SABBATICAL LEAVE REPORT SPRING SEMESTER, 1989

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by

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found it most difficult, if not impossible, to achieve my goals during this sabbatical leave.

INTRODUCTION

Computers have been used in most academic settings to instruct the student to write programs, rather than as a tool to assist the individual to acquire specific knowledge or skills necessary for dealing with work-related applications of the computer.¹ It is important that we, as educators, acknowledge that the computer is a powerful force for use in the acquisition and generation of information. Likewise, computers have important roles in instruction by helping people acquire essential information. Increased productivity of faculty, professional staff and students are documented benefits of computers.²,³ An increase in the use of computers in general education and their application in health care facilities make it imperative that nurse educators become comfortable with and proficient in the operation of computers.⁴

The computer has been credited with giving the school system tremendous <u>potential</u> educational possibilities, which have

¹ Seymour, Jim. "The Proper Role of Computers in Education." <u>PC Computing</u>, Volume 2, Number 1, January, 1989, pages 98-99.

² Aiken, Eula. <u>MOVING INTO THE AGE OF COMPUTER-SUPPORTED EDUCATION</u>. Atlanta: Southern Regional Education Board, April, 1988.

³ Belfry, M. Joan and Philip H. Winne. "A Review of the Effectiveness of Computer Assisted Instruction in Nursing Education." <u>Computers in Nursing</u>, Volume 6, Number 2, March/April, 1988, pages 77-85.

Aiken, Eula. <u>COMPUTER USE IN UNDERGRADUATE NURSING EDUCATION PROGRAMS: A STUDY OF 550</u> <u>PROGRAMS.</u> Atlanta: Southern Regional Education Board, March, 1988.

largely gone untapped.⁵ Those schools that pioneered the use of computers in education a decade ago have largely been ignored by the educational community. "Among the chief educational challenges of the twenty-first century will be financing the effort to teach our children to use our society's wealth of technological tools."⁶

To better assess and meet the needs of individuals within our school system, we must begin to address the problem of utilizing the computer to teach and to bring about <u>individualized</u> instruction and evaluation methodology . Some uses that benefit students include: drill and practice, which provides opportunity for the individual to review and repeat information as many times as needed; tutorial applications, which guide learning to correct interpretation of information - at their own pace; games, mathematical modeling, word processing, graphic packages, all of which help students to develop critical thinking skills and improve intellectual comprehension. In addition, computers free faculty from the monotonous, repetitive tasks, thereby providing the necessary time to develop new, updated lesson plans in this ever-changing health-care profession.'

⁷ Aiken, Eula. <u>MOVING INTO THE AGE OF COMPUTER-SUPPORTED EDUCATION</u>. Atlanta: Southern Regional Education Board, April, 1988, page 2.

⁵ Ellison, Carol. "PC's in the Schools: An American Tragedy," <u>PC COMPUTING</u>, Volume 2, Number 1, January, 1989, pages 96-104.

⁶ <u>IBID</u>, page 103.

Experts and researchers postulate that not only is theory learned through computerized instruction; the individual also gains the skills that will carry him/her into the future with the communication - interaction scheme so necessary in our society.⁴ Therefore, making the entry into nursing practice easier for the student is a side benefit of learning principles and concepts via computerized instruction.

Although we have spent two billion dollars on computers in schools, only 25 percent of the students can use them. A recent study indicates that little is being done to enable students to learn to use computers or to profit from them as 'teachers.' This is born out from my findings as well. The quality of the educational process is diminished by the lack of attention being paid to the potential of the computer. By providing a variety of software programs to students, they will be able to explore many avenues that are of potential interest to them. Without such exploration, the student will remain ignorant of a wide range of possibilities. The potential for the computer to enhance the teacher's effectiveness encompasses its usefulness in terms of individualized, personalized instruction that might enable some students - who might otherwise fail - to be successful in mastering some particular content area. Software that simulates real-life scenarios enables the student to envision with greater

⁸ Manes, Stephen. "High-Tech High: A PC Success Story." <u>PC Computing</u>, Volume 2, Number 1, January, 1989, pages 100-101.

accuracy what the career-related expectations they have chosen hold for them. ⁹ Some studies indicate that students with lower abilities experience improvement in their behavior and attitude, greater self-confidence and improved self-discipline with the use of computers.¹⁰

Findings from a recently published study of computer use in undergraduate nursing education programs indicate that of 550 programs in the United States the following were true:

Microcomputers were available for undergraduate student use and were used to deliver <u>some</u> nursing instruction

The majority of the nursing programs in this study had microcomputers

Administrators, faculty, staff and students had access to the computers

Non-instructional use of computers were word processing, calculation of grades, test construction, maintaining records of students, and test scoring

Top five learning activities were simulations, drill and practice, tutorials, testing and evaluation, and word processing

⁹ Buoy, Roger. "Stop Ignoring Our Young." <u>PERSONAL COMPUTING</u>, Volume 12, Number 10, October, 1988, page 290.

¹⁰ Becker, Henry Jay. "Using Computers for Instruction." <u>BYTE MAGAZINE</u>, Volume 12, Number 2, February, 1987, Pages 154-157.

The major purposes and uses of computers in nursing were to supplement and enrich learning of theory, concepts, and principles

Less than 25 per cent of the undergraduate curriculum was taught with microcomputers (for most, it was far less)

Staff nurses used computers for nursing related purposes in clinical agencies affiliated with nursing programs; students used computers at most of the affiliating agencies.¹¹

Additional uses for computers are possible and limited largely by the imagination of the faculty. Communication networks can be used to transmit instruction and other information. Tests can be administered via network and scores can be distributed through this method. Results from instruction given in this way indicate students perform <u>as well as or better</u> than the in-class counterpart. At the University of Texas Medical Branch School of Nursing at Galveston, Texas, a computer network is used by interested participants. Students can pick up private messages from instructors concerning assignments. An instructor can leave additional homework for a student or group of students. Participants can obtain information about workshops or other announcements of interest. Electronic mail service is used by

¹¹ Aiken, Eula, Project Director. <u>COMPUTER USE IN UNDERGRADUATE NURSING EDUCATION PROGRAMS: A</u> <u>STUDY OF 550 PROGRAMS</u>. Atlanta, Georgia: Southern Regional Education Board, March, 1988.

several deans.¹² It is time that we become computer-literate and use the computer creatively, as an instrument to provide students with theoretical content, decision making and judgement skills, and job-related knowledge that will prepare them for the work role of the nurse.

¹² Aiken, Eula. <u>MOVING INTO THE AGE OF COMPUTER-SUPPORTED EDUCATION</u>. Atlanta: Southern Regional Education Board, April, 1988, page 5.

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PROPOSED PLAN OF LEAVE

The purpose of my one-semester sabbatical leave was presented in my request for sabbatical leave as follows:

"Purpose: <u>To determine how computer assisted instruction and evaluation can be used in</u> the Health Science Division.¹³

I originally intended to visit a minimum of six community college and/or university nursing programs that provide computer assisted learning laboratories for both teaching-learning and evaluation of clinical laboratory and didactic content in nursing. I actually visited eleven programs.

The Board of Registered Nursing of the State of California, during its Fall, 1986, accreditation visit, recommended that the Associate Degree Nursing program consider expanding its computer-assisted instruction in nursing. Since the Health Science Division had been engaged in the implementation phase of its study-skillslearning laboratory, it appeared appropriate to focus upon the expanding role of the computer in instruction and evaluation.

Limited nursing literature regarding the utilization of computers exists. It appeared timely to explore computer usage so that, following the sabbatical, I would be able to assist in setting up the computer-assisted learning area to maximize its use for the Division. I believed that the laboratory could offer assistance in learning and evaluation of didactic content and clinical skills.

While there is an abundance of software for the health disciplines, unlike other "audiovisual materials" vendor policies preclude or limit "preview" of the material. A

See Sabbatical Proposal and Amendments in Appendix A, page 36.

few companies make available "preview" packages which provide a limited view of the content. By reviewing the published lists of software programs from National League for Nursing and other organizations, and by viewing selected software programs being used in visited facilities, I hoped to be able to prepare a list of software, rated as to applicability to the health disciplines, and thereby assist in the selection of the items on a cost-effective basis. Implementation of the knowledge gained from this sabbatical could be useful in providing students from the health disciplines with additional learning resources.

I indicated that I would begin my study by sending letters to selected colleges in California. In February, 1989, I stated that I would begin visiting the schools that seem to offer the best facilities and who are willing to cooperate and share their information. Upon completion of visits I intended to write recommendations that would be submitted to both the Division Dean and the Coordinator of Nursing, indicating the findings that appeared most appropriate to the Health Science Division setting and situation. The Sabbatical Leave would be concluded in June, 1989."¹⁴

Through the study and development of an increased level of awareness of computer use in education, and by gaining a solid knowledge base of computer software for the health professions and in education, I hoped to be better able to make an accurate assessment of our needs and to recommend ways by which we could best utilize the computer and computer software in Nursing and the Health Science Division.

¹⁴ Sabbatical Proposal Submitted December, 1987.

SUMMARY OF SABBATICAL LEAVE

Preparation for the sabbatical leave was begun in August, 1988. I mailed letters and questionnaires to Nursing Program Directors and/or skills laboratory coordinators to determine the availability of computer assisted learning laboratories in various California colleges and universities. Forty-six letters and questionnaires¹⁵ were sent to 46 colleges and universities in California. The majority of the colleges selected were located in Southern California.

Responses from personnel at the colleges and universities to whom I had sent questionnaires began arriving soon thereafter. By early September, 1988, 10 responses had been received. A total of 28 responses - (sixty-one percent) from those institutions to whom questionnaires were mailed - were received by December, 1988.

In early February, 1989, a second mailing was sent to colleges and universities that did not respond to the initial mailing. Eight additional responses were received from this mailing. This increased the final total of those responding to the questionnaire to 78 per cent. Nineteen respondents (52.78 per cent) indicated that they had a computer laboratory for nursing, while eighteen (50 per cent) indicated that computer facilities

¹⁵ See Appendix A for exhibits of letter and questionnaire, page 40.

existed on campus for use by nursing students. Some of the colleges / universities had both available.¹⁶,¹⁷ Of the total number of questionnaires received, 6 did not indicate a willingness for me to visit their facility. One respondent indicated that their program was closing and thus was not available to participate.

I made the first assessment visit to College of the Desert at Palm Desert, California. Beverly Hartnett, nursing faculty member, provided information regarding the nursing computer/learning assistance laboratory at College of the Desert. Beverly has been extensively involved with setting up the computer laboratory and selecting software resources. Interestingly, Beverly had also taken sabbatical leave in 1985, for the purpose of determining how to implement their computer Their nursing computer laboratory consists learning laboratory. of six computers, all of which are Apple II models. Each course taught in the Nursing Department provides students with lists of audiovisual and computer-assisted instruction programs related to that course's content area; if students wish these may be viewed, but this is not mandatory. According to Beverly, most faculty members feel that the majority of students do not use the programs. Many "drill and practice" programs were developed by

¹⁶ See Graphs 1 and 2 relative to responses, pages 44 and 45 of Appendix A.

¹⁷ See Survey of College Programs for Computer Facilities, page 42 of Appendix A.

Beverly Hartnett while she was on sabbatical in 1985. These are available for review by students. They were created with NurseStar Authoring System by Mosby Company. Also available for use is the NCLEX Review systems by Mosby TestStar. Many of the programs are also available in the College learning center on campus, so students can view them after 5 P.M. Directions for using the computers in the nursing laboratory are posted at each computer station so students can run programs once they have obtained them from the main "desk."

Software programs of note that are available at College of the Desert include the following:

Lippincott: Introduction to Nursing Diagnosis, Introduction to Nursing Goals, Introduction to Patient Data, Introduction to Patient Problems, Patients who need help with G.I. Functions, Patients who need help with Urinary Elimination

Mosby: Vital Signs and Physical Assessment by Potter and Perry, 1987.

MEPC: Psychiatric Nursing Simulations, Simulations in Nursing, Maternity Simulations, Pediatric Simulations

MediSims: Nursing Care of Patients with Anxiety Disorders. Surgical Patient - Preoperative Nursing Care, Postoperative Nursing care.

NURSIMS: Ohio State University: Medical Surgical Nursing-Cardiovascular crisis; Nursing Alternatives for the Young Depressed Patient - Psychiatric Nursing.

Saddleback Community College was the site of my next visit. I met with Ginny Giguere R.N., full-time Skills Laboratory Coordinator who provided information regarding the computer / learning assistance laboratory at Saddleback Community College. They have seventeen computers, 6 of which are IBM or compatible models, and 11 of which are Apple II or IIE models.

The computers are separate from other laboratory activities; they are set up in a medium-sized classroom with some other audiovisual materials, screen, and projector. The main use of the room is for the computers which are arranged along three walls; each computer has a printer attached.

An interactive video "heart assessment" module and an ACLS / arrhythmia trainer module is present. This set up consists of an IBM PS2 computer, a special touch screen color monitor, and a Pioneer Laser Disc Player slaved together.

Reportedly, the use of the computers and software material is minimal because of lack of instructor comfort with computers and non-assignment of material. Remediation is the primary use for the computers and includes assistance with problem-solving skills, simulations, and math skills. The skills lab coordinator is minimally familiar with computers; the division dean is highly knowledgeable about computers and wants faculty to use them more widely as adjuncts to the educational process. Other disciplines - Medical Technology, the Paramedic program and the EMT program use computers somewhat more than nursing. One outside faculty person does some computer classes in basic skills and operations for interested students.

Some software available at Saddleback College include the following:

Lippincott: Introduction to Behavioral Objectives; Introduction to Nursing Orders; Introduction to Nursing Diagnosis on Apple II; AORN's Sterilization and Disinfection Principles and Practices;

MEPC

Maternity Nursing Clinical Sims; Medical-Surgical Nursing Sims; Psychiatric Nursing Clinical Sims; Pediatric Nursing Sims;

MCGRAW HILL I.V. Medications for Kids - Pediatric I.V. Skills MOSBY NurseStar Mosby Systems

I visited Long Beach City College for my next selected facility. I met with Katy Reynolds, R.N., M.S.N., Associate Professor of Nursing, who provided me with information regarding the computer/learning assistance laboratory at Long Beach City College. They have eight computers, 2 of which are IBM or compatible models, 2 are Apple II or IIE models, and 4 are MacIntosh computers. Each computer has a printer available for producing hardcopy of information, test results, scores, and the like. There is a computer center on campus with Apple and IBM computers where students can go to become computer proficient; however, there are no duplicate programs from the health science computer library in this center.

The computers at Long Beach City College reside in a separate room, adjacent to the nursing/health science skills laboratory. Students from other health disciplines, - Radiology, Medical Technology, Dental Assistant Program - use the computers more than nursing students, according to Katy Reynolds. According to Katy, most instructors do not feel comfortable with computers so they do not assign programs for student viewing. Skills Lab personnel assign programs, such as math and vocabulary building, to students as needed for remediation or learning assistance. Most of the faculty members have placed examination/test

questions for all courses in computerized test banks for ease of use. Also, most faculty members have their course syllabi on computer so that updates are more easily performed. Secretaries in the Health Science Division pull specified questions from the diskettes and assemble tests for instructors. Katy Reynolds has worked extensively to try to get faculty to use computers and to assign various programs to students, but the faculty members have been very reluctant to do this. A computer course with practice was provided and faculty attended; however the reluctance remains.

