	6 (42%)	7.23	20 (30%)	24.10	27	32.53
Teaching in Other Academic Disciplines	1 (33%)	1.20	4 (29%)	4.82	24 (37%)	28.92	29	34.94
Other	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	3 (99%)**	3.60	14 (100%)	16.87	66 (100%)	79.53	83	100.00

*Percentage of the total.
**Total does not equal 100 percent because of the rounding off error factor.

In the larger school, they were equally likely to coach, teach physical education or other academic areas.

Generally, it appears from the table that the common practice in the responding junior high schools was to assign health education teachers to teaching in other academic disciplines, physical education and coaching.

B. Senior High Schools by Sizes

At the senior high school level, when health instructors were given other responsibilities, they were likely to be coaching duties in schools of all sizes. In the smaller schools, teaching in other academic areas was more probable than instructing in physical education, which was the case for large and medium schools.

C. Comparative Data for Junior and Senior High Schools

Data from Tables 43 and 44 indicate that when health education instructors were assigned extra duties, they were likely to be assigned as coaches at the senior high school level, but as instructors in physical education or other academic disciplines at the junior high school level. The larger the senior high school, the more likely the health instructor was to be assigned coaching duties. In the senior high school, the health instructor was likely to be teaching physical education or another academic subject in that order, if he/she was not assigned coaching duties. The medium junior high school health instructor was more likely teaching physical education as an additional responsibility than another discipline in both the junior and senior high schools. The reverse

TABLE 44

RESPONSIBILITIES OTHER THAN TEACHING HEALTH EDUCATION
Senior High School

Responsibilities Other than Health Education	Large		Medium		Small		Grand Total	
	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage*	Frequency Reported	Percentage
Coaching	4 (44%)	2.92	4 (40%)	2.92	45 (38%)	32.85	53	38.69
Instructor in Physical Education	3 (33%)	2.19	4 (40%)	2.92	30 (26%)	21.90	37	27.01
Teaching in Other Academic Disciplines	2 (23%)	1.46	2 (20%)	1.46	43 (36%)	31.38	47	34.30
Other	0 (0%)	.00	0 (0%)	.00	0 (0%)	.00	0	.00
TOTAL	9 (100%)	6.57	10 (100%)	7.30	118 (100%)	86.13	137	100.00

*Percentage of the total.

was true in both the small junior high school and the small senior high school.

D. Summary

The following statements can be deduced about other responsibilities assigned health education teachers in both the junior and senior high schools:

1. A bulk of health education teachers were assigned the responsibilities of teaching in other academic disciplines and of coaching in the junior and senior high schools, respectively.
2. Generally, health education teachers in both the junior and senior high schools were given the responsibilities of coaching and teaching in physical education and other academic disciplines in their respective schools.
3. The other responsibilities of the health education teachers in the senior high schools primarily included coaching, but primarily included teaching other subjects and physical education at the junior high school level.

20. How the Current Division of Responsibilities are Rated in Terms of Adequacy for an Effective Health Education

A. Ratings in Terms of Adequacy of the Division of Responsibilities According to School Levels

This section was designed to compare the junior high schools' ratings of the adequacy of division of responsibilities

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TABLE 45

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL LEVELS RELATIVE TO PERCEPTIONS OF DIVISION OF RESPONSIBILITIES ADEQUACY

	Junior High			Senior High		
	Frequency Reported	X^2	P	Frequency Reported	X^2	P
Adequate	21	22.6311	0.1176	42	40.3689	0.0659
Undecided	6	7.5437	0.3159	15	13.4563	0.1771
Inadequate	10	6.8252	1.4767	9	12.1748	0.8279

Calculated chi-square = 2.98; the critical chi-square value = 5.99 with 2 degrees of freedom;[131] Level of significance = .05.

TABLE 46

CHI-SQUARE TABLE FOR COMPARISON OF SCHOOL SIZES RELATIVE TO PERCEPTIONS OF DIVISION OF RESPONSIBILITIES ADEQUACY

	Large			Medium			Small		
	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P	Freq. Rptd.	X^2	P
Adequate	2	3.0583	0.3662	11	8.5631	0.6935	50	51.3786	.0370
Undecided	0	1.0194	1.0194	2	2.8544	0.2557	19	17.1262	.2050
Inadequate	3	0.9223	4.6802	1	2.5825	0.9697	15	15.4951	.0158

Calculated chi-square = 8.24; the critical chi-square value = 9.49 with 4 degrees of freedom;[131] Level of significance = .05.

