

A Profile and Annotated Bibliography of Selected Scholarly Works of Robert S. Gold, PhD, DrPH Michael Schmoyer, MS, CHES¹; Robert M. Weiler, PhD, MPH¹; Robert J. McDermott, PhD, FAAHB²

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Abstract

English:

Robert S. Gold, PhD, DrPH has made remarkable contributions as a health educator for more than 30 years. This article presents a brief biographical profile of Dr. Gold, as well as an annotated bibliography of several of his published articles. This profile details his current endeavors, educational background, and noteworthy examples of his work. The annotated bibliography is divided into six sections: Computer Applications, Discussion Regarding the Field of Health Education, Primary and Secondary Data Analyses, Research, Evaluation and Measurement, Literature Reviews, and Technology Discussions. The annotations provide source information, the purpose, the results and/or conclusions, and insights into the significance of the work. Each of the articles in these sections is presented chronologically.

Spanish:

Por los pasados 30 años, Robert S. Gold, PhD, DrPH a contribuido extraordinariamente como educador en salud. El siguiente artículo presenta un breve perfil biográfico del Dr. Gold, al igual de una bibliografía anotada de algunos de sus artículos publicados. Este perfil detalla sus esfuerzos actuales, su formación educativa y ejemplos notorios de su trabajo. La bibliografía anotada esta dividida en seis secciones: Aplicaciones de Computadoras, Discusiones Relacionadas al Campo de la Educación en Salud, Análisis Principal y Secundario de Datos Investigativo, Evaluación y Medición, Revisión de Literatura, y Discusiones de Tecnología. La anotaciones proveen la fuente de información, el propósito, resultados y/o conclusiones, y el significado de la idea del trabajo. Cada uno del los artículos son presentados cronológicamente en las secciones.

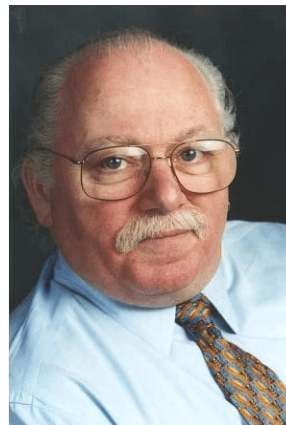
Key words: *biography, annotated bibliography, computer applications, technology*

Introduction

Robert S. Gold is a multifaceted health educator and an internationally renowned expert in the application of technology to health education. In addition, he has held key positions in some of the premiere organizations within the country. Whereas a large portion of his research endeavors have focused on technology, he has considerable contributions to other areas as well.

Since July 2002, Dr. Gold has been Dean of the College of Health and Human Performance at the University of Maryland (UMD). Also, he is the director of the Public Health Informatics Lab at UMD, a research and evaluation lab that heavily emphasizes multimedia-based training and educational applications. Previously, Dr. Gold served as Chair of UMD's Department of Public and Community Health. In addition, he has held positions at the World Health Organization, the Office of Disease Prevention and Health Promotion, Macro International, Southern Illinois University at Carbondale, and the State University of New York College at Brockport.

Dr. Gold earned a PhD in health education from the University of Oregon in 1976, and a DrPH in 1980 from the University of Texas School of Public Health in Houston. His previous educational work was completed at SUNY Brockport (M.S. in 1971 and B.S.



in 1969) and Orange County Community College (A.S. in 1967).

Dr. Gold has authored or co-authored over 70 articles, 13 books, and multiple book chapters. In addition, he has developed at least 14 different technology based projects including: HealthQuest, ABLEDATA, Time Out, Self-Care CD-ROMs for the Department of Defense, Cancer Prevention CD-ROMs for the National Cancer Institute and many more. Furthermore, he has directed or served on the staff of several national investigations, including those of the National Eye Institute, United States Army Medical Research and Material Command, and the National Institutes of Health.