Software of importance available at Long Beach City College include the following:

W.B.Saunders: Building a Medical Vocabulary - an excellent program for Apple II computer for building vocabulary, 1984;

Lippincott: Introduction to Nursing Diagnosis

College of DuPage at Glen Ellyn, Il. :

TLC General Hospital - Simulated Hospital Information System., 1988

Williams and Wilkins:

CPR Training by Computer; Arrhythmias (16805-3);

Arterial Blood Gases (16807-x); Hypertensive Management (16103-2); Hypertensive Emergencies (16801-0).

I visited California State University at Los Angeles and discussed the utilization of computers in the nursing department at this facility with Judy Pappenhausen, Professor of Nursing. Judy indicated they were doing very little with computer assisted learning at the present time except for the graduate study program, which utilizes some critical care software modules. All of the IBM-compatible computers for students are located in the main library on campus; there is no separate computer laboratory for nursing students. At California State University at Los Angeles, nursing faculty members are also beginning to use C.V.Mosby's NurseStar System to create some limited drill and practice programs, but none of this is completed and is not in use at this time. Judy invited me back this Fall, 1989, to see how far they have progressed with computer utilization.

On March 28, 1989, I visited with Sally Garcia, Director of the Learning Center for the Nursing Department at California State University at Long Beach. Sally, a multimedia specialist, provided me with information regarding the computer/learning assistance laboratory at C.S.U. Long Beach. There are ten computers, five of which are Apple II or IIE models, and five are MacIntosh computers. All of the MacIntosh computers and two

Apple II computers are in the same room as Sally's work area - a room adjacent to the learning laboratory. Two of the Apple II computers are in the learning assistance laboratory. While the use of computers is limited and there is little educational software, some uses for the computer include the following: "Pinkie," an epidemiology program, was developed by Sally Garcia in conjunction with an instructor of Public Health Nursing. It was written for the MacIntosh Computer and the program requires students to utilize public health contact investigation and problem-solving skills in determining the problems of Pinkie, who has tuberculosis. The program is based loosely on the painting of "Pinkie," who, in real life, died of tuberculosis. A program that Sally has reviewed is "RNact." It is not owned by the University but is a software program Sally would like to purchase. This software permits the entry of client data in a format that allows for planning client care and finally generates a care plan based upon input by the student. The final draft is printed for viewing by instructional staff to see if it meets standards for the stated category of patient.

Sally teaches a course in Pre-Nursing for all beginning nursing students. The course provides an overview of nursing. Students are taught about the basics of computer use. They are sent to interview nurses as part of this course and all students enter their interview findings into a database on the Macintosh Computer for later statistical/research analysis; thus, they are

taught to manipulate and view data in a variety of ways. This provides a strategy and framework for teaching critical analytical skills, as well as research framework. It introduces students to computers and allows them hands-on experience. Sally also encourages students to use the computers freely, so that all students are computer literate to an extent upon graduation.

I met with faculty member Carol Rosales and Department Chairperson Mary Lou Davis at Los Angeles Valley College for my next facility visit. The nursing computer facility has five computers, 4 of which are IBM compatible models, and one of which is an Apple II. These are located in their nursing media laboratory. Carol has been partially released for 4 hours a week to work with students and faculty in the skills laboratory. Each first-year instructor gives assignments to students which involve viewing computer. Some of the second-year faculty are not willing to use the computer as an adjunctive educational tool. An instruction sheet is provided for new students to give them the basics of operating the computers. Many and varied programs are available and are categorized on a handout. Students who do not pass a monthly calculation quiz must come to the skills laboratory and work on the modules of "Dose Calc" that relates to their problem areas. There is a main computer center on campus consisting of 35 computers. Students can view many of the nursing programs in that center, also. Students preparing to graduate in June were using a newly acquired NCLEX-RN review test

by MEPC during my visit. They seemed comfortable with the computers and acknowledge the benefit derived from the programs. Actually, more direct student implementation of computer assisted learning was observed at this facility than any others visited to date. It appears, however, that there is more involvement at this site than there is in the majority of those visited.

Some noteworthy software being used at L.A. Valley College included the following:

MEPC: NCLEX-RN Review for State Board Examination; Maternity Nursing Simulation I; Maternity Nursing Simulation II; Medical-Surgical Nursing Simulation I; Medical-Surgical Nursing Simulation II; Pediatric Nursing Simulation I; Psychiatric Nursing Simulation I; Psychiatric Nursing Simulation II

MediSim: Nursing Process I; Asepsis

Saunders: Dose Calc - used for remediating students who do not pass monthly calculation testing; consists of 11 component modules

Next, I visited the University of California at Los Angeles School of Nursing's Computer Laboratory and met with Programming Coordinator, Larry Cobb. The computer laboratory consists of 18

computers. Three of these are in one room for use by graduate students and faculty. Fifteen of the computers are in another room. A printer is available for each two computers. There is also a Laser printer and a Polaroid Slide Maker. All computers are IBM, although there are plans to purchase some MacIntosh Computers. Only a few computer assisted instruction programs exist at U.C.L.A. The most common uses for computers include word processing, database management, and statistical analysis. According to Larry, instructors assign some computer assisted instructional programs, but this is not consistent. When students come to the computer laboratory for the first time, they are shown a video tape on computer usage and then use a tutorial computer program. There is a person in the computer laboratory at all times to assist with any problems that arise with use of Students are permitted to come to the laboratory at programs. any time from 9 A.M. to 6 P.M. Faculty usually inform students of the programs that are applicable to specific content area in the course syllabus. Although other computer centers exist on campus and are available to all students, none of the software relative to the nursing program is duplicated for any other campus site.

I did learn about some interesting computer and nursing/education organizations through talking with Larry. For example, the Fuld Institute provides services and funds for undergraduate nursing education; some of the computer equipment for U.C.L.A.'s

laboratory were provided by Fuld Institute monies.¹⁶ On-line services for nursing and medicine for reference and abstract retrieval¹⁹ would be valuable adjuncts to our learning laboratory. These should be explored in the future by Mt. San Antonio College's Health Science Division.

Some of the programs that are available for use in the UCLA School of Nursing's computer laboratory include the following:

- Microtrends: Tach-Man; a computer simulation for teaching identification of and interventions for cardiac arrhythmias
- Lippincott: Skill Simulation; a program to teach, reinforce and improve performance of selected basic nursing procedures; Introduction to Nursing Diagnosis

Chang: Medication Measurements and Dosages

Mosby: Nursing Research CAI: - a complete computerassisted instruction in the principles and practice of nursing research

¹⁸ The Fuld Institute; see Appendix C, page 90, for further information on Fuld Institute services and funding.

¹⁹ See Appendix C, pages 95 and 105, for information on GRATEFUL MED - National Library of Medicine and MEDLINE OPTIONS.

Santa Monica College was the next facility visited. There, I met with Lee Williams, Skills Laboratory Coordinator for the Health Science Division. Lee reported that there is a high rate of use of the two Apple II Computers. The Apple Computers are soon to be replaced by five IBM PS/2 Model 30 computers with color monitors. Both Nursing and Respiratory Therapy students use the computers, according to Lee. She stated that at first faculty were reluctant, but now instructors in most courses make use of some computer aided instructional programs. She said that students were the best at 'selling' the benefits of computer aided instruction to faculty. After Lee mastered the computer, she presented a workshop to the faculty and has continued to work with them to make them feel more comfortable with computer aided instruction. She printed out hard copies of most of the programs that feature this capacity and gave these to the faculty to take home to study. In this way, the information presented and questions asked in the various programs was more easily assimilated by faculty. Students who come to view computer aided programs are allowed one hour blocks of time. In this way, everyone has the opportunity to use the computers.

Notable software program titles used by Santa Monica College include:

Lippincott: Calculate with Care - Medications Administration, Calculations, Drill and Practice; Microtest for

Nelson/May Obstetrical Textbook, <u>Comprehensive</u> <u>Maternity Nursing</u>

Saunders: Computer Simulations in Clinical Nursing - Mr. Jones, a Businessman with Indigestion; Mr. Richardson, a Diabetic; Mrs. Shilkraut, an Uncomfortable Terminal Patient; Mrs. Gates, an Elderly Woman Experiencing Her First Hospitalization; Mrs. Simms, a Woman Scheduled for a Hemorrhoidectomy; Mr. Merra, a Patient with Liver Disease

Zebra: Sandra Smith's Computerized Review for NCLEX -RN Nursing Boards

MEPC: Maternity Nursing Simulations; Psychiatric Nursing Simulations; Pediatric Nursing Simulations; Medical-Surgical Nursing Simulations; NCLEX-RN Review for State Boards

My next visit was with Doris Connolly, R.N., Coordinator of the Nursing Study-Learning Center at Los Angeles Harbor College. She provided me with a tour of their modern "totally integrated" facility, which houses a multimedia study skills area, classrooms, demonstration rooms, offices, and conference areas. The computer room is located at one end of the library area,

where five Apple II Computers in individual carrels are to be found . Software is at the main lobby desk. According to Doris very little use is made of the computers at this time, but there are plans to implement CAI more fully in the Fall, 1989. She indicated that remediation - primarily related to mathematical skills - is the sole use of the computers at this time. Much of the software available at Los Angeles Harbor College is the same as is available elsewhere. Much of it has been recently acquired. Doris indicated that they are adding software as the budget permits. Some of the unique software offerings include the following:

Oregon Department of Education:

Math Calculations and Conversions, Parts I and II; A Lesson on Developmental Stages; Communicable Diseases - Prevention and Safety Measures; Wound Healing, Parts I, II and III

Scholastics, Inc.: Math Shop Algebra Shop

Focus Media: Heart Abnormalities and EKGs

Career Development Software:

Nursing Leadership - the ESP Approach

El Camino College was the site of my next visit. I met with Gail Cash, nursing faculty member, who provided me with the information about their computer use. Three Apple II computers occupy one corner of the Nursing Skills Laboratory and are surrounded by other audio-visual equipment. The assignment sheets for all courses are placed in a catalog/notebook, so personnel in the skills lab can anticipate what audio-visual items will be needed during any given week. The computer software applicable to each course in listed, along with other audio-visual media. Most of the nursing courses have computer software listed as part of the assigned study material. According to Gail, very few of the health care facilities used by El Camino utilize computers in such a way that the nursing students become involved. (This is in contrast to what is reported by most other colleges.) Gail reports that about 25 per cent of the computer software usage is related to remediation for such skills as mathematics. About eighty per cent of the graduating students use the computerized TestStar (C.V. Mosby Company) State Board Review Test Bank to help them prepare for Nursing Boards. A computer center is available on campus also, but nursing students do not use it; no nursing computer software is located there. Some Respiratory Therapy software is located there, however.

An extensive listing of software is found in the catalog for this facility. Much of it is the same as that found in other

facilities. Some of the software used at El Camino includes the following:

MEPC: A Patient with Abdominal Pain - Peptic Ulcer; A Surgical Patient - Inguinal Hernia; An Unconscious Patient; A Patient in CardioPulmonary Distress -COPD/CHF

Medical Software of Idaho:

COPD/Pulmonary Emboli Simulation; MI/Pulmonary Edema Simulation; PeriOperative Pulmonary Problems Simulation

MediSim: Pharmacology; Introduction to Nursing Diagnosis; Ventilator Weaning; Drug Overdose - Pharmacology and Ventilator Care; ICP Monitoring; Congestive Heart Failure

Golden West College was my next stop. There, I visited Roberta Vander Dussen, nursing faculty member at Golden West College. Roberta, an instructor in the nursing fundamentals component of the program, has been instrumental in influencing the utilization of CAI in this facility's nursing program. The nursing/mental health laboratory is large; a separate capacious room contains the six IBM computers with room to grow. The department has received an interactive video system, but it has not been set-up as of yet. While the programs available are primarily for first semester students, their quality is excellent. The programs have, for the most part, been carefully selected by Roberta with

some faculty input. First semester students spend some four hours each week in the learning laboratory, part of which is spent review assigned computer programs. Programs are also available for students for their own remedial use, and most programs are also available at the main computer center on campus. Roberta has written, in conjunction with her son, several programs in C Language for beginning students. The include such topics as basic conversions and abbreviations for medications, applying concepts of the nursing process, and planning care for a client, which includes actual application of reviewed information to the care plan design. The student learns to extract pertinent information from the client care record in the process of data analysis. Roberta was selected by IBM to be included in an April workshop at Mt. San Antonio College, in which she redesigned one of her programs in a Windows format. The College receives an IBM PS/2 Computer for Roberta's work.

Some software in use at Golden West that is notable includes: DelMar Publications:

A Unified Approach to Clinical Calculations Medware: ABG's

Computerized Educational Systems:

Eliminating Medication Errors; Preventing Patient Falls; How to Use CAI; Type II Diabetes; Universal Precautions; Documentation - Doing the "Write" Thing

This concluded my visits to college and university facilities for purposes of this sabbatical leave. I had contacted three other colleges in the Southern California area, but I had experienced difficulty obtaining a firm commitment from anyone at these facilities to meet with me.

CONCLUSIONS

It is apparent from this sabbatical study that much more than computers and software is necessary for the successful implementation of a computer-assisted learning / evaluation laboratory. We must be willing to expend the time and effort necessary to ensure that the laboratory is a success and a genuine help to students. We cannot ignore the impact of the computer in hospitals and health care facilities anymore than we can disregard its impact upon the educational scene. Students must develop computer skills prior to graduating; their employment requirements include these abilities. As faculty members, we must develop our computer literacy, and we must be involved in the selection of appropriate software for our particular areas of expertise. We may need to request that administration provide some release time to faculty so the members can become computer literate - or at least computer comfortable - and so that we will have time to review software for our respective 'disciplines' within the health sciences. Otherwise, it is a waste of money, time and effort to invest in this kind of equipment and software.

During this sabbatical, I often felt frustrated with attempting to contact personnel who had <u>some</u> knowledge of computers and software in the health-science disciplines. Except for a few such persons, most of the facilities had no one with a solid

knowledge base - in terms of computers and their potential as adjuncts to the educational process. Permissive use of software for remediation and for 'selected' students - or worse, no predetermined use of hardware or software - does not seem to be a valid, cost-effective means to incorporate computer assisted instruction. This, in reality, does not involve and include the computer effectively; rather it leaves it on the 'fringe' of the educational arena. What we need to ask ourselves is, "What is being done - what actions are being taken - to ensure that students are using software programs that will enhance their learning?" Unless faculty know the content and use of programs, and unless all students are using the programs, this becomes a fruitless effort on the part of faculty and the educational institution. There are other items that can be purchased if faculty do not feel committed to computers as assistive to the educational process.

I was surprised and dismayed to find virtually no program utilizing the computer as an evaluation tool for any skill or area of competence. Eventhough ten facilities responding to the initial survey had indicated that the computer laboratory was used in evaluating, in fact this was not the case - at least in six facilities I visited that had indicated such use²⁰. I had hoped to find <u>some</u> use of the computer for this in some

²⁰ See Survey of College Programs for Computer Facilities, page 42 of Appendix A.

facilities, so that I could determine what we at Mt. San Antonio College can do to objectify some of the evaluation of clinical skills. I suppose that it must be someone else - or I at a later date - that will determine how we can perform certain evaluations with the aid of the computer!

VALUE OF SABBATICAL LEAVE

I believe that I have gained a great deal, both personally and professionally, from this sabbatical leave experience. I have been interested in computers for several years, having purchased my first computer in 1980 and having taught myself to use it. I am now enjoying my third computer, and the first one I owned seems a distant and faded memory. It is obvious that computers have changed - in terms of sophistication - both in hardware and in the software they are able to run. I have long believed that the computer has such an important role in education and it could be extremely assistive in nursing education by helping students gain insight into multiple situations - through simulations that they might one day encounter, thereby enabling them to experience anticipatory problem solving incidents.