[131] N. M. Downie and R. W. Heath. Basic Statistical Methods, Fourth Edition. New York: Harper and Row, Publishers, 1974, p. 307.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary

This chapter is designed to present the summary of the study, findings, and draw conclusions based upon the findings of the study. It is also the purpose of this chapter to make recommendations for the improvement of health education programs in the public schools of the State of Oklahoma.

The purpose of this study was to survey the status of health instruction in selected secondary schools of the State of Oklahoma. More specifically, the purpose of the study was to examine the following aspects of health instruction: organization, curriculum, instructional materials, facilities and equipment, evaluation, and instructional responsibilities of teachers.

The procedure used in this study was to modify a questionnaire developed (validated by health education experts) and used for a similar study in Northeast Texas by Iles after permission to use the instrument was granted by him (see Appendix C). The questionnaire was administered to a stratified-random sample of 44 junior high schools and 74 senior high schools located in the Northwest, Northeast, Southwest,

Southeast, and Metropolitan areas of the State of Oklahoma. The metropolitan areas were represented by Oklahoma and Tulsa counties.

The list of schools from where the sample was drawn and their addresses were obtained from the Oklahoma Public School Directory for the 1978/79 school year, prepared by the State Department of Education in Oklahoma. Shortly before the sample was drawn, the enrollments of each of the junior and senior high schools for the 1978/79 academic session were copied by hand from the computer printout at the Data Section of the State Department.

The availability of the enrollments fostered the division of the junior and senior high schools into three categories: large, medium and small. The large schools were schools with average daily membership of 1,000 or more. The medium schools were those with average daily memberships of 450 to 999, and the small schools were schools with average daily membership of 449 or less.

The questionnaire used contained twenty questions divided into the following areas: (I) General Data; (II) Organization for Health Instruction; (III) Nature of Offerings; (IV) Textbooks and Instructional Materials; (V) Physical Facilities and Equipment; (VI) Methods of Evaluation; and (VII) Instructional Staff Characteristics and Responsibilities. The questionnaire was mailed to the principals of 15 percent or a total of 118 of the junior and senior high

schools sampled. Of the questionnaires sent out, a total of 103 or 87.4 percent were returned.

Responses were tabulated and data analyzed using non-parametric chi-square and percentage methods. The results obtained as presented in the tables in Chapter IV provided a basis for recommendations for improvement of health education programs in Oklahoma public schools.

Findings

The tabulation and analysis of the data collected in this study revealed the following significant findings instrumental according to the aspects listed in the first paragraph of this chapter:

Organizations

1. The medium and small junior high schools required primarily an average of 1/2 unit (or the equivalent of one semester's work) of health instruction by the end of grades 7-8.
2. The large junior high schools required no units of health instruction by the end of grades 7-9.
3. A majority of the senior high schools of all sizes required a completion of an average of 3/10 unit (or an equivalent of 5 weeks' work) of health instruction by the end of grade 10.
4. Only the small sized senior high schools required a completion of an average of 1/5 unit (or an

equivalent of 4 weeks' work) of health instruction by the end of grade 11 or 12.

5. A sizeable percentage of the reported frequencies of junior high schools (49.99 percent) and senior high schools (29.82 percent) indicated that health instruction was offered in the physical education area.
6. Few junior high schools (12.07 percent of the reported frequencies) and senior high schools (22.81 percent of the reported frequencies) offered health education as a separate course.

Curriculum

1. More than one-half of the junior high schools (52.27 percent) and the senior high schools (62.02 percent) responses indicated they developed their health education curricula based on the needs of students and community. Other popular methods of developing the curriculum used by both school systems were by adopted textbooks and by guides developed by curriculum director, supervisor or committee.
2. None of the junior and senior high schools developed their health education curriculum with the aid of a guide prepared by the nationally recognized specialists.
3. The greatest number of junior high school responses (15.39 percent) and senior high school responses

(14.78 percent) revealed they offered courses in "Use and Abuse of Tobacco, Alcohol and Drugs." Other course contents emphasized by both school levels were Growth and Development, Nutrition, and Health and Fitness for Daily living. Chronic and Degenerative Disease content courses were the least emphasized in both the junior and senior high schools of the State of Oklahoma. Other courses not frequently offered were Consumer Health, Community Health and Sex Education.