Dr. Gold is internationally renowned for his expertise in the application of advanced communications technologies to health education, ranging from interactive video and computer software,

to knowledge management, decision support, and expert systems technology. In addition, Dr. Gold has extensive training and experience in health-related research and evaluation for which he has received national awards. He has served in both public and private sector positions and has been responsible for planning, directing, and evaluating local through international programs.

A portion of Dr. Gold's international experience includes an assignment at the World Health Organization (WHO) where he was invited to help re-establish the Division of Health Education/Health Promotion (1988-89). The Division of Adolescent and School Health (DASH) at the Centers for Disease Control and Prevention (CDC) was particularly interested in this endeavor due to its potential for developing a coordinating center on adolescent and school health. Dr. Gold's work focused on building relationships with partnering organizations such as UNESCO.

During the past 30 years, Dr. Robert Gold has demonstrated that knowledge is indeed power. His contributions cover the broad range of research, education, technology, and program evaluation. What follows is an annotated bibliography of several of Dr. Gold's published articles. These works appear in chronological order to show the linear progression of his work. Moreover, they are subdivided into six sections: *Computer Applications*, *Discussion Regarding the Field of Health Education*, *Primary and Secondary Data Analyses*, *Research, Evaluation and Measurement*, *Literature Reviews*, and *Technology Discussions*.

Computer Applications

Gold, R.S. (1984). Computing health: Alcohol metabolism rates part I. *Journal of Health Education*, 15 (5), 35-36.

This article demonstrates the process of computer programming [in Basic]. Steps that are covered include defining the problem, developing the solution, coding or writing the program, testing the program as well as debugging it, and documentation of the process. While the language of the program is not used anymore, the principles behind these steps still apply to Java and other programming languages.

Gold, R.S. (1984). Computing health: Current initiatives. *Journal of Health Education*, 15 (5), 48-49.

This study details specific publications regarding health and computers. The author lists specific journals that have entire issues devoted to computers and describes several clearinghouses with health related software. The author lists health organizations and the software they distribute, health-oriented sessions within conferences, and multiple articles that have been published recently that concern computers and health education.

Gold, R.S. (1984). Computing health programming problem II: Computing peak blood alcohol levels. *Journal of Health Education*, 15 (4), 23-24, 68.

This second part of computing peak alcohol blood levels reviews the prior article (*Computing health: Alcohol metabolism rates part I*), discusses how to develop the blood alcohol level, as well as reviews the 1984 version of the nutritional analysis program DINE.

Gold, R.S. (1985). Computing peak blood alcohol levels. *Journal of Health Education*, 15 (7), 15.

This article illustrates how to add a cover page and an introduction to the blood alcohol level program. In addition, the program is adapted to calculate peak blood alcohol levels following any drink. For its time, this would be a useful addition to the blood alcohol program.

Gold, R.S. (1985). Completing the program. *Journal of Health Education*, 16 (1), 20-21.

This article completes the blood alcohol level program that was started in previous computing articles that discussed BAC. The program is changed to consider the beverage consumption and the length of time required to consume a beverage.

Henningson, K.A., Gold, R.S., & Duncan, D.F. (1986). A computerized marijuana decision maze: Expert opinion regarding its use in health education. *Journal of Drug Education*, 16 (3), 243-261.

This evaluation provides direction for assessing the applicability of simulation-type programs to health education. The Delphi Technique is used to assess educators' expert opinions on the marketability of the Marijuana Maze, a computerized program. Participants provide feedback on the importance, feasibility, desirability of the goals, as well as ways strategies for applying the program. Limitations of the study are presented. This was one of the first attempts to evaluate health education software.

Discussion Regarding the Field of Health Education

Christenson, G., Gold, R.S., Katz, M., & Kreuter, M. (1985). Preface. *Journal of School Health*, 55 (8), 295-296.

This article is a preface to a collection of articles about the School Health Education Evaluation (SHEE) project. The authors urge readers to develop an understanding of the results and how they can be used to promote school health education.

Gilbert, G., & Gold, R.S. (1985). Comments from the field. *Journal of School Health*, 55 (8), 348-350.