I appreciate the opportunity I have had to explore this special area of interest for me. I return to the College with some additional ideas in terms of how we can use the computer in the health science disciplines. I have had the opportunity to review some significantly beneficial software that I believe can benefit our students²¹,²², and I will be asking for the purchase of some of these programs as financial resources permit.

²¹ See Software Data Summary for Reviewed Software, page 49 in Appendix B.

²² See Appendix B, pages 51 to 87, for evaluation of reviewed software.

I also am grateful for the opportunity to 'get away' from the many demands of the teacher in the health and helping professions. For the health educator, I believe that the stress of teaching is compounded by the stress of dealing with the ongoing problems and realities of individuals with health problems and illness, as well as the many problems in health care facilities at this point in time. I think that everyone who teaches in this kind of discipline should be permitted some time away from it, in order to regain the appropriate, healthy perspective of life and living.

APPENDIX A - SABBATICAL INFORMATION

Proposal for Sabbatical Leave	page	36
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Survey of College Programs for Computer Facilities	page	42
Graph 1 - Responses to Questionnaire as Percents	page	44
Graph 2 - Responses to Questionnaire-Numeric Value	page	45

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- Sabbatical Proposal by Mike L. Gilliam, R.N., M.S.N., CCRN, -Submitted December, 1987.

Sabbatical Application - Proposal for Spring Semester, 1989 School Year: 1988-89

Name of Applicant: Mike L. Gilliam

Purpose: To determine how computer assisted instruction and evaluation can be used in the Health Science Division.

I intend to visit a minimum of six community college and/or university nursing programs that provide computer assisted learning laboratories for both teaching-learning and evaluation of clinical laboratory and didactic content in nursing.

The Board of Registered Nursing of the State of California, during its Fall, 1986, accreditation visit, recommended that the Associate Degree Nursing program consider more computer-assisted instruction in nursing. Since the Health Science Division is the implementation phase of a skills study-learning laboratory area, it seems appropriate to focus upon the expanding role of the computer in instruction and evaluation.

There is little in the nursing literature regarding the utilization of services of this nature. It seems timely to explore this area so that, following the sabbatical, I can assist in setting up the computerassisted learning area to maximize its use for the Division. I believe that the laboratory will be able to offer assistance in learning and evaluation of didactic content and clinical skills.

While there is an abundance of software for the health disciplines, unlike other "audiovisual materials" vendor policies preclude "preview" of the material. A few companies make available "preview" packages which provide a limited idea of the content. By reviewing the published lists of software programs from National League for Nursing and other organizations, and by viewing software programs being used in visited facilities, I will be able to prepare a list of software, rate it in terms of widest applicability to the health disciplines, and thereby assist in the selection of the items on a cost-effective basis. Implementation of the knowledge gained from this sabbatical will provide students from the disciplines in the Health Science Division with additional learning resources.

I shall begin by sending letters to selected colleges in California (see enclosed). In February, 1989, I shall begin visiting the schools that seem to offer the best facilities and who are willing to cooperate and share their information. Upon completion of visits I will write recommendations that will be submitted to both the Division Dean and Coordinator of Nursing, indicating the findings seem most appropriate to our setting and situation. The Sabbatical Leave will conclude in June, 1989.

If additional information is required please contact me.

Sincerely,

Mike L. Gilliam, R.N., M.S.N., CCRN Instructor, A.D.N. Program Mt. San Antonio College

- 1. I limited my proposal to a minimum of six colleges because I do not believe that many nursing programs are currently providing extensive computer assisted instruction and evaluation. At the October meeting of the College Salary and Leaves Committee, you advised that a realistic goal should be established. Six programs or more will be visited, depending upon what I find from my initial survey. I do not see merit in visiting programs that offer no more than we currently offer.
- 2. I cannot provide a list of colleges/universities I plan to visit, since I plan to visit those that indicate, as specified in my proposed letter, the presence of a computer assisted learning/evaluation health discipline laboratory and a willingness to provide the time for me to visit the facility. I will survey the majority of Community College Nursing Programs and selected University Nursing Programs in the State in evaluating schools for my proposed visits.
- 3. See attached form. I am evaluating the software programs in terms of broadest application to the health science disciplines, among other criteria. Computation skills related to medications administration, for example, is applicable to most health discipline programs in the Health Science Division.
- 4. Information/data gathered will be transmitted to colleagues in written report form summarizing the essential points of the software programs and their areas of applicability to students in health disciplines. It is hoped that an interdisciplinary committee would then be formed to determine which programs to purchase for the division.
- 5. Colleges and universities whose Nursing Programs provide computer assisted learning and evaluation directly related to the practice of nursing and/or health care will be selected, if the agency indicates a willingness to assist me in understanding their objectives related to computer-assisted instruction and evaluation and how these are being implemented. Those using both evaluation as well as instructional programs will be selected first, since I would especially like to see how nursing programs are conducting clinical evaluations using computer software.
- 6. This is not a research proposal. My purpose is to determine, by gathering information, how other nursing programs have implemented computer-assisted instructional and evaluation, in order to better determine how we, at Mt. SAC, can provide these kinds of services. I will collect information to determine exactly how, and to what extent, other programs are utilizing the computer instructionally and as an evaluation tool.
- 7. Not applicable. Information will be written for submission to this Committee and to the Division Dean, Coordinator of Nursing and Faculty in the Health Sciences Division.

Sincerely,

Mike L. Gilliam, R.N., M.S.N., CCRN Instructor, A.D.N. Program MT. SAN ANTONIO COLLEGE Salary and Leaves Committee

MEMORANDUM

TO: Mike Gilliam

FROM: Salary and Leaves Committee

Barbara Crane Gil Dominguez Katie Gerecke Walt Mix Maurice Moore Walt Collins (Chairperson)

DATE: December 15, 1987

SUBJECT: PRELIMINARY EVALUATION OF SABBATICAL APPLICATION

The Salary and Leaves Committee has completed the preliminary evaluation of sabbatical applications for the 1988-89 school year. The evaluations are based upon the criteria as listed in the informational packets provided to sabbatical applicants and as described in the sabbatical orientation programs.

After careful and extensive review of all applications, the Salary and Leaves Committee has evaluated your application as follows:

Acceptable for consideration

X Acceptable with information

Questionable

Unacceptable

Please review the sabbatical information packet for the definitions of the above rating scale.

Based upon the above noted rating, the Salary and Leaves Committee requests the following revisions be made before the Committee makes its final evaluation of your application:

RECOMMENDATIONS FOR REVISION OF SABBATICAL APPLICATION

- 1. Please explain why you limited the study colleges to six (6)? Add additional colleges to expand your project if appropriate.
- 2. Provide a specific list of colleges/universities you intend to visit.
- 3. What criteria will you use to analyze and rate the software programs to evaluate their applicability to MSAC's health instruction programs? Provide list of sample criteria.

Salary and Leaves Committee Mike Gilliam Preliminary Evaluation of Sabbatical Application December 15, 1987

- ge -2-P
 - State specifically how you will transport the data learned to 4. students and colleages.
 - What criteria are you using to select the colleges/universities to be 5. visited?
 - Provide additional comments explaining the amount of research to be 6. conducted.
 - 7. How will you record/document your research?

THANK YOU!

If any clarification of the above is needed, please feel free to contact any member of the Salary and Leaves Committee for assistance. If you believe necessary, a special meeting of the Committee will be scheduled in order for you to meet with the Committee.

IN ORDER TO MEET CONTRACTUAL DEADLINES, FOR THE IMPORTANT: PROCESSING OF SABBATICAL APPLICATIONS, THE FOLLOWING PROCEDURES ARE REQUIRED:

- 1. All revised reports must be submitted to the Personnel Office NO LATER THAN WEDNESDAY, JANUARY 8, 1987. The final evaluation of applications shall be based upon the information and proposals submitted at this time. The decision of the Committee regarding revised applications submitted on this date are final.
- 2. All applicants are advised to provide a response to all recommendations made by the Committee. The recommendations are intended to assist you in submitting a successful application.
- The current collective bargaining agreement requires the Salary and 3. Leaves Committee to rank the applications and to submit its final recommendations to the Board of Trustees for action at the February 1988 Board meeting.
- 4. You will be notified by the Salary and Leaves Committee regarding the status of your application by February 8, 1988.

The Salary and Leaves Committee thanks you for your cooperation and wishes you success in your professional endeavor.

WWC/omp

S/L Committee

Name of College/University:_____ Address:______City:_____Zip:____ Name of Computer Skills Laboratory Coordinator: Name of person completing this form, if different from above: Please Check all that apply: We have a computer assisted learning/evaluation laboratory. ____ We have a computer assisted learning laboratory only, but do no evaluations there. _____ We have a computer assisted evaluation laboratory but have no learning assistance. We have a laboratory or area available on campus where our students may use computers for testing, assessment and/or learning. ____ We will help you by arranging for you to visit our facility and showing you how we have set up our laboratory. ____ We do not have a computer assisted evaluation or learning assistance laboratory.

Additional Comments:

Please use the enclosed envelope for returning this form. Thank you for your assistance and prompt response.

Sincerely,

Mike L. Gilliam, R.N., M.S.N., CCRN Instructor, A.D.N. Program Mt. San Antonio College

Mt. San Antonio College 1100 North Grand Avenue Walnut, California 91789

College

Attention: Director, Health Occupations or Coordinator of Nursing or Director of Nursing Skills Laboratory

TO:

I am planning a sabbatical leave in January, 1989, the purpose of which is to determine how other colleges and universities in the State are utilizing computers in instruction and evaluation of both theory and clinical content in Nursing and/or related health disciplines.

Please assist me by completing the enclosed form and returning it to me.

I would like to know what you are doing in terms of computer assisted learning and evaluation and <u>would like to visit your</u> <u>facility</u> to view your setup.

Please advise me of the possibility of my visiting your facility. I will make a specific appointment with you as January, 1989, approaches.

Sincerely,

Mike L. Gilliam, R.N., M.S.N., CCRN Instructor, A.D.N. Program Mt. San Antonio College

Survey of College Programs for Computer Facilities

The following table lists all of the Colleges/Universities to which the survey for determining the availability of computer assisted instructional facilities/laboratories was sent. Information was extracted from the survey forms and summarized for analysis purposes.

COLLEGE	Nsg Lab Present	Nsg Lab Absent			Non-Nsg Lab Available	Visit Potential	
Azusa Pacific University	0	1	0	0	0	0	
Bakersfield College	0	1	0	0	0	0	
Biola University	0	1	0	0	1	0	
Chaffey College	1	0	0	0	0	1	
Chapman College	0	1	0	0	0	0	
College of the Canyons	0	1	0	0	1	0	
College of the Desert	1	0	1	1	0	1	
Cerritos College	0	0	1	ō	1	1	
Compton College	0	1	ō	0	1	0	
CSU Bakersfield	1	ō	0	0	1	1	
CSU Long Beach	1	Ō	0	0	1	1	
CSU Los Angeles	ō	ĩ	ō	õ	ī	ĩ	
Cuesta College	ì	õ	õ	0	ī	1	
El Camino College	î	õ	1	0	ī	1	
E.L.A.College	ō	Õ	ō	Ő	ī	ō	
Glendale College	õ	Õ	õ	ŏ	1	õ	
Golden West College	1	0	ő	1	ĩ	1	
Imperial Valley College	1	Õ	1	Ō	0	1	
L.A. Harbor College	ī	ŏ	ō	1	1	1	
L.A. Trade Tech College	ō	õ	õ	ō	ī	ō	
Loma Linda University	õ	1	õ	õ	ō	õ	
Long Beach City College	1	õ	õ	1	1	1	
L.A. Pierce College	ō	1	õ	. 0	ō	ō	
L.A. Valley College	1	ō	1	0	ĩ	1	
Noorpark College	1	õ	õ	1	î	ō	
Nt. St Mary's	ō	1	õ	ō	ō	0	
Pasadena City College	õ	ī	õ	õ	õ	õ	
Riverside Comm College	1	ô	1	Ő	õ	1	
Saddleback College	1	ŏ	1	õ	ŏ	1	
San Francisco City College		ĩ	ō	õ	õ	ō	
San Francisco State	1	Ō	1	1	1	ĩ	
Santa Barbara City College		1	0	ò	0	0	
St. Monica City College	1	0	1	1	õ	1	
UCLA	1	0	1	0	0	1	
U of San Francisco	1	0 0	0	0	0	1	
Ventura College	1	0	0	0	Ö	1	
AFFIRMATIVE RESPONSES:	19	13	10	7	18	20	
PERCENTAGES:	52.78	36.11			50	14 (AV	

LEGEND: 1 = YES or TRUE

0 = NO or FALSE

Survey of College Programs for Computer Facilities

Colleges Failing to Respond to First or Second Survey-Mailing:

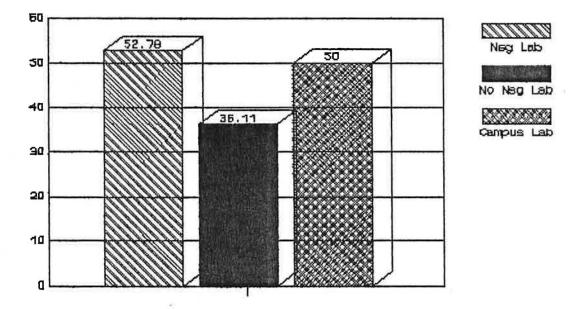
Antelope Valley College of San Mateo CSU Chico CSU Dominquez Hills CSU Fresno Cypress College Rancho Santiago College Rio Hondo College San Bernardino Valley College University of Southern California / L.A.C. Medical Center West Los Angeles College

> LEGEND: 1 = YES or TRUE 0 = NO or FALSE

Graph 1 - Responses to Questionnaire as Percents

Responses to Inquiry

All Nursing Programs

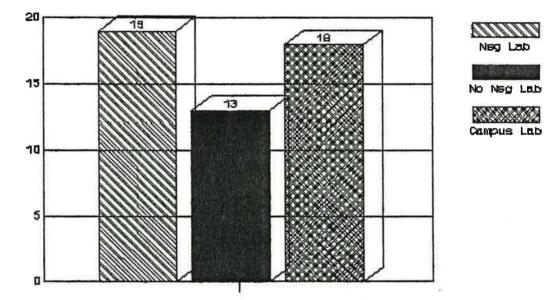


Number of Responses as Percents

1 Graph 1 - Programs with Nursing Computer Laboratories [Nsg Lab], with no nursing laboratory [No Nsg Lab], and with Campus Computer Facilities [Campus Lab]. Based upon total number of thirty-six responses.

GRAPH 2 - Responses to Questionnaire-Numeric Value

Responses to Inquiry All Nursing Programs



Responses with/without Labs

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2 Graph 2 - Programs with Nursing Computer Laboratories [Nsg Lab], with no nursing computer laboratory [No Nsg Lab], and those with Campus Computer Facilities [Campus Lab]. Based upon thirty-six responses.

