COMPUTER
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VIDEODISK

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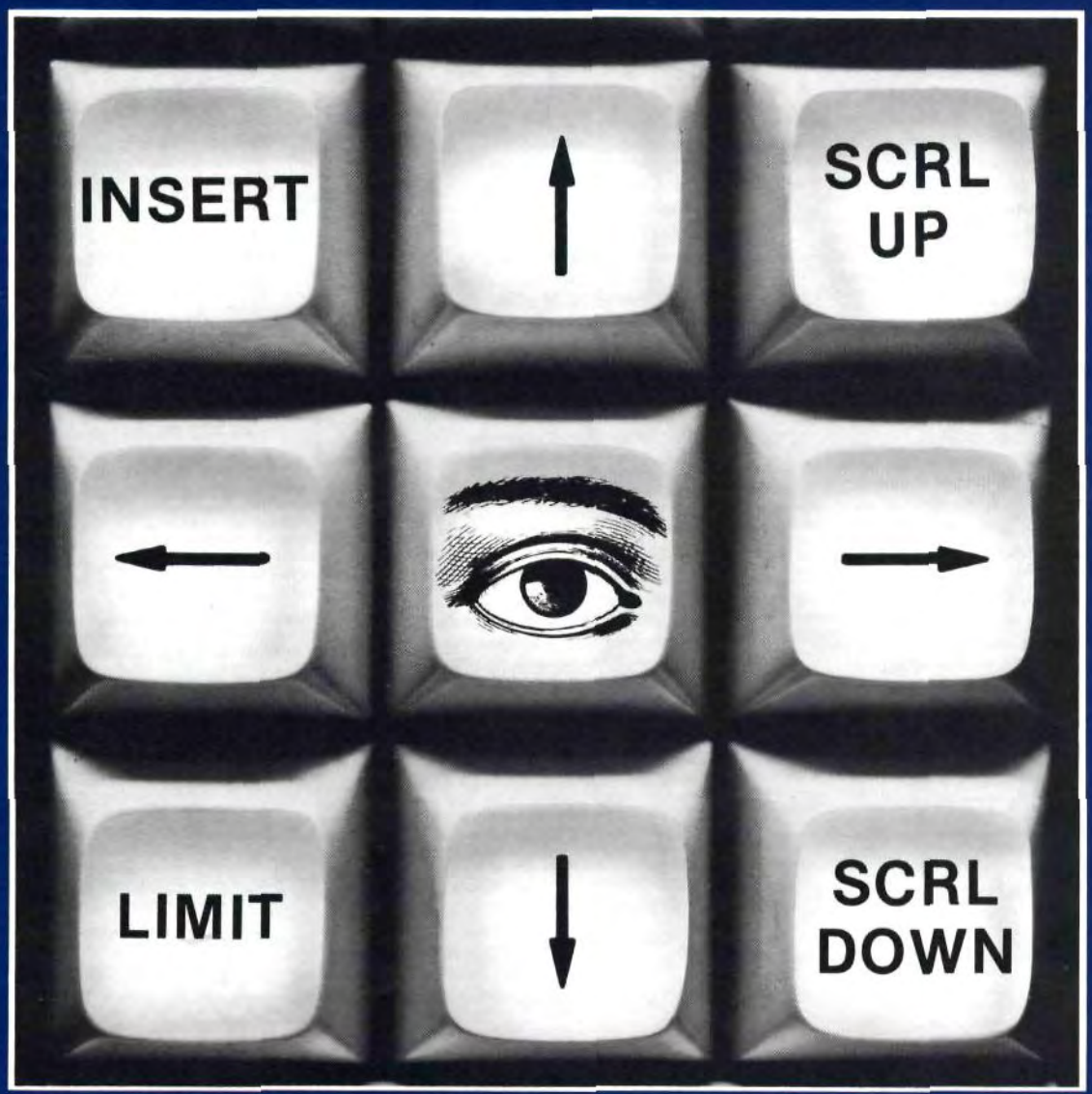

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JOURNAL OF OPTOMETRIC EDUCATION

DEPARTMENTS

The **JOURNAL OF OPTOMETRIC EDUCATION** is published by the Association of Schools and Colleges of Optometry (ASCO). **Managing Editor:** Patricia Coe O'Rourke. **Art Director:** Dan Hildt, Graphics in General. Business and editorial offices are located at 600 Maryland Ave., S.W., Suite 410, Washington, D.C. 20024 (202) 484-9406. **Subscriptions: JOE** is published quarterly and distributed at no charge to dues-paying members of ASCO. Individual subscriptions are available at $15.00 per year, $20.00 per year to foreign subscribers. Postage paid for a non-profit, tax-exempt organization at Washington, D.C. Advertising rates are available upon request.