This commentary is about the School Health Education Evaluation project and focuses on the role of elementary teachers teaching health education. The commentary also raises the question-- What must be done to increase the number of elementary and secondary schools offering health information and skills to children?

Chervin, D., Sloane, B., Gordon, K., & Gold, R.S. (1986). Achieving the health objectives of the nation

in higher education. *Journal of American College Health*, 35 (1), 15-20.

The authors identify the health objectives from *Healthy People 1990* related to college health; they then describe measures colleges and universities are undertaking to address the priority areas. Also, factors which are expected to influence student health in the 1990s, such as: demographic and social changes, changes in health care financing, changes in structure and delivery of health care, and changes in health philosophy are discussed as well. The authors conclude that a partnership of health services will be necessary to increase the well being of college students. This article proved to be insightful for the *Healthy People 2000* and *Healthy People 2010* objectives.

Gold, R.S., & Kelly, M. (1988). Is knowledge really power? *Journal of Health Education*, 19 (4), 40-46.

This article seeks to answer the question, is knowledge (as we know it) really power? Three main areas are examined: 1) health education research, 2) computer applications in health education, and 3) *Healthy People 1990*. The authors state that if knowledge is power and the control of information could control our destinies, why is the role of knowledge in health education and healthy behavior so maligned and misunderstood?

Gold, R.S., Gilbert, G., & Greenberg, J. (1989). Credentialing and the future of health education. *Wellness Perspectives*, 6 (1), 46-55.

The authors review specific benefits of credentialing and give suggestions for improvement. Interestingly, many of the questions presented in this article are still hotly debated.

Ross, J., Gold, R.S., Lavin, A., Errecart, M., & Nelson, G. (1991). Design of the teenage health teaching modules evaluation. *Journal of School Health*, 61 (1), 21-25.

The authors describe the objectives of the Teenage Health Teaching Modules (THTM) curriculum, the research design, the participating sample of schools, students, and teachers, and the student and teacher questionnaires. The THTM assessed the effectiveness of this secondary school health education curriculum, and identified factors that influence successful curriculum implementation and student outcomes.

Primary and Secondary Data Analyses
Allen, R., Webb, L., & Gold, R.S. (1980). Validity of problem-oriented record system for evaluation treatment outcome. *Psychological Reports*, 47 (1), 303-306.

The authors describe a study of the concurrent validity of therapists' assessments of patients' change as recorded by a problem-oriented record system. Results show the system gives a valid measure for assessing patients' status over time on those dimensions measured by the criterion indices.

Webb, L., Gold, R.S., Brady, C., Chapman, R., Ferree, E., & DeLange, W. (1980). Employees'

satisfaction among workers in mental health settings. *Psychological Reports*, 47 (1), 30.

The authors discuss the results of a survey of job satisfaction among employees in three mental health organizations. Results show that employees were generally satisfied with their field and work, coworkers, and supervisors. However, there was considerable dissatisfaction with pay and promotion opportunities. This would be an interesting study to implement in a student health care services setting.

Webb, L., Gold, R.S., Howes-Coleman, K., Holley, M., Reck, J., & Trusch, H. (1980). Reliability of a problem-oriented record system approach to evaluation of treatment outcome. *Psychology Reports*, 46 (1), 452-454.

The authors examine the reliability of the problem-oriented record system by examining the degree of inter-rater agreement among therapists on the nature of a problem presented and the severity of the problem for 32 patients. The system was found to be reliable for recording patient problems, but the inter-rater reliability was too low. An interesting application would be using computers to record patients' data.

Justice, B., Gold, R.S., & Klein, J. (1981). Life events and burnout. *Journal of Psychology*, 108 (2), 219-226.

The authors examine the specific role of life events, both in and out of the workplace in the potential for burnout. They found that negative life changes might promote burnout or aggravate it, although positive events can serve as a buffer against the impact of negative events.

Gold, R.S., Webb, L., & Smith, J. (1982). Racial differences in job satisfaction among white and black mental health employees. *Journal of Psychology*, 111 (2), 255-261.