APPENDIX B - SOFTWARE INFORMATION

Software Criteria Evaluation Form	page	47
Software Data Summary for Reviewed Software	page	49
Software Review - ABG's	page	51
Software Review - Arterial Blood Gas Interpretation /		
Oxygen Transport	page	53
Software Review - Asthma Simulation	page	55
Software Review - Body Mechanics	page	57
Software Review - Cardiovascular Physical Examination	page	59
Software Review - Clinical Calculations	page	61
Software Review - Clinical Simulations in Nursing	page	63
Software Review - Complications of I.V. Therapy	page	65
Software Review - Eliminating Medication Errors	page	67
Software Review - Heart Abnormalities and the EKG	page	69
Software Review - Hemodynamics I	page	71
Software Review - Hemodynamics III	page	73
Software Review - How to Use CAI	page	75
Software Review - Managing the Side Effects		
of Chemotherapy	page	77
Software Review - NCLEX Review for State Boards	page	79
Software Review - Preventing Patient Falls	page	81
Software Review - Type II Diabetes	page	83
Software Review - Universal Precautions	page	85
Software Review - Vital Signs and Physical Assessment	page	87

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	Software Review Form Summary Review						
	Program:						
)							
	Publisher: Year: Cost: Operates on: Apple IBM/MS-DOS Compatible Other (specify)						
	Format: 5 1/4" diskette 3 1/2" diskette No. of diskettes						
	Memory Required:						
	Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify)						
	Program Summary Description:						
	Appropriateness for Students: Exlt Good Fair Poor						
	Appropriate for adult learner:						
	Evaulation Criteria:						
	Type of Program:						
	Drill/PracticeSimulationEvaulationDemonstrationGameOther(specify)TutorialProblem solving						
	Design:						
	Yes No N/A						

1

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	Educ	ational		:
	Yes	No	N/A	
)				Instructional objectives are clearly stated.
				Program is compatible with other education materials.
				Content is factual.
				Minorities are represented.
				Emphasizes thinking.
				Emphasizes application of skills to actual situations.
		which Pr	ogram	s/Disciplines in Division would this software be useful? :
	Yes	No	N/A	
				Respiratory Therapy
				Radiology
				Mental Health
				Associate Degree Nursing
				Associate Degree Nursing Vocational Nursing EMT
				Associate Degree Nursing Vocational Nursing

Skills Development: Name skill or skills enhanced by this program._____

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Software Data Summary for Reviewed Software

Name of Program	Type of Software**	Computer Type	Applicable Health Disciplines	Comments
Type II Diabetes	T, G	MS/PC DOS	MH, ADN, VN, EMT, PM	Assessment and intervention of diabetic client is main focus; relevant for wide variety of health care professions.
Preventing Patient Falls	T, S, G, PS	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Falls are problem for all health care workers and assessing client potential for falling can help prevent these injuries.
Clinical Calcula- tions	DP, T	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Calculations of drugs/solutions is always a problem area for health discipline students. Intravenous drugs are included.
How to Use CAI	DEMO, T, G	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Teaches all individuals how to use the computer keyboard and other computer components. Useful for all students and teachers, also.
ABG's	demo, T, S	MS/PC DOS	RT, MH, ADN, EMT, PM	Teachers concepts of blood gas analysis; presented in simula- tion format with feedback of analysis.
Clinical Simula- tions in Nursing	DP, S, E, PS	MS/PC DOS	ADN, MH	Psychiatric section might be useful for Mental Health; all areas of nursing are included.
Universal Pre- cautions	T, S, G, PS, E	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Highly recommended for its applicability to current crisis centering on AIDS epidemic. Teaches how to protect self.
Complications of IV Therapy	DP, T, E	MS/PC DOS	RAD, MH, ADN, EMT, PM	Instructions related to IV therapy and common complications. How to avoid problems is emphasis. Early recognition of problems is stressed.
Eliminating Medi- cation Errors	T, S, G, PS, E	MS/PC DOS	MH, ADN, VN, PM, RT	Illustrates, in game strategy, how errors occur and how they can be prevented. Nurse administers meds to group of clients.
Body Mechanics	DP, T, G, E	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Injury to self and others is a problem for all health care workers and this programs animation helps drive some points home. Lifting, moving, turning objects/clients, force, balance, resistance are emphasized.

** SOFTWARE TYPES: DP=Drill/Practice; DEMO=Demonstration; T=Tutorial; S=Simulation; G=Games; PS=Problem-solving; E=Evaluation -- APPLICABLE HEALTH DISCIPLINES: RT=Respiratory Therapy; RAD=Radiology; MH=Mental Health; ADN=Associate Degree Nursing; EMT=Emergency Medical Technology; PM=Paramedic Program

Name of rrogram	Type of Software**	Computer Type	Applicable Health Dis-plines	Comments
Heart Abnormalities and the EKG	Т, G, E	MS/PC DOS Apple	RT, ADN, EMT, PM	Assists in recognizing many common EKG abnormalities. Graphics and animation are used to illustration dynamic EKG recognition.
Vital Signs and Physical Assessment	DP, D, T	MS/PC DOȘ Apple	RT, RAD, MH, ADN, VN, EMT, PM	Review of basic skills of assessing vital signs. Is companion to textbook by Potter and Perry (CV Mosby Text).
Asthma Simulation	S, PS, E	MS/PC DOS	RT, ADN, PM	Provides analysis of decision making skills; feedback gives reason for correct decision/information areas. Is medical model but very well done.
Arterial Blood Gas Interpretation/ 02 Transport		MS/PC DOS	RT, ADN, PM	Provides addition skill in area of ABG analysis; good feedback is given to learner regarding correct responses.
Hemodynamics I	DP, T, S, E	MS/PC DOS	RT, RAD, MH, ADN, VN, EMT, PM	Excellent review of anatomy and physiology of heart. Assists in understanding of assessment of client.
Hemodynamics III	DP, T, S, E	MS/PC DOS	RT, ADN, EMT, PM	Program emphasizes assessments of hemodynamic status, including pressure monitoring, PA monitoring, cardiac output measurements.
Cardiovascular Physical Examination	DP, D, T, S, E	MS/PC DOS & Laser Disc, TouchScreen Monitor	RT, ADN, MH, EMT, PM	Very costly but excellent program that illustrates physical assessment of cardiovascular system. Sound is also used, along with extensive animation.
NCLEX Review for State Boards	E	MS/PC DOS Apple	ADN	Review and statistical analysis of student progress with 400 questions in NCLEX format. Gives information relative to strengths and weak areas; keeps record of progress during reassessments of performance. EXCELLENT and BADLY NEEDED.
Managing the Side Effects of Chemotherapy	DP, D, T, E	MS/PC DOS	ADN	Demonstrates characteristics of cancer cells and how chemo- therapeutics help control growth. Content is basic, but may be more applicable to graduates.

** SOFTWARE TYPES: DP=Drill/Practice; DEMO=Demonstration; T=Tutorial; S=Simulation; G=Games; PS=Problem-solving; E=Evaluation -- APPLICABLE HEALTH DISCIPLINES: RT=Respiratory Therapy; RAD=Radiology; MH=Mental Health; ADN=Associate Degree Nursing; EMT=Emergency Medical Technology; PM=Paramedic Program

51 Software Review Form

Summary	r F	2e	vi	ew

Program:ABG's
Publisher: Med Ware Year: 87 Cost: Operates on: Apple IBM/MS-DOS Compatible x Other (specify)
Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>No. of diskettes 1</u>
Memory Required: 256
Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify) Program Summary Description: <u>Teaches concepts of blood gases and</u> presents simulations for analysis with feedback
Appropriateness for Students: <u>Exlt Good Fair Poor</u>
Appropriate for adult learner: x Free of Cultural Bias: x Will Fit into Curriculum: x Instructional design quality: x
Evaulation Criteria:
Type of Program:
Drill/PracticexSimulationEvaulationxDemonstrationGameOther(specify)xTutorialProblem solving
Design:
YesNoN/A_x

<u>Educa</u>	tional	value	
Yes	No	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x	. <u> </u>		Content is factual.
		x	Minorities are represented.
x			Emphasizes thinking.
x _x_			Emphasizes application of skills to actual situations.
For w	hich Pr	ogram	S/Disciplines in Division would this software be useful? :
Yes	No	N/A	
x	1	C.	Respiratory Therapy
			Radiology
			Mental Health
 x			Associate Degree Nursing
			Vocational Nursing

Additional Comments:

X

x

Relevant for wide variety of students.

EMT

ParaMedic

Skills Development: Name skill or skills enhanced by this program.____

Evaluation of performance and/or cognition to be performed by this program, if applicable. Knowledge of blood gases and application to client assessment and intervention.

Software Review Form

Summary	Review

Program: Arterial Blood Gas Interpretation/Oxygen Transport

tion with test questions and feedback

Appropriateness for Students:

Exlt Good Fair Poor

-

___X_ ____

X

X____

x ___

Appropriate for adult learner: Free of Cultural Bias: Will Fit into Curriculum: Instructional design quality:

Evaulation Criteria:

Type of Program:

x	Drill/Practice	 Simulation	 Evaulation
	Demonstration	 Game	 Other(specify)
X_	Tutorial	 Problem solving	

Design:

Yes	No	N/A	
x			Screen display is easy to read.
x	·		User can easily understand directions.
x			Program is munu driven.
x _x_	·	·	User can re-try or correct entries.
x			User can eventually get correct answer.
x		-	User can exit program without completion.
x			Feedback is frequent, varied, immediate.
x			Motivators are appropriate for adult learner.
	x		Uses graphics and/or animation.
x			Allows for active student involvement.
x			Holds interest and attention of user.
x	•		Documentation is easy to understand.
x			Program branches to student level.
x	-		Program utilizes student recordkeeper.

Educ	cational	value	
Yes	No	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
x		_x_	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
	The second s		
For	which P:	rograms	S/Disciplines in Division would this software be useful? :
Yes	No	N/A	
37		17.6	Posniratory Mhorany

X		Respiratory Therapy
		Radiology
	<u> </u>	Mental Health
x		Associate Degree Nursing
		Vocational Nursing
		EMT
x		ParaMedic

Additional Comments: ______ Applicable to several of our program.

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Skills Development: Name skill or skills enhanced by this program._____ Analysis and intervention skills in blood gas problems.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

55 Software Review Form

Summary Review

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-	Program:Asthma Simulation							
	Publisher: Diamond Software Year: Cost: 199.00 Operates on: Apple IBM/MS-DOS Compatible x Other (specify)							
	Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>x</u> No. of diskettes							
	Memory Required: <u>128</u>							
	Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify)							
	Program Summary Description: <u>Simulation which presents client with</u> asthma in emergency room for decision making skills in terms of inter- ventions appropriate for client's history. Medical model but good for second level RN student and respiratory therapy student.							
	Appropriateness for Students: Exlt Good Fair Poor							
	Appropriate for adult learner: x							
	Evaulation Criteria:							
	Type of Program:							
)	Drill/Practice_x Simulation_x EvaulationDemonstration Game Other(specify)Tutorial_x Problem solving							
	<u>Design</u> :							
	YesNoN/A_x							

Yes	No	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
x		_x_	Minorities are represented.
			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? :

res	NO	N/A	
x			Respiratory Therapy
		-	Radiology
	<u> </u>	-	Mental Health
X			Associate Degree Nursing
		<u> </u>	Vocational Nursing
			EMT
X			ParaMedic

Additional Comments: <u>Provides analysis of decision making abilities</u> and information gathering skills. Feedback gives reasons for correct decisions/information areas.

Skills Development: Name skill or skills enhanced by this program._____ <u>Analysis and intervention in acute respiratory distress. Decision-</u> making skills.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Software Review Form					
Program: Body Mechanics					
Publisher:Computerized Educational SysYear: 1989Cost: 195.00Operates on:AppleIBM/MS-DOS CompatiblexOther (specify)					
Format: 5 1/4" diskette 3 1/2" diskettex No. of diskettes _1					
Memory Required: 256					
Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify) Program Summary Description: <u>Instruction related to preventing injury</u> to self and others when lifting, moving objects and clients. Emphasis is on prevention of problems, balance, force, fulcrum, resistance.					
Appropriateness for Students: <u>Exlt Good Fair Poor</u>					
Appropriate for adult learner: x					
Evaulation Criteria:					
Type of Program:					
x Drill/Practice Simulationx_ Evaulation Demonstration Game Other(specify) _x Tutorial Problem solving					
Design:					
YesNoN/A_x					

) • •

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Educa	ational	value	:
Yes	No	N/A	3
)_x_			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
X			Content is factual.
	······	_x_	Content is factual. Minorities are represented.
x_			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
For	which Dr	oaram	s/Disciplines in Division would this software be useful? :
the second se	the second s		s/hisciplines in Division would chip soleware be useful:
Yes	No	N/A	
			Respiratory Therapy
x			Radiology
x			Mental Health
X			Associate Degree Nursing
			Vocational Nursing
x			EMT
x			ParaMedic
1			
Addi	tional C	commen	ts: <u>Good animation.</u>

Skills Development: Name skill or skills enhanced by this program.______ Knowledge of preventing injury in self and others.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Safety with respect to preventing injury to self and others can be assessed by performance following observation of program.

8

Educ	ational	value	
Yes	No	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x	1		Content is factual.
x		_X_	Minorities are represented.
x			Emphasizes thinking.
x	-		Emphasizes application of skills to actual situations.
For	which P	rograms	s/Disciplines in Division would this software be useful? :
Vec	No	N/A	

100		
x		 Respiratory Therapy
		 Radiology
x		 Mental Health
x		 Associate Degree Nursing
x		 Vocational Nursing
x		 EMT
x	<u> </u>	 ParaMedic

Additional Comments: Very costly because of required special laserdisc and touch screen; could get funding assistance from FULD Institute.

Skills Development: Name skill or skills enhanced by this program._____ Physical assessment, auscultation, inspection of heart and vessels

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Assessment of thorax, heart, blood vessels

Software Review Form						
Summary Review						
Program: <u>Clinical Calculations</u>						
Publisher: DelMar Year: 86 Cost: Operates on: Apple IBM/MS-DOS Compatible x Other (specify)						
Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>No. of diskettes 1</u>						
Memory Required: <u>256</u>						
Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify) Program Summary Description: <u>Very well done program with drill/practice</u> and tutorial relative to drug calculations; includes intravenous						
Appropriateness for Students: Exlt Good Fair Poor						
Appropriate for adult learner: x Free of Cultural Bias: x Will Fit into Curriculum: x Instructional design quality: x						
Evaulation Criteria:						
Type of Program:						
_x_Drill/PracticeSimulationEvaulationDemonstrationGameOther(specify)_x_TutorialProblem solvingOther(specify)						
Design:						
YesNoN/A_x						

Educat	ional	value	•
Yes	No	N/A	
x _x_			Instructional objectives are clearly stated. Program is compatible with other education materials.
x			Content is factual.
x		_x_	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
For wh	nich Pr		s/Disciplines in Division would this software be useful? :
Yes	No	N/A	
x			Respiratory Therapy
x			Radiology
x			Mental Health
x			Associate Degree Nursing
x			Vocational Nursing

____ ParaMedic

Additional Comments: _

Skills Development: Name skill or skills enhanced by this program._____

Evaluation of performance and/or cognition to be performed by this program, if applicable. Demonstrate the ability to calculation medications/solutions/dosages.