JOE: Looking Forward

I am very honored to have been selected by ASCO's Board of Directors to be the Editor of the *Journal of Optometric Education*. Previously, we had a Chairman of the Editorial Council who served as Editor. That position was held most recently by John F. Amos, O.D., M.S. The Editorial Council also included Henry W. Hofstetter, O.D., Ph.D., Penelope Kegel-Flom, Ph.D., Thomas L. Lewis, O.D., Ph.D., and Robert Rosenberg, O.D., M.S. In addition, the editorial team included a 25 member group that comprised the Editorial Review Board. The Association of Schools and Colleges of Optometry and the *Journal of Optometric Education* owe much to the dedication and hard work of these individuals. Their efforts led to receipt of the 1983 Best Journal Award granted by the Optometric Editors Association.

The current editorial team includes a number of people. Patricia O'Rourke is the Managing Editor of the *Journal of Optometric Education*, and Lee W. Smith, M.P.H. serves as the Executive Director of the Association of Schools and Colleges of Optometry. Although not often recognized for his excellent work, Dan Hildt of Graphics in General continues to provide superb graphics and art work for the *Journal of Optometric Education*. Robert Rosenberg, O.D., M.S. has agreed to continue with the Abstracts, and Felix M. Barker, II, O.D., M.S. will again be writing the Resources Review. We will be streamlining the Editorial Review Board in the near future, and changes in that group will be announced as they occur.

We have discussed a number of short and long-term goals at a recent editorial meeting which we would like to share with you. We are looking forward to applying for inclusion in Index Medicus. There are many reasons for our desire to be added to Index Medicus, and we are presently investigating the requirements that must be addressed before we can be considered. The editorial team has formed a committee of leaders from optometric institutions and optometric libraries to prepare our application.

We are revising our "Instructions to Authors." This work is being done by Patricia O'Rourke, Lee Smith, and myself. The library science consultant for this project is Patricia Carlson, Librarian for the Southern California College of Optometry's Marshall B. Ketchum Library. When the project is finished, we will publish the "Instructions to Authors" in the winter issue of the *Journal of Optometric Education*. In addition, copies will be made available for prospective authors.

We are working on enhancing ASCO's already successful Sustaining Member program. This program is a mutually beneficial relationship between the opthalmic industry and optometric education. The *Journal of Optometric Education* currently has a section entitled, "Sustaining Member News" which brings information regarding new industry products and developments to our readers. The funds generated from the Sustaining Member Program support various ASCO programming efforts and this year made it possible to send the *Journal of Optometric Education* to all senior optometry students.

We are working to increase the numbers of JOE readers. We would like to develop more student readers and student support for the *Journal of Optometric Education*, and we will be looking at methods fo accomplish that goal. There are many optometric educators who have not subscribed to the *Journal of Optometric Education*, and the potential readership within the ophthalmic community of practicing doctors of optometry has not yet been examined. We will be working to get our message to these people, also.

We are constantly working to enhance the quality of the editorial content within the *Journal of Optometric Education*. While it is true that we have been receiving high quality manuscripts for publication, we are looking for additional contributions. One of the highlights of the *Journal of Optometric Education* has been the exceptional support from our authors. In order to identify and recognize superior efforts in optometric education research and writing, we are considering an annual award for the best scientific article in the *Journal of Optometric Education*.

The *Journal of Optometric Education* is a cooperative venture of the Association of Schools and Colleges of Optometry, our contributors, and readers. As such, and as the sole forum devoted entirely to optometric education, we are looking forward to continuing our commitment to editorial excellence in optometric publishing.

John W. Potter, O.D.
Editor
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Vision Trainer Donated to PCO

The Accommotrac Vision Trainer, a revolutionary new electronic instrument, has been donated to The Eye Institute of the Pennsylvania College of Optometry (PCO) by Joseph N. Trachtman, O.D., Ph.D., a 1969 PCO graduate. Dr. Trachtman invented and patented the Vision Trainer as part of his doctoral dissertation. After a prototype was created, Dr. Trachtman worked for seven years to develop the present high-technology, low-risk instrument.

According to Dr. Trachtman, most people who are nearsighted or farsighted have a focusing problem. Nearsighted people generally overfocus when looking at distant objects (thereby causing blurry distance and clear near vision), while farsighted patients generally underfocus when looking at near objects (causing clear distance vision and blurry near vision).

The Vision Trainer is used by a doctor to teach the patient, by sight and sound, how to voluntarily control the focusing, or ciliary, muscle of the eye through the process of biofeedback. The instrument hears a sound when the muscle is focusing properly.

Dr. Joseph N. Trachtman (right) presented the Accommotrac Vision Trainer to The Eye Institute of the Pennsylvania College of Optometry in January. Accepting the donation was Dr. Michael Gallaway, Staff Optometrist in the Lynch Pediatric and Binocular Vision Service of The Eye Institute.

Biofeedback is a natural process whereby a patient can learn to control a bodily process or function of which he or she is not normally aware, such as blood pressure or heart rate. When patients depend on corrective lenses for clear vision, the use of the focusing muscle decreases. Vision training can teach the patient quickly and effectively how to properly use the ciliary muscle. In addition to sessions with the instrument, patients are given a series of biofeedback exercises to perform on their own.