4. The highest response percentage of the junior high schools (18.88 percent) and senior high schools (22.85 percent) revealed the use of the lecture method in health education classes. Other top methods used by the two school systems were: use of textbooks, demonstrations, discussion (panel or teacher initiated), and oral and written reports.
5. The least used method in the junior high schools (2.22 percent) was role-playing, while the least used in the senior high schools (.36 percent) was dramatization.

Instructional Materials

1. A great majority of the responses of the junior high schools (25.22 percent) and senior high schools (23.10 percent) showed they used textbooks on health in health education classes. The two other instructional materials frequently used in each of junior

and senior high schools were outside speakers and magazines.

2. A greater proportion of the senior high school's (15.15 percent) than the junior high schools' responses (7.83 percent) indicated they used articles. Journals were the least used instructional materials in both the junior and senior high schools.

Facilities and Equipment

1. The leading instructional equipment in the junior high schools (16.90 percent of the responses) was the film projector and those available in the senior high schools (17.07 percent of the responses). The instructional equipment least available for use in both the junior and senior high schools was the television.
2. Most responses by the junior high schools (61.53 percent) and senior high schools (69.77 percent) showed they held their health education classes in regular academic classrooms. Few junior and senior high schools held their health education classes in the dressing or locker room located in the gymnasium and classroom located in the gymnasium.

Evaluation

1. A great majority of responses of the junior high schools (40.35 percent) and senior high schools (44.45 percent) revealed that they used observations

technique in evaluating health education. Tests and health questionnaires, and interviews and discussions were the other two commonly used techniques of evaluation used in both junior and senior high schools. Evaluation from specialists, and questionnaires to parents, students or other interested personnel were the least used methods of evaluation in the junior or senior high schools, respectively.

Instructional Responsibilities

1. The greatest proportion of health education teachers in the junior high schools (63.42 percent of the reported responses) and those in the senior high schools (64.87 percent of the reported responses) were bachelor's degree holders. Another common educational qualification possessed by the health teachers in the two school systems was the master's degree. No health education teachers in the two school systems held lower than a bachelor's degree or an educational level of more than the completion of a post-master's program.
2. A bulk of health education teachers in the junior high schools (34.94 percent of the reported frequencies) and those in the senior high schools (38.69 percent of the reported frequencies) were given additional responsibilities of teaching in other academic disciplines and coaching, respectively. Instruction in physical education area was another responsibility

assigned health education teachers in the two school systems.

3. There was no significant difference between the perceptions of persons reporting for the junior and senior high schools on the one hand, and among the various school sizes on the other hand, on how adequately they perceived their organization for health instruction; curricula, instructional techniques, textbooks and instructional materials, facilities and equipment available, current methods of evaluation, and division of responsibilities for effective health education.

Profiles of the Typical Junior High School in Oklahoma

Based on the findings of this study, this profile of the typical junior high school in Oklahoma relative to health instruction is offered. The typical junior high school required primarily an average of one-half unit (or an equivalent of one semester work) of health instruction by the end of grades 7-9. It was a place where health instruction was offered mainly in the physical education area; and rarely offered as a separate course. The development of health education curriculum was based on the needs of students and community and rarely determined by nationally recognized specialists.

The typical junior high school offered courses basically in content areas of Use and Abuse of Tobacco, Alcohol and Drugs, and Nutrition. It rarely offered courses in the content area of Chronic and Degenerative Diseases.

The typical junior high school used lecture method in disseminating health instruction to the students and rarely used role-playing methods. It was a place where "textbooks" were the primary instructional material used but "journals" rarely available.

Health education classes were held in the regular academic classrooms in the typical junior high school and the film projector was most often used to aid instruction. It was a place where television was rarely used for instruction.

Evaluation of health education by "observations" was the most frequently used technique in the typical junior high school and evaluation from specialists the least used method.

The majority of the health education teachers in the typical junior high school in Oklahoma held bachelor's and master's degrees. A bulk of the health teachers in the typical junior high school were assigned additional responsibilities in other academic disciplines such as biology and home economics.

Profile of the Typical Senior High School in Oklahoma

Based on the results of this study, this profile of the typical senior high school in Oklahoma relative to health instruction is offered. The typical senior high school required the completion of an average of three-tenths unit (or an equivalent of 5 weeks' work) of health instruction by the end of grade 10 and an average of one-fifth unit (or an equivalent of 4 weeks' work) of health instruction by the end of grade 11 or 12.