Software Review Form			
Summary Review			
Program: <u>Clinical Simulations in Nursing I</u>			
Publisher: MEPC Year: 86 Cost: 1500.00 Operates on: Apple _xIBM/MS-DOS Compatible _x Other (specify)			
Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>No. of diskettes <u>16</u></u>			
Memory Required: <u>256</u>			
Peripherals Required: Printer <u>x</u> Second disk drive <u>Mouse</u> Joystick <u>Other</u> (Specify)			
Program Summary Description: <u>Review with simulations and testing of</u> grasp of concepts; encompasses OB, Peds, Med-Surg and Psychiatric Nsg			
Appropriateness for Students: Exlt Good Fair Poor			
Appropriate for adult learner: _x			
Evaulation Criteria:			
Type of Program:			
_x_Drill/Practice_x_Simulation_x_EvaulationDemonstrationGameOther(specify)TutorialProblem solving			
Design:			
Yes No N/A _x Screen display is easy to read. _x User can easily understand directions. _x Program is munu driven. _x User can re-try or correct entries. _x User can eventually get correct answer. _x User can exit program without completion. _x Feedback is frequent, varied, immediate. _x Motivators are appropriate for adult learner. _x Uses graphics and/or animation. _x Allows for active student involvement. _x Holds interest and attention of user. _x Documentation is easy to understand. _x Program branches to student level. _x Program utilizes student recordkeeper.			

Educ	cational	value		
Yes	No	N/A		
)_x_ _x_ _x_ _x_ _x_	-		Instructional objectives are clearly stated.	
x	(<u></u>		Program is compatible with other education materials.	
x			Content is factual.	
		x	Minorities are represented.	
x			Emphasizes thinking.	
x			Emphasizes application of skills to actual situations.	
For which Programs/Disciplines in Division would this software be useful? :				
Yes	No	N/A		
			Respiratory Therapy	
 			Radiology	
			Mental Health	
x			Associate Degree Nursing	
			Vocational Nursing	

ParaMedic

Additional Comments:

Psychiatric Section might be useful for Psych. Tech Program

Skills Development: Name skill or skills enhanced by this program.____

Assessment, analysis, planning, intervention for all nursing's major

clinical areas. Evaluation of performance and/or cognition to be performed by this program, if applicable.

Clinical Analysis of various situations; problem solving abilities

Software Review Form Summary Review Program: <u>Complications of I.V. Therapy</u> Publisher: Computerized Educational Sys Year: 1989 Cost: 195.00 Operates on: Apple ____ IBM/MS-DOS Compatible _x_ Other (specify) _____ Format: 5 1/4" diskette _____ 3 1/2" diskette ____ No. of diskettes _1___ Memory Required: 256_ Peripherals Required: Printer _____ Second disk drive ____ Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: Instruction related to intravenous therapy and common as well as some uncommon complications. How to avoid causing problems is emphasized. Early recognition of problems and the intervention is stressed. Appropriateness for Students: Exlt Good Fair Poor

 Appropriate for adult learner:
 __x_ _____

 Free of Cultural Bias:
 __x_ _____

 Will Fit into Curriculum:
 __x_ _____

 Instructional design quality:
 __x_ _____

 Evaulation Criteria: Type of Program: _____ Simulation _____ Evaulation _x__ Drill/Practice ____ Demonstration ____ Game _____ Other(specify) _x__ Tutorial _____ Problem solving Design: Yes NO N/A _x_ _x_ Screen display is easy to read. User can easily understand directions. Program is munu driven. _x_ x_ ___ User can re-try or correct entries. _ _____ User can eventually get correct answer. _X_ __X__ __X__ __X__ __X__ __X__ __X__ User can exit program without completion. Feedback is frequent, varied, immediate. Motivators are appropriate for adult learner.

 Image: Strequent, varied, immediate.

 Motivators are appropriate for adult learner.

 Uses graphics and/or animation.

 Allows for active student involvement.

 Holds interest and attention of user.

 Documentation is easy to understand.

 Program branches to student level

x _X_ Program branches to student level. _x_ _x_

Program utilizes student recordkeeper.

Educational value:

Yes	NO	N/A	
x			Instructional objectives are clearly stated.
x		<u></u>	Program is compatible with other education materials.
x			Content is factual.
<u> </u>		_x_	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? : Yes No N/A

	[_] [,]	Respiratory Therapy
x		Radiology
x		Mental Health
x		Associate Degree Nursing
		Vocational Nursing
x	<u> </u>	EMT
x		ParaMedic

Additional Comments:

We need this for RN program - not enough emphasis is placed on this area so vital to new graduates.

Skills Development: Name skill or skills enhanced by this program.____

Assess and intervene with intravenous meds and skills; starting IV's

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Software Review Form

Summary Review

Program: Eliminating Medication Errors

__x_ ___ __

x ____

x ____

Appropriate for adult learner: Free of Cultural Bias: Will Fit into Curriculum: Instructional design quality:

Evaulation Criteria:

Type of Program:

Drill/Practice	x_ Simulation	x_ Evaulation
Demonstration	x_ Game	<pre> Other(specify)</pre>
<u>x_</u> Tutorial	<pre>x_ Problem solving</pre>	

Design:

Yes		No	N/A	
x				Screen display is easy to read.
x				User can easily understand directions.
x		-		Program is munu driven.
x _x_	•			User can re-try or correct entries.
X				User can eventually get correct answer.
x				User can exit program without completion.
x		-		Feedback is frequent, varied, immediate.
X				Motivators are appropriate for adult learner.
x				Uses graphics and/or animation.
X				Allows for active student involvement.
X				Holds interest and attention of user.
x	(1)			Documentation is easy to understand.
x _x_ _x_ _x_ _x_				Program branches to student level.
x				Program utilizes student recordkeeper.

Yes	No	N/A	
)_x_			Instructional objectives are clearly stated.
x		<u> </u>	Program is compatible with other education materials.
x	-		Content is factual.
x		_x_	
			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
	· · · · ·		
			s/Disciplines in Division would this software be useful? :
<u>For wl</u> Yes	<u>hich Pr</u> No	ogram N/A	s/Disciplines in Division would this software be useful? :
Yes			Respiratory Therapy
Yes			Respiratory Therapy Radiology
Yes x			Respiratory Therapy Radiology Mental Health
Yes x x			Respiratory Therapy Radiology Mental Health Associate Degree Nursing
Yes x			Respiratory Therapy Radiology Mental Health
Yes x x			Respiratory Therapy Radiology Mental Health Associate Degree Nursing

Skills Development: Name skill or skills enhanced by this program._____

Evaluation of performance and/or cognition to be performed by this program, if applicable. Cognitive skills related to preventing errors Software Review Form

Summary Review Program: <u>Heart Abnormalities and the EKG</u> _____Year: <u>86</u> Cost: <u>75.00</u> Publisher: Focus Media Operates on: Apple <u>x</u> IBM/MS-DOS Compatible <u>x</u> Other (specify) _____ Format: 5 1/4" diskette x 3 1/2" diskette No. of diskettes 1 Memory Required: 256

 Peripherals Required:
 Printer _____
 Second disk drive _____
 Mouse _____

 Joystick _____
 Other (Specify) ______

 Program Summary Description: _ a graphics illustrated program of various arrhythmias and treatments/interventions. Appropriateness for Students: Exlt Good Fair Poor Appropriate for adult learner: _____X_____ Free of Cultural Bias: Will Fit into Curriculum: _____x_ ___ _____X_ ____ Instructional design quality: ____X_____ Evaulation Criteria: Type of Program: _____ Simulation _____ Evaulation _____ Game _____ Other(specify) ____ Drill/Practice ____ Demonstration Problem solving Design: Yes No N/A _x_ Screen display is easy to read. User can easily understand Program is munu driven. User can easily understand directions. _x_ _x_ ______x_ User can re-try or correct entries. ______x_ User can eventually get correct answer. ____ _____ User can exit program without completion. _x_ Feedback is frequent, varied, immediate.
Motivators are appropriate for adult learner.
Uses graphics and/or animation.
Allows for active student involvement. _x_ _x_ _x_ _x_ Holds interest and attention of user. Documentation is easy to understand. ______X_ Program branches to student level. _x_ _x_

x ___ Program utilizes student recordkeeper.

Educa	ational	value	:
Yes	No	N/A	
x		-	Instructional objectives are clearly stated.
x		_	Program is compatible with other education materials.
x			Content is factual.
		x	Minorities are represented.
x		_x_	Emphasizes thinking.
		X	Emphasizes application of skills to actual situations.
For v	which Pr	ogram	s/Disciplines in Division would this software be useful? :
Yes	No	N/A	
x			Respiratory Therapy
			Radiology
x			Mental Health
x			Associate Degree Nursing

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- _____ Vocational Nursing
- _x_ ____ EMT
- _x_ ___ ParaMedic

Additional Comments:

Wide application to health programs.

Skills Development: Name skill or skills enhanced by this program._____ Recognizing various common EKG abnormalties

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Can identify and describe arrhythmias and take action based upon the knowledge presented herein.

	71										
	Software Review Form										
1	Program: <u>Hemodynamics Part I</u>										
ħ.	Publisher: Computerized Educational Sys Year: 1989 Cost: 195.00 Operates on: Apple IBM/MS-DOS Compatible x Other (specify)										
	Format: 5 1/4" diskette 3 1/2" diskette _x No. of diskettes _1										
	Memory Required: <u>256</u>										
	Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify)										
	Program Summary Description: <u>Program emphasizes understanding of the</u> heart and circulatory system as basis for understanding of assessment of clients circulatory system and hemodynamics.										
	Appropriateness for Students: Exlt Good Fair Poor										
	Appropriate for adult learner: x Free of Cultural Bias: x Will Fit into Curriculum: x Instructional design quality: x										
	Evaulation Criteria:										
•	Type of Program:										
	x_ Drill/Practicex_ Simulationx_ Evaulation Demonstration Game Other(specify)_x_ Tutorial Problem solving										
	Design:										
	Yes No N/A										
	<pre>_x Screen display is easy to read. _x User can easily understand directions.</pre>										
	_x Program is munu driven. x User can re-try or correct entries.										
	_x User can eventually get correct answer. _x User can exit program without completion.										
	_x Feedback is frequent, varied, immediate.										
	_x Uses graphics and/or animation.										
	_x Allows for active student involvement. _x Holds interest and attention of user.										
	<pre>_x Documentation is easy to understandx Program branches to student levelx Program utilizes student recordkeeper.</pre>										

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Educational value:

Yes	NO	N/A	
x			Instructional objectives are clearly stated.
x	-		Program is compatible with other education materials.
x		<u></u>	Content is factual.
		x	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? : Yes No N/A

x	 Respiratory Therapy
	 Radiology
<u></u>	 Mental Health
x	 Associate Degree Nursing
	 Vocational Nursing
x	 EMT
x	 ParaMedic

Additional Comments: _____Excellent review of anatomy/physio of heart. Company has site licensure free policy for purchase of only one program.

Skills Development: Name skill or skills enhanced by this program.___

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Knowledge of anatomy and physiology upon which is based course content and knowledge expectations.

Software Review Form

Summary Review

Program: <u>Hemodynamics Part III</u>

 Publisher:
 Computerized Educational Sys
 Year: 1989
 Cost:
 195.00

 Operates on:
 Apple
 IBM/MS-DOS Compatible
 x
 Other (specify)

Format: 5 1/4" diskette ____ 3 1/2" diskette _x__ No. of diskettes _1___

Memory Required: <u>256</u>

Peripherals Required: Printer _____ Second disk drive ____ Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: <u>Program emphasizes assessment of client's</u> <u>hemdynamic status, including pressure monitoring, swan-ganz monitoring,</u> <u>measurement of cardiac output</u>

Appropriateness for Students:

Exlt Good Fair Poor

__x_ ___ ___

__x_ ____

___x_ ____

__x_ ___ _

Appropriate for adult learner: Free of Cultural Bias: Will Fit into Curriculum: Instructional design quality:

Evaulation Criteria:

Type of Program:

x_ Drill/Practice	<u>x_</u> Simulation	x_ Evaulation
Demonstration	Game	<pre> Other(specify)</pre>
_x Tutorial	Problem solving	

Design:

Yes	No	N/A	
x		·	Screen display is easy to read.
x	-		User can easily understand directions.
x			Program is munu driven.
	x_	-	User can re-try or correct entries.
x _x_	-		User can eventually get correct answer.
x			User can exit program without completion.
x	_		Feedback is frequent, varied, immediate.
x _x_			Motivators are appropriate for adult learner.
x _x_			Uses graphics and/or animation.
x			Allows for active student involvement.
x			Holds interest and attention of user.
x			Documentation is easy to understand.
x _x_			Program branches to student level.
x			Program utilizes student recordkeeper.

Educa	ational	value	
Yes	No	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
x	• :	_x_	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
For v Yes	which Pr No	ogram: N/A	s/Disciplines in Division would this software be useful? :
x	no	,	Respiratory Therapy
^-			
			Radiology
			Mental Health
17			Associate Degree Nursing

x ___ Associate Degree Nursing

____ Vocational Nursing

x EMT

x ___ ParaMedic

Additional Comments:

Company has site licensure free policy for purchase of only one program.

Skills Development: Name skill or skills enhanced by this program._____ Knowledge of the hemodynamics involved in circulation.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Identifies hemodynamic changes based upon monitored parameters.

75 Software Review Form

Program: <u>How to Use CAI</u>
Publisher: Computer Educational Systems Year: 88 Cost: 195.00 Operates on: Apple IBM/MS-DOS Compatible x Other (specify)
Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>No. of diskettes 2</u>
Memory Required: <u>256</u>
Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify)
Program Summary Description: Teaches the beginner how to use the computer to run CAI
Appropriateness for Students: Exlt Good Fair Poor
Appropriate for adult learner: x Free of Cultural Bias: x Will Fit into Curriculum: x Instructional design quality: x
Evaulation Criteria:
Type of Program:
Drill/PracticeSimulationEvaulation_x_Demonstration_x_GameOther(specify)_x_TutorialProblem solving
Design:
YesNoN/A_x

Summary Review

. .

E	d	u	С	a	t	i	0	n	a	1	V	a	1	u	e	2	

Yes	NO	N/A	
x		-	Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x	1		Content is factual.
(<u>,</u> .		_x_	Minorities are represented.
x			Emphasizes thinking.
		X	Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? : Yes No N/A

Description The second	1 7
_x Respiratory Therapy	γ
_x Radiology	
_x Mental Health	
_x Associate Degree Nu	
_x Vocational Nursing	ſ
_xEMT	
x ParaMedic	

Additional Comments:

Excellent introduction to how to use the computer to view CAI.

Skills Development: Name skill or skills enhanced by this program.____

Evaluation of performance and/or cognition to be performed by this program, if applicable.

The learner will demonstrate abilities by using computer correctly.

77 Software Review Form

Summary Review

Program:Managing the Side Effects of Chemotherapy						
Publisher: Computerized Educational System Year: 1988 Cost: 195.00 Operates on: Apple IBM/MS-DOS Compatible x Other (specify)						
Format: 5 1/4" diskette x 3 1/2" diskette x No. of diskettes 2						
Memory Required: 256						
Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify) Program Summary Description: <u>Demonstrates characteristics of cancer</u> <u>cells and how chemotherapeutic agents work to control replication of</u> them.						
Appropriateness for Students: Exlt Good Fair Poor						
Appropriate for adult learner: _x						
Evaulation Criteria:						
Type of Program:						
x Drill/Practice Simulation Evaulation_x_ Demonstration Game Other(specify)_x_ Tutorial Problem solving						
Design:						
Yes No N/A _x Screen display is easy to read. _x User can easily understand directions. _x Program is munu driven. _x User can re-try or correct entries. _x User can eventually get correct answer. _x User can exit program without completion. _x Feedback is frequent, varied, immediate. _x Motivators are appropriate for adult learner. _x Uses graphics and/or animation. _x Allows for active student involvement. _x Holds interest and attention of user. _x Documentation is easy to understand. _x Program branches to student level. _x Program utilizes student recordkeeper.						

ies	NO	N/A	
)_x_ _x_	·		Instructional objectives are clearly stated.
			Program is compatible with other education materials.
x			Content is factual.
		x	Minorities are represented.
x			Emphasizes thinking.
x			Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? : Yes No N/A

ICO	NO	п/п	
	, ;		Respiratory Therapy
			Radiology
			Mental Health
x			Associate Degree Nursing
			Vocational Nursing
		-	EMT
فيتشتجوا			ParaMedic

Additional Comments: <u>Content</u>, although basic, may be more relevant to students in specialized, chemotherapy certification program.