The Vision Trainer has also helped patients with nystagmus ("dancing eyes") and amblyopia ("lazy eyes") and can be used for sports vision therapy.

According to Michael Gallaway, O.D., Staff Optometrist in the Pediatric and Binocular Vision Service of The Eye Institute, clinical research projects involving the Vision Trainer will begin shortly. Depending on the results of the research, he said, the instrument may then be used for patients.

(continued on page 30)

SUNY, Adelphi Offer Joint Program

SUNY College of Optometry and Adelphi University in Garden City, N.Y., have signed an agreement of affiliation, which will offer six Adelphi freshmen the opportunity to pursue a Bachelor's and Doctor of Optometry degree in an innovative seven-year joint program beginning this Fall.

Under the cooperative venture, the selected high school students will be admitted by Adelphi and SUNY College of Optometry to a pre-optometry-optometry program of study. After matriculating at Adelphi for three years, they must pass the admissions standards for SUNY Optometry's rigorous, four-year professional program. The students will receive their B.S. or B.A. degree from Adelphi upon completion of their first year at optometry school.

Since the students will be eligible for reduced tuition through Adelphi's Trustee Scholarship, they will, in effect, pay two years' tuition for a four-year college degree.

"It is our intention to use Adelphi as a model for a number of similar programs with other colleges throughout the state. We're hoping that this program will more clearly identify 'pre-optometry' as a viable career choice," said Dr. Edward R. Johnston, President of the State College of Optometry.

Pictured signing the affiliation agreement between SUNY Optometry and Adelphi University are (seated l. to r.) Dr. Armstrong Starkey, Dean of the College of Arts and Sciences at Adelphi and Dr. Edward R. Johnston, President of the State College of Optometry. Standing are Dr. Michael Heiberger, SUNY Vice-President for Planning, Policy and Evaluation, Mr. James Noe, SUNY Vice President of Student Affairs and Ms. Ellen Hartigan, Director of Admissions at Adelphi University.

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The Computer Controlled Videodisk

Glenn G. Hammack, O.D.
Gerald E. Lowther, O.D., Ph.D.

A very recent development in media technology is the constant angular velocity (CAV) optical videodisk. This specific type of videodisk, which differs from home video system disks, has unique capabilities which make it well suited for use as an educational tool.

Glenn G. Hammack, O.D., is a research associate at Ferris State College of Optometry in the Advanced Technology Vision Education Center. Gerald E. Lowther, O.D., Ph.D., is a professor of optometry and head of the contact lens program at Ferris State College of Optometry.

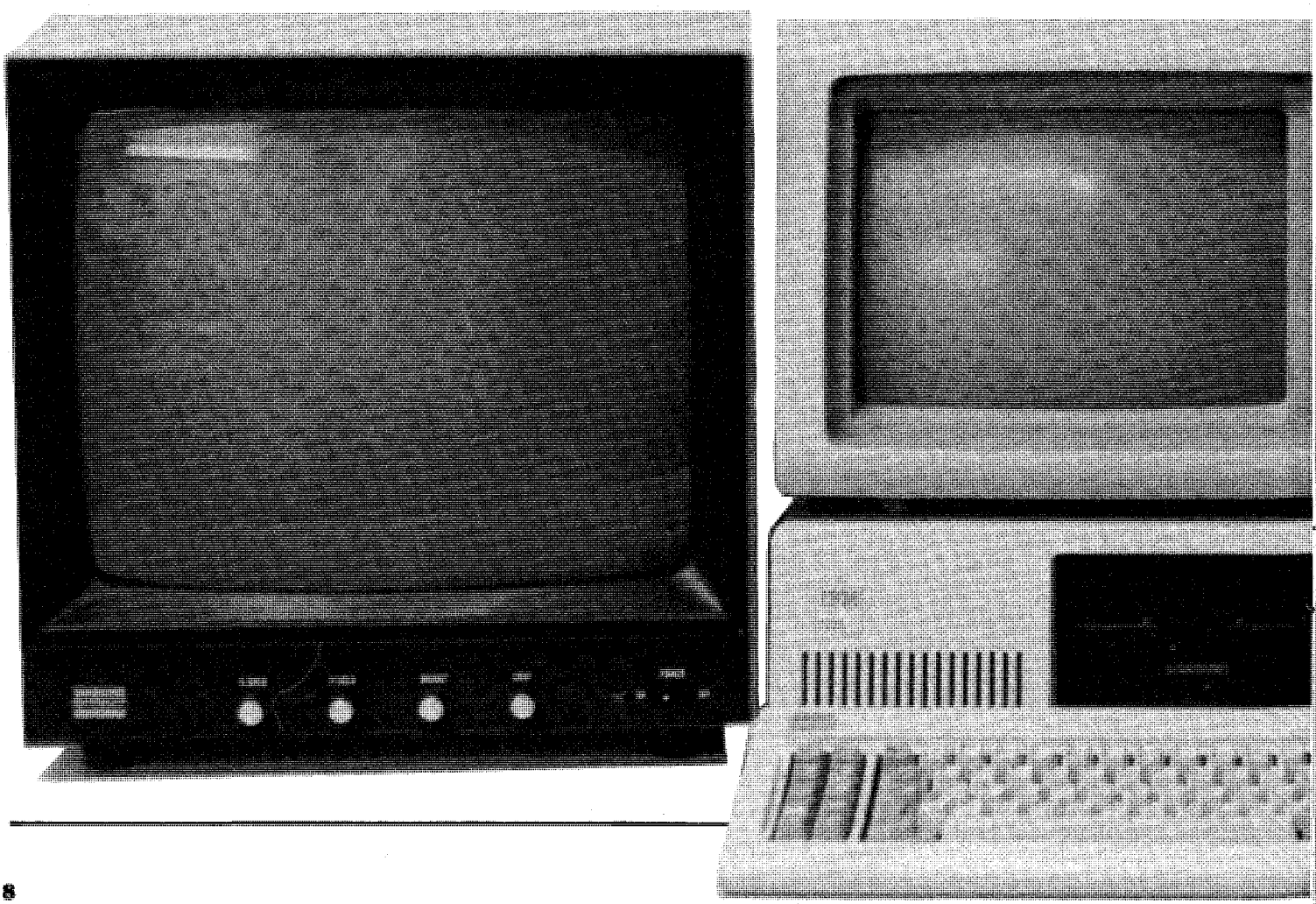
Systems are available that allow video imagery to be called upon by microcomputer. These systems, when used with educational software, can instruct, review and test a student on virtually any subject. They can also present an individual with simulated problem-solving situations with amazing realism. A program is currently underway to develop educational materials for this type of system on the topic of contact lenses. When completed, this will be the most comprehensive educational module ever assembled on the topic.