Health education was offered primarily in the physical education and home economics areas in the typical senior high school. It was a place where health education was rarely offered as a separate course.

The typical senior high school based the development of its health education curriculum solely on the needs of the students and community. It was a place where health education curriculum was rarely determined by nationally recognized specialists.

The typical senior high school emphasized the course content areas of Use and Abuse of Tobacco, Alcohol and Drugs, and Nutrition. It was a place where Community Health, Consumer Health, and Chronic and Degenerative Diseases were rarely taught.

The lecture method and health textbooks were mainly utilized in regurgitating health instruction to the students in the typical senior high school. Role-playing and dramatization methods were rarely used.

The instructional equipment most often used in the typical senior high school was the film projector. It was a place where journals were rarely used.

Health education classes were held in regular academic classrooms in the typical senior high school. Health education classes rarely used the dressing or locker room facilities for instructional purposes in the typical senior high school.

Evaluation of health instruction through "observations" was the dominant technique used in the senior high school. It

was a place where health education was rarely evaluated by specialists.

The two educational levels of the health education teachers in the typical senior high school were bachelor's and master's degrees. It was a place where health education teachers were primarily assigned the responsibilities of coaching and teaching physical education.

Conclusions

The following conclusions were drawn about the status of health instruction in the public schools of Oklahoma:

1. In the State of Oklahoma, the content areas of Consumer Health and Chronic and Degenerative Diseases, Community Health and Sex Education are relatively neglected as an area of study in health education.
2. The secondary schools of the State of Oklahoma vary in the manner in which they provide health education.
3. Secondary schools in the State of Oklahoma do not differ significantly in their perceptions of adequacy regarding important aspects of their health education programs.
4. Health education teachers do not possess degrees beyond the master's degree.
5. The status of health education is similar to the general state of health education nationally.

6. The concept of health taught as a separate course is not widely practiced in the secondary schools of the State of Oklahoma.
7. Teacher-centered teaching methods are dominant in the State of Oklahoma.

Recommendations

Based on the findings and conclusions drawn from this study and review of literature, it is recommended:

1. That health education be offered as a separate course in the secondary schools of Oklahoma;
2. That instructors in health education use a variety of teaching methods. Role-playing and problem-solving techniques of teaching should be emphasized much more in schools;
3. That school authorities endeavor to evaluate health education frequently. Evaluation techniques should include questionnaires to parents, students or other interested personnel and those from specialists;
4. That health education teachers be provided with adequate instructional resources for use in health education classes. Included in the materials to be provided should be journals, posters and articles;
5. That health education instructors be provided with adequate instructional facilities and equipment for use in health education classes. Television and

bulletin boards should accompany those to be provided;

6. That more units of health instruction be required in each of the grade levels of the secondary schools in the State of Oklahoma;
7. That more attention be given to health education content areas such as chronic and degenerative diseases, consumer health, community health, and sex education in the school health education programs;
8. That an additional research be conducted that focuses on the programs in health education in Oklahoma secondary schools. The focus of this research effort might be the large junior high school.

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APPENDIX A

SURVEY QUESTIONNAIRE USED

A SURVEY OF THE STATUS OF HEALTH INSTRUCTION IN OKLAHOMA JUNIOR AND SENIOR HIGH SCHOOLS

SURVEY QUESTIONNAIRE

DIRECTIONS: For each question, please check the answer which best applies to your school. Please mark only one choice for each question unless specified.

I. General Data

1. Title of the respondent completing this questionnaire:

_____Principal of the High School
_____Person with primary responsibility for Health Education instruction

2. _____Grade levels included in school (please fill in)

II. Organization

3. How many course units of health instruction are required to successfully complete the highest level of your school or for high school graduation:

_____7th or 8th; _____9th or 10th; _____11th or 12th or
_____Other (specify)_____

4. In what discipline area is the major responsibility for health education found in your school?

_____Health education as a separate course _____Biology
_____Physical education _____Other_____
_____Home economics

5. How do you rate your school in terms of adequacy for an effective health education?

_____very adequate; _____adequate; _____undecided; _____inadequate;
_____very inadequate

III. Nature of the Curriculum

6. How is the curriculum in health education determined at your school? (May be answered with more than one response.)

_____The curriculum is determined by the adopted textbooks only.
_____A curriculum guide developed by a curriculum director, supervisor, or committee.
_____A curriculum developed by a group of nationally recognized specialists.
_____A curriculum based solely on the needs of the students and community as determined by the teacher or curriculum director.