This study is designed to assess the satisfaction of paraprofessional and professional mental health employees between black and white workers. Authors report that black employees were significantly less satisfied with their jobs than their white counterparts. But in this sample, the only factor that was directly comparable between races was productivity.

Belcastro, P.A., & Gold, R.S. (1983). Teacher stress & burnout. *Journal of School Health*, 53 (7), 404-407.

This study identifies the relationship between reported levels of stress and somatic complaints and selected illnesses. Results show that more than 11% of the respondents were considered "burned-out." The authors conclude that burnout represents a health risk to teachers in this study. Implications suggesting help for school health personnel in managing stress are discussed as well. This study could be replicated with university faculty as the target population.

Belcastro, P.A., Gold, R.S., & Hays, L. (1983). Maslach burnout inventory: Factor structures for samples of teachers. *Psychological Reports*, 53 (2), 364-366.

The researchers seek to determine the factor structure of the original 25-item inventory for select samples of teachers in public schools. Results show that the scales in this study are consistent with previous scales. This study augments a previous study (*Teacher Stress & Burnout*).

Page, R., & Gold, R.S. (1983). Assessing gender differences in college cigarette smoking intenders and nonintenders. *Journal of School Health, 53 (9), 531-535.*

This article examines whether gender differences in variations in cigarette smoking exist concerning beliefs of the consequence of smoking, evaluation of those consequences, normative beliefs, and the individual's motivations to comply. The researchers find a significant gender difference in beliefs regarding consequences of smoking and normative beliefs regarding smoking and motivations to comply. This article points out its limitation concerning a questionable predictive ability. The authors conclude that educational and treatment programs should address members of genders in different ways.

Gold, R.S., Smith, J., & Kulp, J. (1985). Evaluation of a cold comfort center. *Health Values, 9 (1), 18-22.*

The authors assess the effectiveness of a cold comfort center in increasing self-care behaviors of university students, and decreasing number of unnecessary visits. Results show that the cold comfort center may be cost effective, but may not significantly affect students' self-care behavior.

Horne, D.A., McDermott, R.J., & Gold, R.S. (1985). Analysis of breast self-examination practice using Fishbein's model of behavioral intentions. *Journal of Health Education, 16 (6), 40-44.*

The authors examine the extent to which Fishbein's Model was able to predict Breast Self-Examination (BSE) behavior. They found that the model was able to predict BSE intentions for the sample as a whole. The model was able to predict BSE intentions for sub-optimal frequency practitioners, but not for optimal practitioners or non-practitioners. Replicating this study, substituting Testicular Self-Examination (TSE) intentions or self-skin examinations, as the targeted behavior would expand the applicability and utility of the model.

McDermott, R.J., & Gold, R.S. (1986-87). Racial differences in the perception of contraception option attributes. *Journal of Health Education, 17 (6), 9-14.*

This study focuses on racial differences in perceived attributes of 10 contraception options by never-married college students. The pill ranked first as an approved option, and the rhythm method ranked second for all never-married college students. Withdrawal was the least acceptable. The condom was ranked third by Blacks, were as Whites ranked it eighth. Unfortunately, the sampled black males were few in number.

Nicholson, T., Duncan, D.F., Hawkins, W., Belcastro, P.A., & Gold, R.S. (1988). Stress

treatment: Two aspirins, fluids and one more workshop. *Professional Psychology, 19 (6), 637-641.*

The authors give a meta-analysis of 62 different articles concerning stress management. Results showed mildly encouraging results but had strong concerns with methodological and theoretical issues. Programs were reported to have "worked" but most had vague criteria. A replication of this study after 15 years would be interesting.

Eddy, J., Gold, R.S., & Zimmerli, W. (1989). Evaluation of worksite health enhancement programs. *Health Values, 13 (1), 3-9.*

This paper provides health educators with some basic points to consider when evaluating worksite health programs. Points include knowing the basic reasons for evaluation, understanding the corporate culture, using evaluation in the context of the total program, evaluating at many levels, following appropriate methodological and design procedures, and knowing the possible pitfalls of evaluation in the workplace.