The Microcomputer/ Videodisk System

The units that constitute this new system each have their own unique characteristics. Their combination gives this system greater flexibility than any preceding educational media.

The Videodisk

The videodisk is a specially made plastic disk about the size of a record album. It is very similar to a record album in that it has two sides, and must



be turned over to play both sides. The disk is very rigid, being three times the thickness of a record album. The surface of the disk is silvered and reflects a dazzling display of colors when viewed in direct light. This silvered surface is covered by a thick protective layer of clear plastic, and this protective layer makes the disk very resistant to damage. Dust or small scratches in the surface of the disk do not affect the picture quality.

The videodisk stores images with small imperfections in the silvered surface. These imperfections are read by a low-energy laser beam in the player and are converted to a television signal. This television signal is a sequence of many similar still images, or frames, which when flashed before the eye at the rate of thirty every second, give the illusion of motion. In regular play, each side of the disk can hold thirty minutes of motion material, giving one hour of play time for the entire disk. Each side of the disk actually contains 54,000 still pictures (30 mins. X 30 frames/sec = 54,000 frames), or 108,000 for the entire disk. If the disk contains a movie, each frame differs from the one preceding only very slightly, so when played, motion is seen. However, the disk can also be made so that each frame is unique and has no relation to any other. In this way, the disk becomes a collection of 54,000 separate photos. Indeed, this is a very large amount of storage for such a small piece of plastic. It is this amazing amount of storage that makes the educational module so feasible, but it is the capabilities of the videodisk player that gives free access to all this storage.