Skills Development: Name skill or skills enhanced by this program._____ <u>Application of Nursing Diagnosis and client problems is very well</u> done.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Software Review Form Summary Review Program: NCLEX Review for State Board Examination

 Publisher:
 M E P C
 Year:
 88
 Cost:
 695

 Operates on:
 Apple x
 IBM/MS-DOS Compatible x
 Other (specify)

 Format: 5 1/4" diskette x 3 1/2" diskette x No. of diskettes ____ Memory Required: 256 Peripherals Required: Printer <u>x</u> Second disk drive <u>x</u> Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: <u>Review and statistical analysis of stu-</u> dent performance of 400 questions that are NCLEX designed. Gives student info relative to strengths and weaknesses; keeps records for student for later reassessment Appropriateness for Students: Exlt Good Fair Poor Appropriate for adult learner: _X__ ____ Free of Cultural Bias: _x__ ___ Evaulation Criteria: Type of Program: _____ Simulation _____X_ Evaulation Drill/Practice Problem solving _____ Other(specify) ____ Demonstration Tutorial Design: Yes N/A No Screen display is easy to read. _x_ User can easily understand directions. _x_ Program is munu driven. _x_ ____x_ User can re-try or correct entries. ____x_ User can eventually get correct answer. _____ User can exit program without completion. _x_ __ Uses graphics and/or animation. Allows for active student involvement. Holds interest and attention of user Holds interest and attention of user. Documentation is easy to understand. _____x Program branches to student level. ____ Program utilizes student recordkeeper. x

Educational value:

res	NO	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
		x	Minorities are represented.
x			Emphasizes thinking.
x	<u></u>		Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? : Yes No N/A

	 Respiratory Therapy
	 Radiology
	 Mental Health
x	 Associate Degree Nursing
	 Vocational Nursing
	 EMT
	 ParaMedic

Additional Comments: <u>Has already been recommeded to K. Meyers and</u> B. Hutchinson in light of recent changes and poor results on Boards

Skills Development: Name skill or skills enhanced by this program.____

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Analysis consists of Nursing Process Stages as well as skills/knowledge areas as defined by National Council/NCLEX.

Software Review Form

Summary Review

Program: <u>Preventing Patient Falls</u>

 Publisher:
 Computer Educational Systems
 Year:
 88
 Cost:
 195.00

 Operates on:
 Apple
 IBM/MS-DOS Compatible
 x
 Other (specify)

Format: 5 1/4" diskette x 3 1/2" diskette No. of diskettes 2

Memory Required: 256

Peripherals Required: Printer _____ Second disk drive ____ Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: <u>Teaches assessment of client for high</u> risk potential for falls; uses good animated graphics

Appropriateness for Students:

Exlt Good Fair Poor

x ____

x ___ _

__X_ ___ __

___X_____

Appropriate for adult learner: Free of Cultural Bias: Will Fit into Curriculum: Instructional design quality:

Evaulation Criteria:

Type of Program:

)	Drill/Practice	x_	Simulation	 Evaulation
	Demonstration	x_	Game	 Other(specify)
X	Tutorial	X	Problem solving	

Design:

Yes	No	N/A	
x			Screen display is easy to read.
x			User can easily understand directions.
x			Program is munu driven.
x	•	·	User can re-try or correct entries.
x			User can eventually get correct answer.
x			User can exit program without completion.
x _x_		-	Feedback is frequent, varied, immediate.
			Motivators are appropriate for adult learner.
x			Uses graphics and/or animation.
x			Allows for active student involvement.
x			Holds interest and attention of user.
x	•		Documentation is easy to understand.
x			Program branches to student level.
x	s. 		Program utilizes student recordkeeper.

Educ	ational	value	
Yes	No	N/A	
)_x_		<u> </u>	Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
x		_x_	Minorities are represented.
x		·	Emphasizes thinking.
x			Emphasizes application of skills to actual situations.
For	which P	rograms	S/Disciplines in Division would this software be useful? :
			A set and a set of a

Yes	NO I	N/A	
x			Respiratory Therapy
x			Radiology
X			Mental Health
x			Associate Degree Nursing
x			Vocational Nursing
x			EMT
x			ParaMedic

Additional Comments:

Falls are a problem for all health care workers and assessing the client potential can help prevent them

Skills Development: Name skill or skills enhanced by this program.____

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Will take actions to prevent client falls in the clinical setting.

Software Review Form

Summary Review Program: Type II Diabetes Publisher: <u>Computer Educational Systems</u> Year: <u>87</u> Cost: <u>195.00</u> Operates on: Apple ____ IBM/MS-DOS Compatible _x Other (specify) ____ Format: 5 1/4" diskette _____ 3 1/2" diskette _____ No. of diskettes _2___ Memory Required: 256 Peripherals Required: Printer _____ Second disk drive ____ Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: ____ Teaches about diabetes and care of the client with diabetic conditions by use of insulin molecule. Appropriateness for Students: Exlt Good Fair Poor Free of Cultural Bias: Will Fit into Curriculum: __x_ ___ ___x_ ____ Instructional design quality: Evaulation Criteria: Type of Program: _____ Simulation _____ Evaulation Drill/Practice _____ Other(specify) ___x_ Game Problem solving x_ Tutorial Design: Yes No N/A _x_ Screen display is easy to read. User can easily understand directions. _x_ _ Program is munu driven. _x_ ____ User can re-try or correct entries. _X_ User can eventually get correct answer. User can exit program without completion. Feedback is frequent, varied, immediate. Motivators are appropriate for adult learner. _x_ _x_ _x_ _x_ _x_ _x_ _x_ _x_ _x_ Program utilizes student recordkeeper. _x_

.

	N/A				
		Instructional objectives are clearly stated.			
		Program is compatible with other education materials.			
		Content is factual.			
	x	Minorities are represented.			
		Emphasizes thinking.			
		Emphasizes application of skills to actual situations.			
		s/Disciplines in Division would this software be useful? :			
NO	M/A	Respiratory Therapy			
		Radiology			
		Mental Health			
		Associate Degree Nursing			
		Vocational Nursing			
		Vocational Nursing			
		Vocational Nursing EMT			
	 ch Pro				

Good for C.E. offerings, also.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Demonstrate understanding of the client with diabetes, type II.

Software Review Form

Summary Review Program: Universal Precautions Publisher: _____Computer_Educational_Systems___Year: __88__Cost: __195.00____ Operates on: Apple ____ IBM/MS-DOS Compatible _x__ Other (specify) _____ Format: 5 1/4" diskette x 3 1/2" diskette No. of diskettes 2 Memory Required: 256 Peripherals Required: Printer _____ Second disk drive ____ Mouse _____ Joystick ____ Other (Specify) _____ Program Summary Description: _______ Teaches, in game strategy, how to protect oneself from various infections in client care. Barrier technique and universal precautions are thoroughly presented with CDC quidelines. Appropriateness for Students: Exlt Good Fair Poor Appropriate for adult learner: _x_ __ _ • Free of Cultural Bias: Will Fit into Curriculum: Instructional design quality: _x__ ___ _x_ ___ ___ _x_ ___ Evaulation Criteria: Type of Program: ___x_ Simulation ___x_ Evaulation ___x_ Game Other(speci Drill/Practice _____ Other(specify) _x_ Tutorial Design: Yes NO N/A _x_ _x_ _x_ _x_ _ ___ Screen display is easy to read. User can easily understand directions. ____ Program is munu driven. _____ User can re-try or correct entries. _____ User can eventually get correct answer. _x_ User can exit program without completion. _x_ _____ Feedback is frequent, varied, immediate. _x_ Motivators are appropriate for adult learner.
Uses graphics and/or animation. _x_ _X_ __ Allows for active student involvement. Holds interest and attention of user. _x_ _x_

 Documentation is easy to understand.

 Program branches to student level.

 Program utilizes student recordkeeper.

 x _x_ _x_

.

E	ducatio	onal	value:	
Y	es	No	N/A	
)	x_			Instructional objectives are clearly stated.
	x_			Program is compatible with other education materials.
-	x			Content is factual.
			x	Minorities are represented.
_	 x			Emphasizes thinking.
_	x			Emphasizes application of skills to actual situations.
F	or this	-h D-		(Disciplings in Division would this software be useful? .

For which Programs/Disciplines in Division would this software be useful? :

Yes	NO N/	A
x		_ Respiratory Therapy
x		_ Radiology
x		_ Mental Health
x		Associate Degree Nursing
x		_ Vocational Nursing
x		EMT
x		_ ParaMedic

Additional Comments:

Highly recommended for its implications for AIDS

Skills Development: Name skill or skills enhanced by this program.____

Preventive techniques for wide variety of situations.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

Applies the skills related to isolating body substances and taking universal precautions.

Software Review Form		
Summary Review		
Program: Vital Signs and Physical Assessment		
Program: Vital Signs and Physical Assessment Publisher: Mosby Company Year: 87_Cost: Operates on: Apple X IBM/MS-DOS Compatible X. Other (specify) Format: 5 1/4" diskette X 3 1/2" diskette No. of diskettes 1 Memory Required: 256 Peripherals Required: Printer Second disk drive Mouse Joystick Other (Specify)		
Format: 5 1/4" diskette <u>x</u> 3 1/2" diskette <u>No. of diskettes 1</u>		
Summary Review Program: Vital Signs and Physical Assessment Publisher: Mosby Company Year: _87_ Cost: Operates on: Apple IBM/MS-DOS Compatible Other (specify) Format: 5 1/4" diskette 3 1/2" diskette No. of diskettes _1 Memory Required: _256 Peripherals Required: Printer Second disk drive Mouse		
Joystick Other (Specify) Program Summary Description: <u>Excellent review of basic skills of assessment and vital signs. Is a</u>		
Appropriateness for Students: Exlt Good Fair Poor		
Free of Cultural Bias: x Will Fit into Curriculum: x Instructional design quality: x		
x_Drill/PracticeSimulationEvaulation x_DemonstrationGameOther(specify)		
Publisher: Mosby Company Year: £7. Cost: Operates on: Apple		
x		

Yes	No	N/A	8
x		-	Screen display is easy to read.
x		-	User can easily understand directions.
x			Program is munu driven.
x	·		User can re-try or correct entries.
x	<u> </u>		User can eventually get correct answer.
x			User can exit program without completion.
x			Feedback is frequent, varied, immediate.
x			Motivators are appropriate for adult learner.
x			Uses graphics and/or animation.
X			Allows for active student involvement.
x			Holds interest and attention of user.
x			Documentation is easy to understand.
	X		Program branches to student level.
	x		Program utilizes student recordkeeper.

Educat	ional	value
Vee	Ma	NT / 3

res	NO	N/A	
x			Instructional objectives are clearly stated.
x			Program is compatible with other education materials.
x			Content is factual.
		x	Minorities are represented.
x			Emphasizes thinking.
	-		Emphasizes application of skills to actual situations.

For which Programs/Disciplines in Division would this software be useful? :

Yes	No	N/A	
x	-		Respiratory Therapy
			Radiology
X			Mental Health
x			Associate Degree Nursing
x			Vocational Nursing
x			EMT
x			ParaMedic

Additional Comments:

Probably not available except with adoption of textbook by Potter/Perry.

Skills Development: Name skill or skills enhanced by this program._____ As indicated in the description.

Evaluation of performance and/or cognition to be performed by this program, if applicable.

APPENDIX C - SUPPORT SERVICES

Fuld Institute Information	page	90
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Medline Options Information	page	105



FULD INSTITUTE FOR TECHNOLOGY IN NURSING EDUCATION

28 Station Street Athens, Ohio 45701 614-592-2511 Dear Colleague:



Welcome to the elite group of nursing educators and professionals about to embark on an adventure in electronic communication - the FITNET BBS. FITNET is an electronic bulletin board system for the exclusive use of FITNE members. Communication on FITNET is toll-free for all FITNE associates and institutional faculty who wish to participate in this valuable information sharing resource.

On-line time is limited, to provide more users with the opportunity to "log on", and to stimulate efficient use of the system. Please don't be discouraged if the line is busy when you first try to connect - keep trying. If you have problems using FITNET, please call on our voice line for assistance (614-592-2511). A bulletin board system can only reach its full potential with maximum user input and, we strongly encourage the participation of all users.

Enclosed in this packet is your individual password and FITNET User's Guide, along with information about modems and communication software available through FITNE. Please feel free to contact me with any questions or suggested improvements. Or, simply leave a message for the 'Sysop'.

Your Sysop, Reventione,

Bob Powers Technical Specialist FITNE Read

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Mr. Annie Che 1. St. P. ray 20, 46. Tra Grade and Statel

5. 91 Mr. West Sector Content

A Catalog of Computer Aided Instruction Hardware Interactive Video System,

Modems and Software ດ້າງ ເພື່ອການເຮັດ ລາງ ແລະ ການ ກາງ ເພື່ອການເຮັດ ລາງ ແລະ ການ

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The Fuld Institute for Technology in Nursing Education (FTTNE) is a non-profit corporation established to encourage and arr support the use of educational technology in nursing education. FITNE disseminates information on educational technology through training seminars; telephone support services; an electronic bulletin board; the distribution of a technology newsletter and the development of interactive video programming. To assist nurse educators in introducing computer assisted and interactive video instruction, FITNE has assembled the suggested hardware and software systems described in this brochure.

> Second Edition September, 1988

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The FITNE CAI Computer System

Description

The FITNE CAI Computer System is an integrated, full function computer system that is designed to meet the academic needs of nursing students. The FITNE system is configured for instructional and academic purposes. We are aware of the financial and technical support constraints that exist at many nursing schools these days. That's why we fully assemble and test each system before it is shipped. We clearly label all cables and corresponding plugs and include our own manual to insure that final set up at your site is a simple task. We also can provide full telephone support and product service.

Our computers use the standard MS-DOS operating system, which is likely to remain the most common in use. The Indtech Model 286-8 uses a high speed 80286 microprocessor which will insure that it does not become obsolete and that it can take advantage of new options now being engineered for the future. The Indetech 286-8 offers unique standard features including a large, 238 watt power supply, 12 expansion card slots, space for up to 5 half height drives, and a controller for two floppy and two hard disk drives.

Because the current software standard for Nursing CAI uses the traditional 5-1/4" floppy disk, we are specifying two of these floppy disks in the standard system. All other software (word processing, database, statistics, etc.) are also available in this format. (Should you wish to add 3.5" disks, add in units are available from many manufacturers.) A 20 megabyte, Seagate hard disk drive can be ordered or added at a later date, since we will preformat it and ship it with easy installation instructions and automatic setup program for a simple update. And because you are a member of FITNE, you can call on us for support at any time.

We offer a choice of two displays. We recommend the the high resolution EGA color option, which enables you to use any software that utilizes monochrome mode, Hercules, CGA (low resolution color) or EGA color mode. Many of the newer CAI software programs are specifically designed to take advantage of color displays. The second viewing option is a good quality, standard monochrome display. For many programs, such as word processing, databases, spreadsheets, etc., color is not necessary. For a low cost display alternative, you will find this option to be a good one.