Errecart, M., Walberg, H., Ross, J., Gold, R.S., Fiedler, J., & Kolbe, L.J. (1991). Effectiveness of teenage health training modules. *Journal of School Health, 61 (1), 10-14.*

The authors assess the effectiveness of the Teenage Health Training Modules (THTM) curriculum and the representation of the study population. Results show a positive impact on health knowledge of junior high, middle school, and senior high students. There was also a positive net effect on health attitudes of senior high students. Moreover, there was a positive net effect of curbing illegal drug use among senior high students.

Gold, R.S., Parcel, G., Walberg, H., Luepker, R., Portnay, B., & Stone, E. (1991). Summary and conclusions of the THTM evaluation: The expert work group Perspective. *Journal of School Health, 61 (1), 39-42.*

This article discusses what was learned from the Teenage Health Teaching Modules (THTM) evaluation. The study found many results including curriculum effectiveness, implementation results, and teacher training. Also, specific strengths of the evaluation itself were discussed. However, there were some weaknesses, including self-reported data, attrition, and a short follow-up period. Possible questions for future research are explained.

Hodges, B., Leavy, M., Swift, R., & Gold, R.S. (1992). Gender and ethnic differences in adolescents' attitudes toward condom use. *Journal of School Health, 62 (3), 103-106.*

The authors examine relationships between adolescents' personal and perceived peer attitudes toward condom use. The authors found that there is a general personal support and a perceived peer support. However, although support exists, there may be a need for more individualized and tailored messages.

Garrison, R., Gold, R.S., Wilson, P., & Kannel, W. (1993). Educational attainment and coronary heart

disease risk: The Framingham offspring study. *Preventive Medicine*, 22 (1), 54-64.

This study examines relationships between education attainment and risk factors for coronary heart disease. Results show that most components of the coronary heart disease risk profile show adverse levels in individuals with lower educational attainment. Of noteworthiness, this article was one of the first to show new evidence that educational attainment differentials resulted not only from smoking cessation, but also better cholesterol profiles and healthy blood pressure. **McDermott, R.J., Sarvela, P.D., Gold, R.S., Holcomb, D.R., Huetteman, J.D., & Odulana, J. (1993). Attributes assigned to contraception by college students: 1985 and 1990. *Health Values*, 17 (5), 33-41.**

This article compares connotative meanings assigned by college students to contraceptive options to the meanings identified five years earlier [see McDermott, R.J., & Gold, R.S. (1986-87). *Journal of Health Education*, 17(6), 9-14]. Results show that college students are now more favorable to the condom and the diaphragm; students are least favorable toward rhythm, foam, vasectomy, and IUD. There are considerable similarities between males and females regarding evaluation of contraception options. Also, barrier method education may be achieving gradual assimilation and less effective and practical methods may be declining. It is suggested that an exploration of options and effectiveness of combinations of methods be done.

Collins, J., Small, M., Kann, L., Pateman, B., Gold, R.S., & Kolbe, L.J. (1995). School health education. *Journal of School Health*, 65 (8), 302-311.

This article describes the School Health Policies & Programs Study (SHPPS), which assessed the effectiveness of state, district, and school health programs in the United States. Specifically, health education, physical education, health services, food services, and health policies were investigated. Results show that there are positives (for example, nearly every state has a person directing school health education) and negatives (only a few states include health education topics as a part of mandated testing) associated with health education in the schools. Suggestions for strengthening future programs are given. This is the first SHPPS study.

Ross, J., Einhaus, K., Hohenemser, L., Greene, B., Kann, L., & Gold, R.S. (1995). School health policies prohibiting tobacco use, alcohol and other drug use, and violence. *Journal of School Health*, 65 (8), 333-338.

This article assesses school health policies regarding tobacco use, alcohol and other drugs, and violence at state, district and school levels. This study examined a subset of data collected by the School Health Policies & Programs Study (SHPPS). The SHPPS described the presence of tobacco, alcohol, and other drug policies as well as specific details, but the

authors find inconsistencies concerning the actual enforcement of those policies.