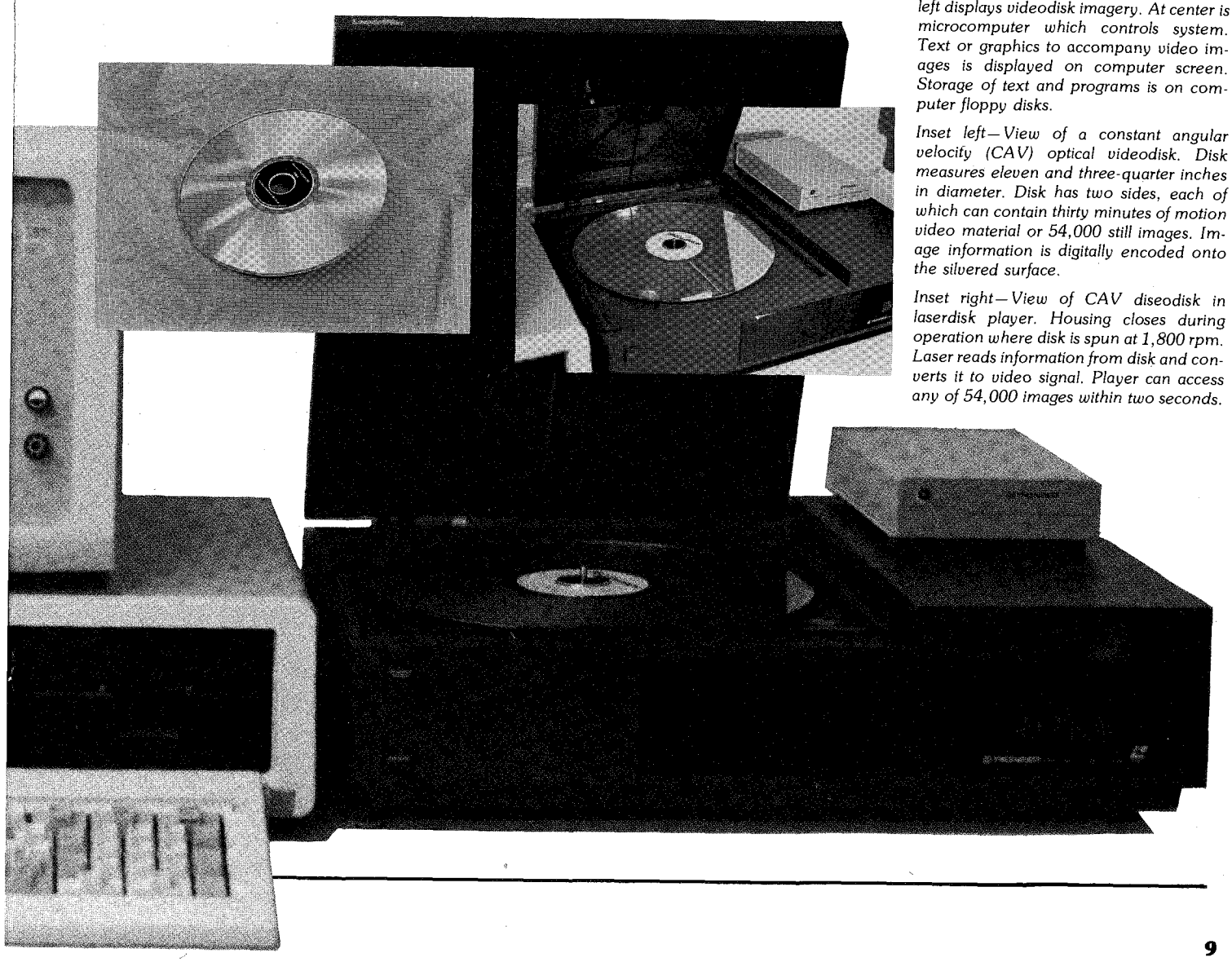
The Videodisk Player

The videodisk player looks very much like a record turntable except that the disk is enclosed in a special housing. The videodisk is loaded in the player just like a record in a turntable; the lid is closed and the player begins.

The main component of the videodisk player is a small laser that reads the information on the videodisk. Two very accurate electronic motors position the disk so the desired information is presented to the laser. The first motor spins the disk at a very accurate 1,800 rpm while a second motor positions a small lens/mirror to reflect the laser beam off the spinning disk. The reflected beam carries information that is converted into the video picture and stereo sound.

The player has four capabilities that make it very well suited for educational applications. These are freeze frame, frame search, automatic search-play-stop and computer control.

The freeze frame capability stops the player at any point of the videodisk with



View of microcomputer/videodisk educational module. Videodisk player containing videodisk is seen at right. Large screen at left displays videodisk imagery. At center is microcomputer which controls system. Text or graphics to accompany video images is displayed on computer screen. Storage of text and programs is on computer floppy disks.

Inset left—View of a constant angular velocity (CAV) optical videodisk. Disk measures eleven and three-quarter inches in diameter. Disk has two sides, each of which can contain thirty minutes of motion video material or 54,000 still images. Image information is digitally encoded onto the silvered surface.

Inset right—View of CAV diseodisk in laserdisk player. Housing closes during operation where disk is spun at 1,800 rpm. Laser reads information from disk and converts it to video signal. Player can access any of 54,000 images within two seconds.

picture-perfect clarity. This freeze frame can be held for an indefinite period because of the laser/optical method of reading the disk. There is no physical contact between the player and disk, and therefore no friction. Comparable videotape systems can freeze frame only for short periods, or the player will wear or break the tape. This freeze frame is a valuable capability because individual frames can be viewed for lengthy periods.

Frame search is a capability unique to the optical videodisk system. Due to the format of the disk itself, any picture on the disk can be referred to by an individual *frame number*. The frame numbers are sequential, like the pages of a book. In this way, the disk can be thought of as a book containing 54,000 pages. By instructing the player to call up a certain frame, that single image is presented on the video screen with perfect clarity and repeatability. Modern industrial players of the type to be used in teaching module applications can move from any specific frame to another, up to 54,000 frames away, within two seconds. Jumps covering hundreds of frames are instantaneous. This capability allows rapid access to any picture on the disk, valuable for quickly presenting images from different parts of a videodisk.