, We are sure that you will find this FITNE System offers the best solution for using today's nursing CAI and general computing software. And, it is reasonably priced and comes with *our full support*.

Specifications

Computer ···

- IndTech Model 286-8 Desktop System
- 100% IBM AT-Compatible, 8MHz-80286, 16 Bit Microprocessor, 1 wait state
- 640K RAM
- (2) 360KB 5.25" Floppy Drives, (Optional 20MB Seagate Hard Disk)
- 2 Floppy Drive/2 Hard Disk Drive Controller Included
- 1 Serial and 1 Parallel Port
- 12 Expansion Slots (6 Full-size 16 Bit, 2 Full-size 8-Bit and 4 Half-size 8-Bit)
- · 238 Watt 110/220 VAC Switchable Power Supply
- 101 Key AT-Style Enhanced Keyboard
- FCC Class "A" and Class "B" Approved

Color Version (CC100) includes computer plus:

- · Auto switching EGA interface .
- High Resolution (640 x 350 EGA, 720 x 348 HGC)
- Totally Emulates IBM Enhanced Graphics Adapter (EGA) with 16 simultaneous colors out of 64
- Compatible with Color Graphics Adapter (CGA), Monochrome Display Adapter (MDA) and Hercules Graphics
- Includes Diagnostic Software with utilities

• MITSUBISHI 14" HI-RES MONITOR

- Dual-sync, auto switching, displays in both CGA and EGA
- 64 colors available in EGA Mode
- CRT 90 degree, P22 phosphor, .4mm pitch stripe, high contrast non-glare screen
- Optional tilt/swivel base available \$35.00

Monochrome Version (CM101) includes computer plus:

- · Monochrome display adapter with parallel printer port
- · 13" fine pitch, amber phosphor monitor
- · Front controls for brightness and contrast

Manufacturer's Warranties Apply

All systems include necessary cables and are fully checked out prior to shipment. Optional hard disk is formatted and complete with instructions for simple installation, if purchased for later upgrade. All warranties are those of the Manufacturer and, except for such warranties, purchaser takes the system and its components as is. FITNE makes no warranties, express or implied.

Complete Color System	(CC100)	\$2,060.00 (\$2963)
Complete Mono System	(CM101)	\$1,590.00 (\$1957)
AAAAD YY. J D' J	(CHD20)	\$279.00 (\$369)

The FITNE Interactive Video System

Description

The FTTNE Interactive Video System offers nursing educators power, flexibility, and our support. It uses proven technology from long established manufacturers in this industry. With EGA graphics, text and graphics overlay, touch screen, 80286-based computer with a 20 Mb hard disk and laser videodisc player, it compares favorably with any other system. With advanced features, like a color palette of 4096 colors, up to 16 simultaneous transparent colors and a z-axis on the touch screen, the FTTNE system offers even more potential. In addition, when not being used for interactive video, the system can be used as a color CAI computer system that will run all existing CAI software. All this and more in a complete system that will cost *less than* \$6,000!

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These features and benefits are only part of the reason we are recommending this system. We are selling it because we can then support it. We know that this technology can be intimidating and confusing, and many schools lack experienced technical support. Each system we sell will be completely assembled and tested prior to being shipped to you. All cables will be labeled, and we will include a special start-up manual to make sure you can immediately get it running. You will be able to call us with any question or problem because we will know exactly what you have. And we can even send you "loaner" components if part of your system needs servicing.

For schools to get the maximum benefit of the technology it is important to begin using it as quickly as possible. We are constantly reviewing nursing related software for recommendations and arrange discounts for our members. FITNE will also produce 5 new *nursing* programs in the next 2-1/2 years, and we are seeking out other programs to distribute, as well. To coordinate a body of program developers, we are recommending the *Quest* authoring system for schools that wish to develop their own programs. To help support these efforts, FITNE will be offering interactive video developers workshops on using this authoring system. Our goal is to increase the amount of good *nursing* interactive video, and we will seek to distribute as much of it as possible.

Finally, since some schools have already committed to other hardware systems, we intend to make our courseware available for the IBM InfoWindow, as well. Additionally, although the FITNE System offers more features than the InfoWindow, the FITNE System will be InfoWindow compatible and able to run programs written for InfoWindow.

Computer

- IndTech Model 286-8 Desktop System
- 100% IBM AT-compatible, 8 MHz-80286, 16 bit micro processor, 1 wait state

Specifications

- 640K RAM
- One 360K 5.25" floppy drive, one 20 MB hard disk
- · Dual floppy drive and dual hard disk controller card
- 6 Full-size 16 bit, 2 full-size 8-bit and 4 half-size 8-bit expansion slots (12 total)
- 238 Watt 110/220 VAC switchable power supply
- 101 Key AT-Style enhanced keyboard

Graphics/Overlay

MICROKEY/MARK 10

- Full EGA compatibility 640x350 (640x200 Overlay)
- 16 colors per screen, from a palette of 4096
- SEAMLESS SEARCH circuit prevents disturbances during videodisc searches
- Up to 16 simultaneous transparent colors; supports translucent color function
- · Single slot configuration; controls videodisc players

Monitor

- MITSUBISHI 13" COLOR MONITOR
- Composite (NTSC) and computer inputs
- · Auto-switching between EGA and CGA graphics modes
- · Audio system with speaker and headphone jack

Touchscreen

- ELOGRAPHICS INTELLITOUCH SCREEN
- Surface Accoustic Wave technology
- · Revolutionary technology gives X, Y and Z touch axes
- · Completely transparent glass surface
- Single slot controller card

Laser Videodisc Player

- PIONEER LDV 4200 industrial laserdisc player
- · CAV (Standard) and CLV (extended play) formats
- RS-232C computer control interface
- High speed access/blinkless search within 100 frames
- · Freeze, step, scan; 255 forward/reverse playback speeds
- Optional remote control for manual operation \$55.00

FITNE INTERACTIVE SYSTEM (IVC 201) \$5,895.00 (\$7,119)

System is completely set up and tested prior to shipment. It comes with all cables and MS-DOS.

The FITNE 2400 Baud Modem System

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FITNE is offering a low cost/high quality modem to our members. If you need a modem to gain access to FITNET, or electronic communication system, we recommend this modem system. The complete package consists of a high quality, 2400 baud modem and PROCOMM communications software. PROCOMM is a good communication software package for the IBM PC/XT/AT computers and compatibles.

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The modem is available in both external and internal models. The external modem can be connected to virtually any computer having a serial communication port. The internal model uses a standard IBM half-card slot. The cost of the PROCOMM license is also included in this special purchase arrangement. For other computer systems, (Apple, Macintosh, etc.) our modem will work with virtually any communications programs.

FEATURES AND SPECIFICATIONS

- · 300, 1200 and 2400 bit-per-second operation.
- Automatic answer mode.
- · Guaranteed complete Hayes asynchronous compatibility.
- Compatible with virtually all current communications programs.
- User modifiable non-volatile RAM stores modem configuration profile.
- No internal or external switches (except power on/off on external model).
- Pulse or touch-tone dialing.
- Full or Half-Duplex operation.
- Two wire line or dialup operation.
- Separate Line and Set connectors to accommodate data and voice calls.
- · Volume-controlled speaker for line monitoring. .
- Automatic adaptive equalization for consistent error-free operation over all common phone lines.
- Seven LED displays (external model).

5 year Manufacturer's Parts and and Labor Warranty

Complete FITNE modem system consists of 2400 baud modem, serial cable (for external modem only) PROCOMM software (MS-DOS) with license and FITNET manual for

members.

 FITNET Modem (External)
 (M2400E)
 \$200.00 (\$259)

 FITNET Modem (Internal)
 (M2400)
 \$175.00 (\$199)

Software

Quest Authoring System

A full function authoring system that is one of the best performers on the market. It is both powerful and easy to learn, offering sophisticated answer judging, conditional branching, a graphics generator, animation, student record keeping and management, support for touchscreen and videodisc, and more. Quest can be used for creating CAI programs as well as interactive video. It supports a wide range of interactive video systems, including the FITNE System, InfoWindow, and View. \$1,095 (\$1,295)

Interactive Video Design Toolkit

This Macintosh program allows developers to simultaneously create a lesson flowchart and database for tracking program design information. The database can contain information on video, both audios, branching, graphics, and more. Data and flowchart elements are linked. Program offers interactive storyboard function, providing debugging and pre-testing feature for developers. *IVD Toolkit's* reports are useful for organizing the video production, and it's designs can be used with any authoring system. \$295 (\$375)

Intravenous Therapy

An interactive videodisc instructional program that teaches intravenous therapy principles and techniques. Divided into six sections: Solutions, Preparing Solutions and Tubing; Starting the IV; Maintaining the IV; Discontinuing the IV; Problems and Complications. Program uses demonstration, and periodic content quizzes but is designed to be used with equipment nearby to practice the skills described. Typically takes several hours to complete the lesson. Runs on FTINE Interactive System; InfoWindow to follow. \$395 (\$695)

WARRANTY INFORMATION

All warranties are those of the manufacturers and, except for such warranties, purchaser takes the system and components as is. FITNE makes no warranties, expressed or implied.

ORDERING INFORMATION

FITNE Member prices are in bold, non-member, list prices are in parentheses. You must be an institutional member of FITNE for price discounts. Mail all purchase orders to:

Fuld Institute for Technology in Nursing Education 28 Station Street Athens, OH 45701 614/592/2511

GRATEFUL MED INFORMATION KIT

GRATEFUL MED Fact Sheet

Includes hardware/software requirements, order information, and instructions for obtaining access to the MEDLARS system. Individuals who already have a user ID code may use that code with GRATEFUL MED and do not need to apply for another.

GRATEFUL MED Description

(Reprinted from the February 1986 issue of the NLM Technical Bulletin)

MEDLARS Databases and Pricing

If you do not have compatible equipment for GRATEFUL MED but are interested in obtaining access to MEDLARS, contact the MEDLARS Management Section to receive information on regular access procedures and training options.

> National Library of Medicine MEDLARS Management Section 8600 Rockville Pike Bethesda, MD 20894

800/638-8480 or 301/496-6193

MMS 3/86

GRATEFUL MED

96

A front-end software package from the National Library of Medicine used for accessing the NLM MEDLARS® databases via a personal computer.

DEVELOPED FOR HEALTH PROFESSIONALS

- "Screen" format allows offline search formulation and automatic conversion to proper searching format
- Simple, direct access to the NLM computer with automatic dialing and login
- Conducts search online and automatically downloads search results
- Searches MEDLINE, MEDLINE Backfiles, and CATLINE®
- No formal training required for individual Health Professionals
- Expert search mode also available for all MEDLARS ELHILL databases and PDQ (menu-driven cancer information file)

* HARDWARE / SOFTWARE REQUIREMENTS

- .- IBM PC or IBM-compatible machine with at least 256K memory
- At least one double-sided, double-density disk drive
- DOS (Version 2.0 or higher)
- Hayes Smartmodem or completely compatible modem

USING GRATEFUL MED

Step 1: Order GRATEFUL MED from the National Technical Information Service (NTIS); see reverse.

Each GRATEFUL MED order contains:

- master floppy disk (5-1/4 inch)

- user guide (includes installation instructions)
- application packet for MEDLARS system access
- general information brochures
- Apply for access to MEDLARS (User ID Code necessary to arm Step 2: search) by returning the application materials to the MEDLARS Management Section, NLM. (Current NLM users do not need an additional User ID Code to use GRATEFUL MED.)

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saml. Step 3: After receipt of User ID Code, follow GRATEFUL MED user and a state of the guide instructions to install and set-up GRATEFUL MED.

ANY QUESTIONS?

CALL: MEDLARS Management Section 301/496-6193 or 800/638-8480 Monday-Friday, 8:30-5:00 PM ET

MAIL ORDER TO:

NTIS.

U.S. DEPARTMENT OF COMMERCE National Technical Information Service Soringfield, VA. 22161

NTIS ORDER FORM

PURCHASER:	For DTIC Users Only DTIC User Code Contract Number flast 6 characters		EXPRESS/RUSH REGULAR SERVICE TELECOPIER TELEX	(800) 336-4700 (703) 487-4700 E (703) 487-4650 (703) 321-8547 89-9405		
BILLING OFFICE TELEPHONE:	()	SHIP TO:	(Enter ONLY if differer	t from address at left)		
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ORDERING OPTIONS: All Regular demand orders are shipped First Class Mail or equivalent service to all U.S. addresses. For First Class Mail or equivalent service to Canadian and Mexican addresses add \$3 per item; for all other addresses add \$5 er item.) You may also elect Express or Rush Service. For a \$20 per item charge your Express order will be processed with... 24 hours and delivered by overnight courier. For a \$10 per item charge your Rush order will be processed within 24 hours and mailed First Class Mail (or equivalent) or you may pick up your Rush order at NTIS within 24 hours for a \$7.50 per item charge. *A Shipping and Handling fee must be applied to all Regular orders, but does not apply to Express, Rush or subscriptic... orders.

USE THIS SECTION ONLY IF YOU KNOW THE DOCUMENT NUMBER. IF YOU ARE ORDERING BY TITLE, TURN THE PAGE.

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NTIS ORDER NUMBER	CODE	Paper Copy	Micro-	Other (Specify)	PRICE	SERVICES	30.02
PB86 - 158482 / GBB					29.95*		
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S *Volume discount of 25% available of	i on orders of 5 or mo	re copies]			i	
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Charge to my American Express Account No.	Z VISA Expiration D		terCard	ntar use untar	tive media in formation to the media co mation they p and to its' us	users' attenti des when ord rovide is very	on. Please lering. The helplui to

The NILM ISSN 0146-3053 FEBRUARY 1986 No. 202 February 1986 No. 202

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NLM Introduces GRATEFUL MED: A User-Assisted Interface To MEDLINE And CATLINE

Rose Marie Woodsmall Office of Planning and Evaluation, NLM

John E. Anderson Director, Information Systems, NLM

On February 5, 1986, NLM unveiled a new front-end software package for accessing NLM's MEDLINE, MEDLINE Backfiles and CATLINE databases via a personal computer. This software, named GRATEFUL MED, is designed to simplify the search process for an untrained or novice user. Health professionals; scientists, and others with a need for medical information can use GRATEFUL MED to search MEDLINE, its Backfiles, and CATLINE without knowledge of NLM's ELHILL search system, controlled vocabulary (MeSH[®]), or database structure. Experienced searchers can use the "expert" mode to take advantage of some useful and time-saving features, such as automatic login and downloading of citations in any of the MEDLARS[®] databases except those on the TOXNET system. Continued on page 6

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • Public Health Service • National Institutes of Health National Library of Medicine

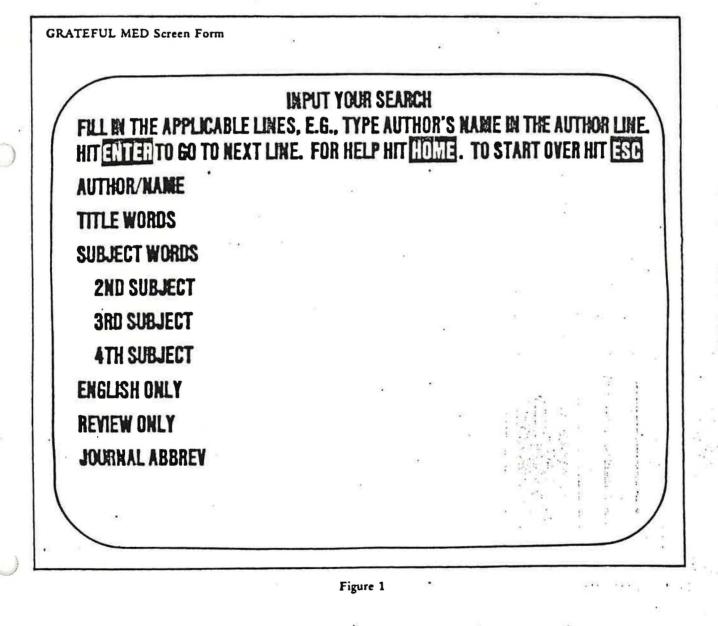
GRATEFUL MED Continued from page 1

GRATEFUL MED runs on any member of the IBM PC family and most compatibles with at least 256K RAM and one double-sided, double-density disk drive. It requires a HAYES Smartmodem or completely compatible modem.