Douglas, K; Collins, J., Warren, C., Kann, C., Gold, R.S., Clayton, S., Ross, J., & Kolbe, L.J. (1997). Results from the 1995 National College Health Risk Behavior Survey. *Journal of American College Health*, 46 (2), 55-66.

Results show that many students' behaviors increase their likelihood of adverse health outcomes. Data were analyzed by gender, age, race, and ethnicity.

Research, Evaluation and Measurement

Gold, R.S., Basch, C.E., & McDermott, R.J. (1983). Multi-matrix sampling: A valuable data collection method for health educators. *Journal of School Health*, 53(4), 272-276.

The authors examine the utility of multi-matrix sampling as a technique in health education research that permits quality collection of large quantities of data without lengthy questionnaires, or excessive time demands, or respondents. They also state that multi-matrix sampling combines the advantages of item and examinee sampling, while still allowing the potential for greater scope of coverage and improved precision of measurement. It is suggested that because of lack of funds for health education research and evaluation, multi-matrix sampling may be a great alternative to traditional data collection methods.

Gold, R.S., & Basch, C.E. (1984). Multi-matrix sampling: An approach to evaluation of health education programs. *Health Education Quarterly*, 10(3/4), 135-148.

The purpose of this paper is to test multi-matrix sampling as an alternative to traditional methods of sampling. There is no significant difference between estimates of mean test performance between examinee sampling and that of multi-matrix sampling. Also, it is explained that health education practitioners in large settings could use multi-matrix sampling. This procedure provides for greater coverage of "large universes of items and large target populations." Because data collected is reduced in amount, the cost of research and evaluation may be decreased. Furthermore, validity is increased because errors that are associated with larger data sets are minimized. Also, there tends to be an increase in response rates because of a decrease in the number of items on the assessment. **Basch, C.E., & Gold, R.S. (1985). The validity of reliability assessments. *Journal of School Health*, 55 (5), 191-195.**

This study reviews the reliability and evaluation of a school-based health education program. The article details the estimates of cognitive measures of stability, equivalence, and internal consistency. The paper evaluates the School Health Curriculum Project (SHCP) for reliability. Results show that internal consistency might not apply for measures given to different groups, as well as a problem with stability of results over time.

Rudolph, A., McDermott, R.J., & Gold, R.S. (1985). Use of statistics in the Journal of School Health 1979-1983: A content analysis. *Journal of School Health, 55 (6), 230-233.*

This article identifies the type and frequency of statistics in the *Journal of School Health* over a period of five years. Questions driving the content analysis were concerned with reader statistical knowledge, applicability of statistical studies to the readers, and which statistical techniques are used more often. The study reports a couple limitations: 1) The reliability of the statistics within the articles was assumed; and 2) The readers may not have noticed the more subtle statistical uses within the articles. The article concludes: 1) Readers of the *Journal of School Health* would be able to interpret and apply more of the articles if they had a more thorough knowledge of basic statistical procedures; and 2) The quality of the articles might be improved if authors had more knowledge of statistical procedures.

Basch, C.E., & Gold, R.S. (1986). The dubious effects of Type V errors in hypothesis testing on health education practice and theory. *Health Education Research, 1 (4), 299-305.*

The authors reflect on the potential for relying too heavily on statistical inference and quantitative techniques as solitary decision criteria in health education and evaluation. This article reviews several issues and suggests a new error, Type V. A Type V error states that there is a correct statistical significance, but an incorrect assumption that the difference is important to "real life." The authors give an example of a Type V error within a case study.

Gold, R.S., & Basch, C.E. (1986). Research and evaluation: An overview. *Journal of Health Education, 17 (5), 4,33.*

This article provides an overview of why research and evaluation is important to health education. It is stated that research is getting answers to questions relating to theory, knowledge, or hypotheses. Evaluation, on the other hand, provides information for action. There are similarities, though. For example, observations are repeatable, both are subject to tests to see if results are due to chance, both require control of outside variables, and the process must be as objective as possible.