Automatic search-play-stop is a similar function to frame search except that instead of calling up a single frame, the player displays a motion segment of any desired length. Here the player is given the starting frame, and the ending frame. The player then jumps to the start frame and begins to play (display the images at 30 frames/sec.) until the ending frame is reached, where it freeze frames. This enables the display of any desired segment of video material at normal speed, slow motion (down to 1/4 normal), or fast motion (up to 5 times normal). In this manner the disk can present and repeat any motion sequence on the disk with the same quickness as the single frame search.

The capability that makes the player lend itself so well to educational applications is the ability to be directly controlled by a microcomputer. The commands for all the above-mentioned functions, as well as others, are relayed to the player via a standard computer communications line. This ability allows the capabilities of the player to be greatly enhanced by the speed and abilities of the computer. The act of controlling the player is a simple function and leaves the computer free to do other functions unhindered. It is this capability of high-speed communication that makes the educational module possible.

"As an instructional module, the system could be applied to any coursework in optometric education."

The Microcomputer

The microcomputer is the device that actually contains the educational programming. This programming is in the form of software, which brings up educational text sequences on the computer screen while calling up accompanying video images on the television screen. Since the link between the player and computer is via the standard RS-232C serial communications port, any make of computer can be used as long as it has the capability to store the programming. The software used in the system can be changed at any time, and many software programs can be written to access the same videodisk for different purposes. It is the excellent data handling and storage capabilities of the computer that give the educational module its flexibility.

The Educational Module

The educational uses of the microcomputer/videodisk system described above are many and varied. Greater flexibility in applications is achieved by forethought in collecting materials for the videodisk. Due to the great reserves of storage space on the disk itself, both single frame material and video segments can be placed on the same side of the disk. This type of disk format makes the system extremely useful as an educational tool.

In its simplest iteration, the system can be used as a great rapid-access archive for photographic and video materials. In this manner, a disk could be produced with thousands of relevant photographs or video segments on any subject matter. Computer software could then be written to recall the images on the television screen in relation to various parameters. The imagery stored on the disk would never fade or age as long as the disk remained in good condition. One example of this application would be its use in classroom teaching, much as a slide projector or videotape player. Sequences of slides and motion segments could be chosen from the videodisk prior to the class as regular slides would. This sequence could then be programmed and shown on classroom monitors, changing from one photo or motion sequence in the same manner as slides would be changed.

The next level of educational use would be its ability to present educational sequences of text and photographic/video material. In this manner, instructional sequences would be prepared by an educator for self-study use by students. The system could easily be arranged so that the educator need not be familiar with computer programming. Multiple sequences could be prepared, all accessing the same videodisk, to cover different materials at different levels. These sequences could be easily edited to keep pace with new developments in any field. Diversity of materials produced into the videodisk, itself, is the limiting factor in regard to the diversity of educational sequences. These sequences would be interactive training because the student must respond to a prompt to continue the sequence to the next screen. This interactivity could be expanded to the student having to give a correct response to a question in order to advance.

Extending the interactive capabilities to the next level enables the system to completely evaluate students in regard to presented materials. Multiple-choice examinations can be easily produced that use the videodisk imagery. These examination sequences could be produced in the same manner as the instructional sequences, i.e., assembled by the educator. The computer could easily keep records of student performance, as well as referring students to specific materials to review.

Perhaps the most powerful educational capability of this system is its ability to simulate diagnostic problem solving. With the capabilities of presenting both still and motion material, the computer can create realistic problem-solving situations. In this type of evaluative program, the student would have to respond to visual, as well as written, information and make the correct decisions to solve simulated problems. In case of errors, the system could inform the stu-

dent of his weaknesses and refer him to the relevant instructional materials. This ability would not only assist in education, but could prove valuable in other evaluative settings, such as state or organizational certification testing. The objectivity of such an automated system could be of great importance in this setting.

Advantages and Disadvantages of the Educational Module

The primary advantage of the system is its technical superiority over existing educational media. The ability to present both still and motion video material, for extended period, with instant replay, is unique to this system. The fast access speed and large storage capabilities exceed any present educational media. The system has all the flexibility and interactive capabilities provided by existing computer aided instruction (CAI) systems, but exceeds these systems in terms of presenting visual information. In all, the system could be the most comprehensive self-study educational and evaluative module ever devised.

Other advantages relate to the practicality of the system. The instructional or testing sequences can be created by the end user, and require no knowledge of computer programming. This allows the educational materials to be tailored to the level needed for a particular course. These sequences can be revised quickly and easily. The system can be operated by any microcomputer with communications abilities and the system can use any video monitor or television for the display of the video imagery.

The primary disadvantage of the system lies in the permanence of the produced videodisk. The production of the disk is such that once the disk is created, the video imagery on that videodisk cannot be changed. In this manner, obsolescence would be similar to that of textbooks. As mentioned previously, the programming software can be edited at any time or in any way, changing the text description or explanation of a phenomenon as knowledge changes. However, photos and motion sequences could not be added or changed other than to delete from use or rearrange the instructional material. Additions or insertions of new video material would necessitate the production of a new videodisk.