After installing the software (instructions for installation are included with the documentation), the user runs the SETUP module which adds the personal User ID Code/Password and local telephone numbers used in the automatic logon sequence.

STEPS IN USING GRATEFUL MED

Following two screens of introduction and instructions, the user constructs a search on a "screen form" (see Figure 1 and the detailed description below). The software then calls the NLM computer, enters the user's code/password, and the search is "uploaded" (sent to the NLM computer via telecommunications lines). After completion of the search, the results are "downloaded" (sent back to the user's personal computer), and the user is signed off the NLM computer.



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GRATEFUL MED then reformats the retrieved citations (freeing the user from a need to understand the mnemonics attached to the data), and presents the citations, one at a time, to the user. The user is asked to judge if each citation is relevant to the search request. Based on these interactions, the software suggests MeSH Headings that may be useful in further searching on the subject. These suggestions are produced by an algorithm in the software that analyzes the MeSH Headings attached to both the relevant and non-relevant citations (as judged by the user). If the user so chooses, the relevant citations are printed at this time.

The user is given the option of searching the MEDLINE Backfiles after the current file retrieval is examined. If a search yields nothing in the current file, the user is given brief instructions on what to look for in the search interaction, which can then be displayed, and the option to search the Backfiles is provided. The user is thereby given some guidance for possible reformulation before searching all the Backfiles with a strategy that may contain a misspelled word, etc.

The "intellectual" activities of selecting appropriate search words and assessing the relevancy of the retrieval are done while the user is <u>not</u> connected to the NLM computer; hence, the user can spend time editing the search and printing the citations without concern for connect time costs.

HOW GRATEFUL MED WORKS

GRATEFUL MED uses a "screen form" for formulating the search (see Figure 1). The user enters individual search words for each concept to be searched. These are then searched as both MeSH Headings and Text Words from the title and abstract. Lines are provided on the form for author, title, subject, and journal searching. In addition, there are lines on the form to limit to English language and Review articles.

All lines of the screen form are ANDed together (Boolean AND); that is, the requirements for each line filled in by the user must be satisfied for retrieval to occur.

All words entered on the Title line must be present for a citation to be retrieved (also Boolean AND). There are four Subject lines, each of which allows for alternative words for a concept to be entered (Boolean OR).

Users familiar with the MeSH vocabulary may use multi-word headings or MeSH Heading/Subheading combinations by beginning the line with a forward slash (/), which indicates that the line is to be sent to the NLM computer "as is."

The software's suggestion of MeSH headings (after the user has made relevancy judgments) encourages, but does not require, that users learn more about advanced methods of searching.

USER ASSISTANCE

The MEDLARS Management Service Desk will handle all requests for assistance from GRATEFUL MED users, just as for all other users of the system. Articles geared toward those using the software will be included in the <u>NLM Technical Bulletin</u> in the future.

AVAILABILITY

The software (on a floppy disk) and accompanying documentation will be available for a nominal price through the National Technical Information

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Service (NTIS) in late February. New versions will be provided to purchasers at no cost. Purchase of the GRATEFUL MED software does not include a User ID Code. All applications for access must still be processed by MEDLARS Management.

The GRATEFUL MED package will also include: an application packet for a User ID Code; a MEDLARS system

brochure; and information on NTIS Deposit Accounts. MEDLARS Management Section will assign an access code upon receipt of the completed application and provide the user with local node numbers for TELENET, TYMNET, and UNINET. Training will not be required for GRATEFUL MED users.

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Distribution specifics will be featured in the Online NEWS.

GRATEFUL MED HIGHLIGHTS

Accepts a search on a screen form.

Dials the NLM computer, logs in, and uploads the search in ELHILL format.

Downloads the retrieval and logs off.

Reformats the retrieval for examination by the user, who then assesses the usefulness of each citation, printing only those that are relevant.

Suggests MeSH Headings for further subject searching based on the user's assessment of relevancy of the retrieved citations.

Provides an "expert" mode for those who wish to bypass the screens.

1986

Databases available on NLM MEDLARS System

AVLINE	INFORM	NAME AUTHORITY FILE
BIOETHICSLINE	INTROMED	PDQ
CANCERLIT	INTROTOX	POPLINE
CANCERPROJ	MEDLINE	RTECS
CATLINE	MED83	SDILINE
CHEMLINE	MED80	SERLINE
CLINPROT	MED77	TOXLINE
DIRLINE	MED75	TOXBACK76
HEALTH PLANNING &	MED71	TOXBACK65
ADMINISTRATION	MED66	TOXNET
HISTLINE	MESH VOCABULARY	

FILE

MEDLARS HOURS

ELHILL (MEDLINE, TOXLINE, etc.), **MEDLEARN**, and PDQ Systems

"24 Hours" ROUND-THE-CLOCK Computer Service

Guaranteed: Sunday 11:15 PM - Saturday 5:00 PM ET Non-guaranteed: Saturday 5:00 PM - Sunday 11:00 PM ET

Scheduled Down Time Daily: 11:00 PM - 11:15 PM ET

TOXNET System

"24 Hours" ROUND-THE-CLOCK Computer Service

Scheduled down times do exist; are subject to change as the system evolves.

FOR USER ASSISTANCE

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CALL:

MEDLARS Management Section Service Desk Monday - Friday 8:30 AM - 5:00 PM ET 800/638-8480 301/496-6193

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CHARGES EFFECTIVE JANUARY 1, 1986

NLM ONLINE PRICING ALGORITHM CHARGES TO DOMESTIC USERS

File	Conn Char (Per		Search Statement Charge	Online Citation Charge	Interaction Charge (Carriage Returns)	Comput Resour Disk Acces (Per	rces ses	Onlin Charac Char (Per 1	ter ges	Averag Search Charge (Per Ho	her es*
	Non- Prime	Prime				Non- Prime	Prime	Non- Prime	Prime	Non- Prime	Prime
				EL	HILL System		a balance i fan			$\{ v_{i,j} \}$	3 ×.,
MEDLINE &					5.5						
Backfiles	\$ 4.50	\$ 7.25	\$.01	\$.01	\$.01	\$.06	\$.12	\$.08	\$.12	\$15.00	\$22.00
TOXLINE &			•	•				• • • • •	•••		
Backfiles	62.60**	65.35	.01	.09**	.01	.06	.12	.08	.12	88.00	95.00
CHEMLINE	48.50***	51.25	.01	.10**	* .01	.06	.12	.08	.12	60.00	67.00
RTECS	39.00	42.75	.01	.01	.01	.06	.12	.08	.12	48.00	55.00
INFORM	4.50	7.25	.01	-	.01	.06	.12	-	-	7.00	10.00
INTROMED	4.50	7.25	.01	-	.01	.06	.12	-	-	7.00	10.00
All Other	4.50	7.25	.01	.01	.01	.06	.12	.08	.12	15.00	22.00
MEDLEARN	15.00	22.00	-	-	-	-	-	-	-	15.00	22.00
PDQ	15.00	22.00	-	-	-	•	-	-	-	15.00	22.00
				TO	XNET System		8				20
HSDB	56.50	60.25	.01	-	.01	-		.08	.12	68.00	75.00
TDB	56.50	60.25	.01	-	.01		-	.08	.12	68.00	75.00
CCRIS	56.50	60.25		-	.01		-	.08	.12	68.00	75.00
INTROTOX	56.50	60.25	-	-	-	-	-	-	2.	56.50	60.25

*Average searcher charges per hour may differ according to computer resources used and citations and characters printed online.

**Includes royalty charges of \$58.10 per connect charge and \$0.08 per citation charge for TOXLINE and its Backfiles (TOX76 and TOX65).

Per Page

Per File

***Includes royalty charges of \$44.00 per connect charge and \$0.09 per citation charge for CHEMLINE.

****CCRIS became available on February 25, 1986.

Pages

NLM OFFLINE CHARGES TO DOMESTIC USERS

MEDLINE and other databases TOXLINE, TOXBACK76, TOXBACK65 CHEMLINE. TOXNET (TDB, HSDB or CCRIS) RTECS

\$0.18 (Includes \$0.39 royalty charge per page) 0.57 (Includes \$0.48 royalty charge per page) 0.66 0.60 12. 0.41

Offsearches

All databases

\$1.00 (Plus page charges)

Automatic SDI Searches

Per Search Each Month " Barreland

SDILINE, HEALTH, CATLINE, CANCERLIT, AVLINE, POPLINE TOXLINE

11 \$1.00 (Plus page charges) 3.00 (Plus page charges: includes \$2.00 royalty charge)

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Federal, state, and/or local taxes are not included. Terminals and telephone/line charges are the responsibility of the institution or individual accessing MEDLARS. Current prime time is 10:00 am to 5:00 pm Eastern Time, Monday through Friday. All other time is non-prime time. .

1/ Notes on NLM Charges to Foreign Users: In general, foreign users under the online pricing algorithm are charged \$3.00 extra on the connect charge portion and \$0.10 extra per offline page, and are not charged amounts designated as royalties. These royalties are negotiated separately with and paid directly to the database producers and not to NLH by the coordinating online foreign MEDLARS center.

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NLM STUDENT CODE PROGRAM

The National Library of Medicine Student Code Program is designed to facilitate access to online information on the MEDLARS databases. Student codes are available for instructors and students, from high-school level through residency, regardless of the discipline of study. Institutions may obtain codes for student use for various courses or individual students may apply directly for a system access code.

NLM believes that many educational institutions will want to take advantage of this program, which offers: (1) reduced rates for NLM database use, and (2) "capping" or limiting of use by code to a specified number of connect hours.

Institutions may request codes for a one-year period and ask that a connect hour limit be placed on their use. For example, an educational department may return the enclosed paperwork and specify that it wants ten codes limited to 20 hours each for the year. An individual student who is not a participating in the NLM Student Code Program at the institutional level will be given a student code limited to a period of two years, without usage limits. Contact and S

Usage on student codes is billed at approximately 50% of either prime or non-prime online hourly charges. Offline prints will be available at regular charges. Royalty charges imposed on NLM for the CHEMLINE, TOXLIT, and TUXLIT65 files will be passed through to the institution or student receiving the bill.

The enclosed material includes a fact sheet on current charges and forms which should be completed and returned to apply for student codes.

If you have questions, please call the MEDLARS Management Service Desk at 301/496-6193 or toll-free at 800/638-8480. The MOUs and billing agreements should be returned to:

> MEDLARS Management Section Building 38A, Room 4N421 Building 38A, Room 4N421 National Library of Medicine 8600 Rockville Pike and the second states and the Bethesda, MD 20894 the state of the second state of the second

At the present time, student codes are limited for use within the United States. Interest charges equivalent to the current rates set by the U.S. Treasury (now 7% per annum) will be assessed on any accounts where payment is more than 60 days overdue.

> MMS/NLM September 1987 n 2

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MEDLINE OPTIONS:

A COMPARISON OF PRICES AND MODES OF ACCESS

MEDLINE is currently available on eleven search systems worldwide. This handout covers only the most popular search systems among UCLA faculty and staff.

	Comparison Chart:	MEDLINE Usage Charges	- * * ₂
Search System	Online Time Including Telecommunications	Online Printing of References	Offline Printing of References
BRS/Colleague (a)	<pre>\$.50/minute weekdays \$.34/minute evenings and weekends \$20/month minimum \$95 registration fee</pre>	<pre>\$.07/reference \$.02/titles only</pre>	<pre>\$.07/reference + \$.40/page + postage + \$3.00 handling fee</pre>
BRS/Search (c)	\$.64/minute \$75 password fee	\$.13/reference	<pre>\$.14/reference + postage + \$1.00 handling fee</pre>
BRS/Search via.UC Library Contract	\$.36/minute	\$.13/reference	\$.14/reference + postage + \$1.00 handling fee
DIALOG (b)	\$.73/minute	\$.05/reference	\$.20/reference + state sales tax
DIALOG Medical Connection (c)	\$.73/minute \$95 start-up fee	\$.05/reference	\$.20/reference + state sales tax
National Library of Medicine (e)	<pre>\$.40/min. average in prime time; \$.28/min. average in non-prime time. Prime time is weekdays before 2 pm Pacific time. These costs include moderate amounts of online printing.</pre>	Moderate amounts in- cluded in online time price. Larger amounts are accrue at: \$.13/1000 characters in prime time; \$.09/1000 characters in non-prime time. \$.25/page References with abstracts average 2.5 per page; References only average 6.5/page	
Paperchase (a)	\$.39/minute + \$.10/search statement	<pre>\$.10/reference only \$.20/reference with abstract \$.05/title only</pre>	\$.10/reference + \$2.00 handling

(a) search system offers menu-driven (user-friendly) interface only

) command-driven interface only

(c) choice of menu-driven or command-driven interface available

(d) available to UC faculty; application forms at Biomedical Library Reference Desk

(e) command-driven interface but see next page for user-friendly front-end software

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Front Ends for MEDLINE

GRATEFUL-MED

Price: \$29.95 + \$3.00 shipping and handling Producer: MEDLARS Management, National Library of Medicine Information: 800-638-8480 Brief Description: A very user-friendly software package for IBM-PCs or compatibles for searching MEDLINE at the National Library of Medicine. Provides menu driven mode in which user types search terms onto formatted screen.

Program will assist user in identifying appropriate subject headings. Program then logs on, performs search, downloads references to user's disk, logs off, and helps user evaluate the retrieval. Since online interaction is automatic, online time costs are generally low. In menu mode, the Boolean logic options are limited but adequate for most searches. Grateful Med may also be used in expert mode, where user must know native National Library of Medicine search command language.

MED-BASE

Price: \$399.00 Producer: Online Research Systems, Inc., 2901 Broadway Suite 154, New York, NY, 10025 Information: 212/988-3857 1-5 pm ET > ef Description: A sophisticated program for searching MEDLINE at the National Library of Medicine. No previous online search experience is expected from the user. Provides automatic logon, flexible Boolean logic options, guidance in effectively using the controlled vocabulary index terms in MEDLINE, cost accounting, and offline file editing and management functions. Through the "Autosearch" feature, the program can find articles similar to one already known or identified in a previous search.

SCIMATE SEARCHER

Producer: Information:

Price: \$150.00; substantial discounts for UCLA personnel on all parts of SCIMATE may be available through the Microcomputer Information Center oducer: Institute for Scientific Information, Philadelphia ation: 800-523-4092

Brief Description: Searches BRS, DIALOG, and NLM databases, including MEDLINE, with one simple menu driven interface. The same interface is used to search all the vendors; the program translates the interface commands into language understood by each vendor. Downloaded references may be manipulated with SCIMATE MANAGER (\$295.00) or edited into various bibliographic formats with SCIMATE EDITOR (\$195.00).

K-ference Division Louise Darling Biomedical Library, UCLA

October 1987