Literature Reviews

Kaiser, C., & Gold, R.S. (1973). Perceptions, psychedelics and social change. *Journal of Drug Education, 3 (2), 141-150.*

The authors indicate that in the past, experiences that were provoking of social change were associated with altered states of consciousness. Drugs that alter consciousness (with their increased availability) may elicit social change. Also, a new perceptual configuration may change dependence or social institutions governed by perception.

Syre, T., & Gold, R.S. (1981). Child abuse and neglect: Two concerns for school health educators. *Health Values, 5 (6), 265-269.*

The authors examine the problems associated with child abuse and neglect. The authors report that there are no standard definitions, but they list identifying factors. Activities are suggested that could be done, such as reporting schools share information, support, education, and community organization efforts.

Basch, C.E., Gold, R.S., McDermott, R.J., & Richardson, C.E. (1983). Confounding variables in the measurement of cancer patient compliance. *Cancer Nursing, 6 (8), 285-293.*

This article reviews factors and issues associated with patient compliance literature that is focused on cancer patient compliance measurement. Specifically this article reviews provider-patient relationships (which was stated to need further investigation), therapeutic regimen (extensive information, but rather ambiguous), psychological variables and other physical characteristics of the patients, biostatistical considerations (types of bias), and defining/measuring behaviors that are associated with compliance. Suggestions for future compliance studies are provided.

Gold, R.S., Gilbert, G., & Levine, D. (1984). Training needs in school health education research. *Journal of School Health, 54 (4), 67-74.*

This paper reviews the history of professional preparation of health educators, presents aspects of school health education research, and identifies training models that are being used to prepare health education researchers. Some issues brought forward regarding research are 1) the need for well-designed research in school health education, 2) the diversification of those doing school health research, and 3) the development of professional competency within health education. The article concludes by suggesting that the current training models, with their multidisciplinary research styles, address several of the profession's needs.

Duncan, D.F., & Gold, R.S. (1986). Reflections: Health promotion—What is it? *Health Values, 10 (3), 47-48.*

The authors attempt to conceptualize health promotion. Health promotion is described as a part of conceptualization of health services. Altogether, there are three parts attributed to health services: health promotion, health maintenance, and health restoration.

Gold, R.S. (1990). The World Health Organization: School health initiatives. *Journal of School Health, 60 (7), 370-378.*

Some critical events that have occurred during the past five decades are reviewed. Also, several current and future activities are identified and described.

Technology Discussions

Gold, R.S., & Duncan, D.F. (1980). Potential uses of microprocessors for home health education. *Health Values, 4 (2), 69-70.*

This article discusses how computers can be used at home for health education. The authors list several

advantages, including: 1) one-on-one interaction, 2) accurate, consistent, unbiased information, 3) ability to gather and store information, 4) readily available when needed, 5) fast speed and accuracy of recall, and 6) faster than reference books. Disadvantages listed were 1) hardware failure, 2) cost, 3) lack of applications, 4) non-impact information capability, and 5) lack of cross-platform compatibility. They list several necessities for the use of computers in health education. For example, the technology must be individualized, applications should be useful for many people, the applications should be generalizable to many, and the applications must have components that impact knowledge, attitude, and behaviors. Gold and Duncan showed enormous insight for their time—many of their predictions of where the field of health education would go concerning technology came true.

Gold, R.S. (1983). Computing health. *Journal of Health Education, 14 (6), 8-9.*

This article intends to reflect the increased demand of health educators for information regarding potential applications of computers to health education in a variety of settings. Several sections within this normal column are discussed, such as tutorials on programming, software and hardware reviews, events online, and technologically based networking.

Gold, R.S. (1983). Computing health: Choosing statistical software for microcomputers. *Journal of Health Education, 14 (7), 33-35.*

The author discusses criteria for selection of statistical software, including: 1) what the package is designed to do, 2) quality of sources of computational techniques, 3) physical limitations of the software, and 4) how it handles missing data. This article also includes an interesting comparison chart of statistical packages that were available at that particular time.