Other disadvantages relate to equipment and production costs. Microcomputers are currently becoming less costly as both the public and industry find new applications. The cost of the videodisk players is currently decreasing due to greater utilization of the systems by industry. However, current prices place the system cost well above the costs incurred by slide/audio tape or videotape systems. The initial cost of producing a videodisk for use with the system is high, but when production volume increases, the cost per disk drops sharply. Still, the overall cost to develop a system of this type is substantial. The cost to utilize the system would be much less. Typical user systems would be based upon a $1,500 videodisk player, with the costs of the microcomputer and television monitor varying with the individual units purchased. The cost of the videodisk and supporting software would most likely not greatly exceed the cost of existing text materials on the subject matter.

Optometric Applications of the Educational Module

The system as described would lend itself to many facets of optometric education. The possible applications are limited only by the rate of development of educational materials for the system.

As an archiving device, the system could be used to store and recall images for ocular anatomy, pathology or other subject material. This archive could be indexed in various manners so that images could be recalled by topic, patient name, condition, date or any other parameter. This would have many valuable applications in both classroom and clinic situations.

As an instructional module, the system could be applied to any coursework in optometric education. It could be used as instructional self-study alone, or as reinforcement of lectures. Videodisks and instructional software could be developed to cover most aspects of optometric education. Lessons could be learned from videodisk rather than textbook. The student's understanding of the subject matter would be enhanced by the use of visual images and motion sequences. Evaluative sequences could test a student's knowledge and even refer them to any needed review materials. Utilization of this type of module could greatly enhance the efficiency of the present classroom setting, leaving more time for personal instructor-student interaction and assistance.

The module's capability to simulate problem-solving situations would be of great value in optometric education. Programs could be writte that would simulate most clinical optometric situations. Binocular dysfunction diagnosis, rigid and hydrogel contact lens fittings, contact lens aftercare problems and pathology detection and management are just a few of the situations that could be accurately and realistically simulated by the system. Exposure to this type of clinical problem solving would allow the student to hone his clinical skills prior to actually working with a patient. This would eliminate some of the problems associated with inexperienced clinicians working with patients. This type of system would also be valuable in maintaining objectivity in evaluations of clinical skills.

The system would lend itself well to situations outside the academic setting as well. Programs could easily be set up for patient education in the office, instruction of new office personnel to optometric procedures and practitioner continuing education. State or professional organizations that do accreditation testing would find the system valuable for maintaining absolute objectivity.

In all, the microcomputer/videodisk educational module has much to offer in enhancing the quality of optometric education. The technology is currently available and provides a great resource in terms of educational possibilities. The development of educational materials for use with this module is the key factor in terms of utilizing this great resource to its maximum potential. Development of materials for this type of system is currently underway in various sections of the academic community. However, progress is slow and limited due to the expenses involved in such projects. Support is greatly needed to further the development of these valuable educational tools. Optometric education and the profession as a whole will greatly benefit from the capabilities of this new technology.

Acknowledgements

To date, support for this project has been provided by the following organizations:

- Ferris State College Office of Academic Affairs
- Dow Corning Ophthalmics
- Bausch and Lomb, Inc.
- Ciba Vision Care □

SUSTAINING MEMBER NEWS

Sustaining Members support ASCO initiatives on behalf of the optometric education community. Sustaining members are listed on the inside front cover of each issue. Membership is open to manufacturers and distributors of ophthalmic equipment and supplies, and pharmaceutical companies.

Bausch & Lomb Announces New Education Program

Bausch & Lomb announced a new program of support to optometric education at the annual meeting of the American Optometric Student Association held in St. Louis.

"We've revamped our educational program to provide more meaningful support to the schools," said James M. Callahan, vice president, marketing and sales, for Bausch & Lomb's Professional Products Division.

In addition to the company's ongoing program of scholarships, research grants and free contact lens consignment, Callahan announced the creation of four new positions, "institutional account executives." "With the breadth of services and products we offer today, it is critical that we work closely with the schools," Callahan said. Their primary responsibility will be to support teaching institutions, communicating regularly with them and keeping them updated about new products, services and programs.

In addition to the new positions, Bausch & Lomb announced a series of audio-visual presentations on practice management topics. The series, "Contact with the Future," is being presented to optometric students at Ohio State University, Pacific College of Optometry, Pennsylvania College of Optometry and Southern College of Optometry and will be national by the fall, 1985. "We've learned a lot from talking to practitioners over the years," Mr. Callahan said. "What we are trying to do with CONTACT is share what we've gained and expose the student to different management techniques and business principles."

Alcon Cleaner Now Indicated for all Soft Contact Lenses

Alcon Laboratories announces that its OPTI-ZYME™ ENZYMATIC CLEANER is now labeled for use with all currently available daily and extended wear soft (hydrophilic) contact lenses. OPTI-ZYME ENZYMATIC CLEANER contains pancreatin, a broad spectrum enzyme, and, according to Alcon, is the only enzymatic cleaner that removes all common deposits—lipid, mucin and bound protein—found on daily and extended wear soft contact lenses.