7. Which of the listed content areas are included in your school health curriculum? (May be answered with more than one response.)

_____Consumer Health _____Prevention of Communicable Diseases
_____Community Health _____Chronic and Degenerative Diseases
_____Growth and Development _____Environmental Health and Safety

7. (continued)

_____Nutrition
_____Sex Education for Family Living
_____Health and Fitness for Daily Living
_____Use and Abuse of Tobacco, Alcohol, and Drugs
_____Other (specify)_____

8. Which methods or techniques of presenting educational materials to students are being used in health education at your school? (May be answered with more than one response.)

_____Lecture method
_____Demonstrations
_____Exhibits
_____Field trips
_____Dramatizations
_____Problem-solving method (individual/group)
_____Discussion (panel or teacher initiated)
_____Oral and written reports
_____Use of textbooks
_____Role-playing
_____Other (specify)_____

9. How do you rate your current curriculum in terms of adequacy for an effective health education?

a. Content areas:

_____very adequate; _____adequate; _____undecided; _____inadequate; _____very inadequate

b. Instructional techniques:

_____very adequate; _____adequate; _____undecided; _____inadequate; _____very inadequate

IV. Textbooks and Instructional Materials

10. Which of the following instructional resources do you have for health education? (May be answered with more than one response.)

_____Textbooks on health
_____Charts
_____Journals
_____Outside speakers
_____Magazines
_____Posters
_____Articles

11. How often do you use the instructional resources checked in No. 10?

_____always _____occasionally _____never

12. How do you rate your current textbooks and instructional materials in terms of adequacy for an effective health education?

_____very adequate; _____adequate; _____undecided; _____inadequate; _____very inadequate

V. Physical Facilities and Equipment

13. Which of the following instructional equipment is available for health education? (May be answered with more than one response.)

_____Tape recorder/player
_____Television
_____Bulletin boards
_____Overhead projector
_____Film projector
_____Slide projector
_____Filmstrips projector
_____Other_____

14. Of the following areas, where are the health education classes taught? (May be answered with more than one response.)

_____Dressing/locker room located in the gymnasium
_____Classroom located in the gymnasium
_____Regular academic classroom
_____Other (specify)_____

15. How do you rate your current facilities and equipment in terms of adequacy for an effective health education?

_____very adequate; _____adequate; _____undecided; _____inadequate;
_____very inadequate

VI. Methods of Evaluation

16. What techniques are used in evaluating health education?

_____Questionnaires to parents, students, or other interested personnel
_____Evaluation from specialists
_____Observations
_____Tests and health questionnaires
_____Interviews and discussions
_____Other (specify)_____

17. How often is health education evaluated?

_____Never _____Every 2-5 years
_____On a continuous basis _____Other_____

18. How do you rate your current methods of evaluation in terms of adequacy for an effective health education?

_____very adequate; _____adequate; _____undecided; _____inadequate;
_____very inadequate

VII. Instructional Responsibilities

19. Please answer the following questions on the instructional responsibilities as it applies to your health education teacher.

a. Educational level:

_____Less than a bachelor's degree (teacher's aide)
_____Master's degree _____Bachelor's degree
_____Completion of a Post-Master's program _____Doctor's degree

b. Responsibilities other than teaching health education: (May be answered with more than one response.)

_____Coaching
_____Instructor in Physical Education
_____Teaching in other academic disciplines
_____Other (specify)_____

20. How do you rate your current division of responsibilities in terms of adequacy for an effective health education?

_____very adequate; _____adequate; _____undecided; _____inadequate;
_____very inadequate

APPENDIX B

LETTER SEEKING PERMISSION TO USE THE INSTRUMENT

The University of Oklahoma 820 Van Vleet Oval Norman, Oklahoma 73019

College of Education

January 25, 1979

Dr. Barney R. Iles
Professor of Health and Physical
Education
East Texas State University
East Texas Station
Commerce, Texas 75428

Dear Dr. Iles:

During the Fall of last year, we conversed with you concerning the possibility of using the survey instrument you used in the completion of your dissertation or of modifying it to use in a dissertation study we are constructing here at the University of Oklahoma. At that time you indicated your consent for either of these options.