Gilbert, G., Gold, R.S., Scaffa, M., Jackson, C., Walter, S., Thombs, D., Swift, R., & Hodges, B. (1993). Assessing statewide drug prevention and treatment resources: The Maryland database on alcohol and drug prevention and treatment programs. *Journal of Health Education, 24 (1), 30-36.*

The authors intend to present the components and steps followed to create the Maryland Data Base on alcohol and drug prevention and treatment programs. The article discusses computerized databases, printed directories, a toll-free information services and report generating service. It is concluded that this model could aid other states in order to show cooperation between a health education program and state government.

Gold, R.S. (1984). Computing health: Sources of information for educators. *Journal of Health Education, 15 (2), 39-40.*

This brief article discusses the best sources of information concerning computers and technology for educators. It is thought that because of the excessive amount of information that is available, it is imperative

that educators be able to focus their time and effort to the best sources (journals and magazines).

Gilbert, G., & Gold, R.S. (1983). History is not kind to idlers. *Journal of Health Education, 14 (6), 6-7.*

This article describes how education and health care services must change to reflect the inundation of technology within society. This article also serves as an introduction to articles that 1) address the potential of technology, 2) explains technological applications, and 3) discusses caveats for using technology.

Horne, D.A., & Gold, R.S. (1983). Guidelines for developing health education software. *Journal of Health Education, 14 (6), 85-86.*

These guidelines provide a list of characteristics of quality software as identified by a variety of educators, and software that has been developed. Characteristics that are included are: program content, screen formats, program timing, graphics, program operations, motivation and feedback, program instruction, program objectives, program language, and instructional techniques. These characteristics are timeless, and are as valuable now as when the article was written. Perhaps one characteristic that would be included now is “operating system compatibility.”

Kelly, M., & Gold, R.S. (1988). Expert systems in health education. *Journal of Health Education, 15 (1), 32-33.*

This article defines expert systems as a “program or group of programs designed to mimic the capabilities of human experts.” The authors explain reasons why expert systems are not used and why “stand-alone applications will not be integrated into expert systems.” However, there are benefits listed that concern when/if expert systems are used within health education.

Gold, R.S. (1998). The potential of technology in health education: In recognition of the first HEDIR Award. *International Electronic Journal of Health Education, 1, 52-59.*

This article is based on a presentation Dr. Gold made at the 125th Annual Meeting of the American Public Health Association in Indianapolis, Indiana as the first recipient of the [HEDIR](#) Technology Award. He reviews the brief history of computer technology and the parallel development of health education theory during this same era. Guidance for this article emanates from Gold’s beliefs that: (1) many people perhaps never reach their full communicative potential because of a lack of access to technologies, and (2) given the capability of technology to simulate environments, we should be training health educators about interventions in “risk free” situations prior to releasing them to practice on individuals and communities. He concludes that there need to be people and actions that encourage technology transfer (computer and other communication technologies) to health education delivery systems and problem solving.

Summary

Dr. Gold has guided senior level health professionals, practitioners, novice researchers, and scores of students

in these past 30 years. His research has inspired others' achievements, and has given insights that are invaluable in today's environment that focuses on credentialing concerns, health education research agendas, and the applications of technology to the field.

Whereas it is always difficult to stay current with technology, Dr. Gold has shown that it is folly to ignore it. Emerging technology provides the tools that allow us to do some things that we were not able to do before, or to do them better than we otherwise might with old technology. In addition to showing us that we should embrace technology, Dr. Gold also has repeatedly shown us how to do so. As suggested by Dr. Gold himself, with the presence of more and more research and publications concerning technology, we are made aware of the possibility and drive for new and potential applications of that technology within a variety of health education settings.

In conclusion, Robert Stanley Gold can be expected to continue to break new ground for health education researchers and practitioners alike in the future. Although he has already left a mark that could serve as a legacy for generations of health educators to come, there are some people who believe that the creative potential and gargantuan energies of this man are only just beginning to be tapped.

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