We have decided to use your instrument in modified form. A copy is enclosed. We would appreciate very much if you would examine the enclosed copy of the modified instrument and indicate in writing, preferably through a letter, your permission for us to utilize the instrument, as modified. We would also appreciate any comments or suggestions you would want to offer concerning the instrument or the study. It is possible that we may want to converse with you further during the analyzation of the data. We hope that you will give us such assistance as we may require.

Thank you for the help you have given us so far and for the help we hope you will give in the future. We look forward to hearing from you soon.

Sincerely,

Charles E. Butler
Professor Education

Joseph Fawole
Graduate Assistant (HPER)

CEB:pc

Enc.

APPENDIX C

LETTER GRANTING PERMISSION TO USE THE INSTRUMENT



EAST TEXAS STATE UNIVERSITY

February 7, 1979

Dr. Charles S. Butler
Mr. Joseph Fawole
College of Education
University of Oklahoma
820 Van Vleet Oval
Norman, Oklahoma 73019

Dear Dr. Butler and Mr. Fawole:

Concerning your request to use my survey instrument in its entirety or in modified form for the purpose of a similar study at the University of Oklahoma, I hereby grant permission for its use. I would ask that documentation indicate credit for the instrument in reporting the results of the study.

At the present time I have no suggestion concerning the instrument, but I would be happy to assist in any way with the analyzation of the data in the future.

Feel free to call upon me concerning any facet of the study or the instrument.

Sincerely,

Barney R. Iles

Barney R. Iles
Assistant Professor
Department of Health and
Physical Education

bi/sr

APPENDIX D

COVER LETTER ACCOMPANYING QUESTIONNAIRE

The University of Oklahoma 151 West Brooks Norman, Oklahoma 73069

Department of Health,
Physical Education and Recreation

15 January 1979

Dear Principal:

I am a doctoral student in the College of Education at the University of Oklahoma. I am writing to seek your help and cooperation by participating in a survey of health education instruction in Oklahoma Junior and Senior High Schools.

The study is being undertaken as a research project for a doctoral dissertation at the University of Oklahoma under the direction of Dr. Charles Butler, Professor of Secondary Education at the University. The results of this study will assist the school administrators, teacher education institutions, curriculum experts, and teachers in understanding what is going on in the area of health instruction in Oklahoma secondary schools, and hopefully, furnish them with some information on which to improve their programs.

The enclosed questionnaire will take about twenty minutes of your time if you will please complete it. I would like to assure you that the anonymity of the participating schools will be maintained when giving the report of the study.

To make it convenient for you to quickly return the completed questionnaire, I have enclosed a self-addressed stamped envelope. I will be more than happy to make the findings of the study available to you if you will indicate at the bottom page of the questionnaire that you want one.

Thank you very much in advance for sparing some time to complete the questionnaire. It is needless telling you that the success of this study depends very much on your cooperation.

Sincerely,

Joseph O. Fawole
Graduate Assistant (HPER)
University of Oklahoma

As Mr. Fawole's Doctoral Committee Chairman, I will appreciate any help you can extend him. If you have questions, please feel free to call me at 405-325-5975.

Sincerely,

Charles E. Butler
Associate Professor
Secondary Education

APPENDIX E

COVER LETTER ACCOMPANYING QUESTIONNAIRES FROM THE STATE DEPARTMENT OF EDUCATION

J. D. GIDDENS
ASST SUPERINTENDENT
INSTRUCTION

JACK STRAHORN
ASST SUPERINTENDENT
STATE-FEDERAL

S. H. MC DONALD
ASST SUPERINTENDENT
FINANCE

State Department of Education

LESLIE FISHER, Superintendent
LLOYD GRAHAM, Deputy Superintendent
TOM CAMPBELL, Associate Deputy Superintendent
2500 North Lincoln Boulevard
Oklahoma City, Oklahoma 73105

January 15, 1979

Dear Colleague:

We would appreciate your cooperation in completing the enclosed questionnaire from Joseph O. Fawole. The results will help us determine where we are at the present time concerning health education in Oklahoma.

Sincerely,

Harvey

Harvey Tedford, Administrator
Comprehensive Health Education

jb

APPENDIX F

FOLLOW-UP LETTER SENT TO NON-RESPONDENTS

The University of Oklahoma 151 West Brooks Norman, Oklahoma 73069

Department of Health,
Physical Education and Recreation

29 January 1979

Dear Principal:

You would recall that I mailed a questionnaire to you for completion two weeks ago about Health Instruction Survey in Oklahoma Junior and Senior High Schools. I have been lucky to get quite a few responses back but I have not yet received enough to make the study valid.

I will appreciate it very much if you can please spare a few minutes to complete your questionnaire, too, and mail it to me. The success of the study cannot be achieved without your cooperation and assistance.

I enclose another questionnaire with a self-addressed stamped envelope in case the first one I posted to you has been misplaced or was lost in transit. Your quick response will be highly appreciated.

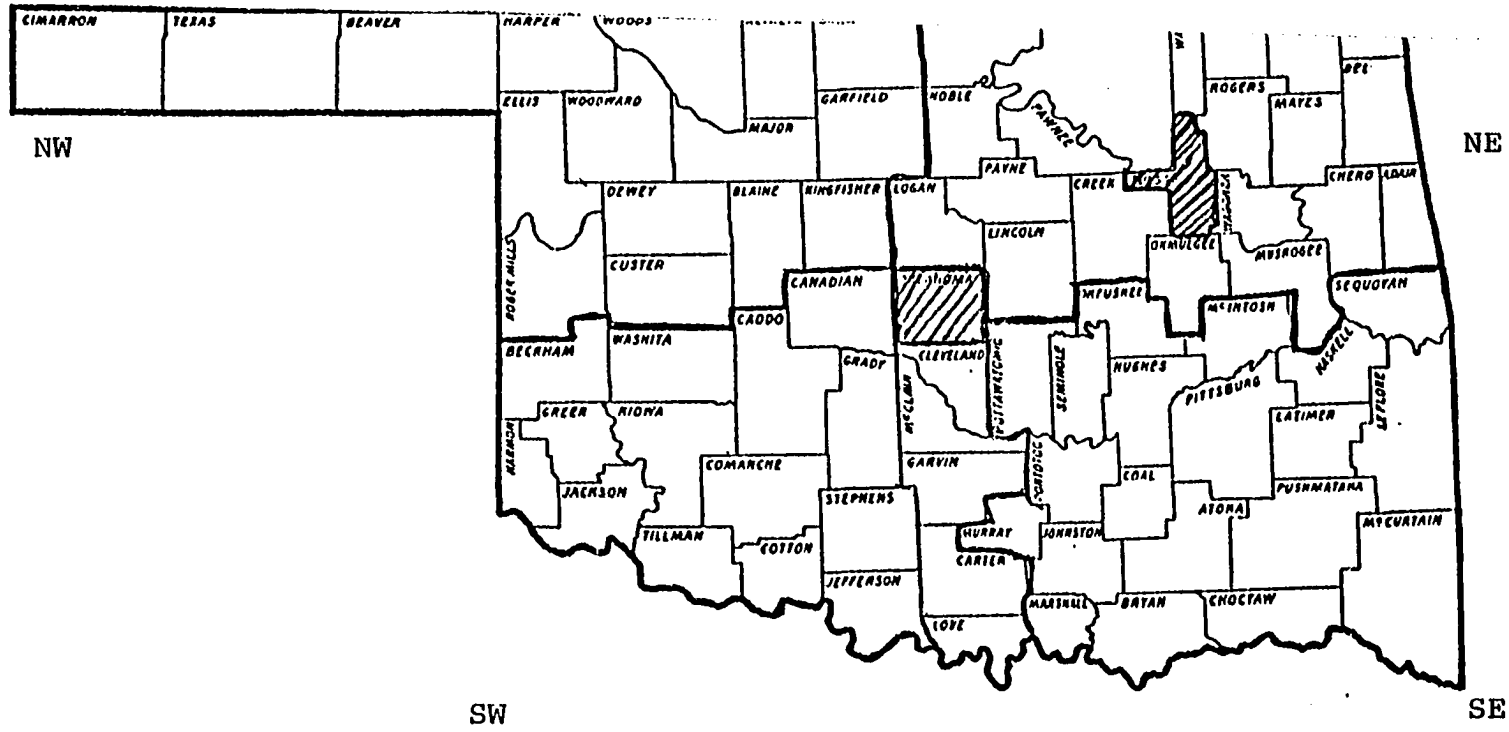
Sincerely,

Joseph O. Fawole
Graduate Assistant (HPER)
University of Oklahoma

APPENDIX G

A MAP OF OKLAHOMA SHOWING THE FIVE REGIONAL DIVISIONS USED IN THE STUDY

MAP OF OKLAHOMA SHOWING THE FIVE REGIONS USED IN THE STUDY



Key

Metropolitan Areas