Allergan Awards Apples in Success Story Contest

Doctor Louis Persons, Fort Myers, Florida and Doctor Larry Fuerman, Atlantic City, New Jersey, were recently awarded Apple® Plus Personal Computers for their winning entries in the Allergan HYDROCARE® Cleaning and Disinfecting Solution "Success Story" Contest. Allergan sponsored the contest to learn how eye care practitioners successfully use Allergan products with their contact lens patients.

Persons' and Fuerman's stories were chosen from hundreds of entries because they related cases of good results both in comfort and convenience from the Allergan HYDROCARE Cleaning and Disinfecting Solution. Jim Robinson, Allergan's Regional Manager, presented Persons and Fuerman with Certificates of Success and told them that Allergan has long recognized the vital role the eye care practitioner plays in providing quality products and services to the patient.

Reichert Camera Chosen for Everest Expedition

Reichert Scientific Instruments Docustar Fundus Camera was on Mt. Everest with the 1984 American Everest Expedition.

Michael Wiedman, MD, an Ophthalmologist at the Massachusetts Eye and Ear Infirmary and amateur mountain climber, used the Reichert Docustar 22,000 feet up on the slopes of Mt. Everest to record the fundii of climbing team, served in a dual role. He went as high altitude team physician and as a scientist studying high-altitude sickness.

Docustar was selected to document Dr. Wiedman's observations because it was compact, light weight and gives instant results.

International Hydron to Open Hydron Puerto Rico

International Hydron Corporation, a leading soft contact lens manufacturer, announces the opening of Hydron Puerto Rico, Inc. International Hydron is the first in the industry to produce soft contact lenses in Puerto Rico. The company is also the first high-tech firm to pioneer into the island's remote, underdeveloped south-east region. The plant will be a high-volume producer of Hydron's new spincast spherical daily and extended wear lenses and will process and package for shipment to accounts around the world.

The Puerto Rican facility will serve as a manufacturing facility model for International Hydron's recently signed joint ventures in Shanghai and Peking, China. The Chinese venture is scheduled for completion by mid-1985, according to International Hydron President Martin M. Pollack who successfully completed the negotiations.

Multi-Optics Sponsors Varilux 20/20 Club

Multi-Optics announces that its "Varilux 20/20 Club" is open to eye care practitioners nationwide, all of whom support the progressive lens concept and use the Varilux as their lens of choice. Professional benefits to 20/20 membership include: a club made up of professionals sharing a common ideology; invitations to special educational and social activities preceding major optical events throughout the year; and the opportunity to select professional items from the Varilux 20/20 brochure. □

ASCO ANNUAL MEETING

Las Vegas Hilton Hotel

Las Vegas, Nevada
June 21-23, 1985

June 21-22

General Meeting and Reports

June 23

Luncheon/Symposium
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The Pediatric Optometry Program at the University of Houston College of Optometry

Jerome Rosner, O.D.
Joy Gruber, O.D.

At one time, children were taken to the optometrist only when there was an apparent problem—most often, reduced visual acuity and/or strabismus. This is no longer the case. What has been learned over the past three decades about vision development[1,2,3] and how to measure it[4,5,6] has changed this, as has a growing concern about the potential links between vision and school learning problems.[7,8]

It is no longer unusual for the parent of a preschool child to seek the services of an optometrist, simply as a routine precaution. Under such circumstances, the optometrist is faced with the obligation of obtaining valid clinical data from a young child, relating this information to certain key behaviors (e.g., school progress) and translating this data into effective recommendations. This is not always a formidable task, but it may challenge the practitioner who has never dealt with the preschool age group.

To provide appropriate instructional experiences for our students and high-quality care for our young patients, a pediatric component has been incorporated into the curriculum at the University of Houston College of Optometry. In addition to the didactic courses, two clinic units have been established. One, a primary care facility, is for children ages 5 through 18 years. The other, a specialty clinic, is for patients younger than five, as well as for older patients who display early-onset binocular anomalies that require clinical skills/knowledge beyond the average general practitioner. The purpose of this paper is to describe the operations of those two clinics.

Jerome Rosner, O.D., is professor of optometry and coordinator of the pediatric study tract at the University of Houston College of Optometry. Joy Gruber, O.D., is assistant professor of optometry and director of the Primary Care Clinic Module A (Children's unit) at the University of Houston College of Optometry.

The Primary-Care Unit: Module A

All third-year professional students rotate through the Children's unit (Module A), which is an integral component of the Primary Care Clinic of this college. The Module A faculty are, for the most part, members of the Pediatric Tract (department) and, as such, work together regularly both in the clinic and lecture hall. The value of this arrangement is obvious: their frequent interactions facilitate the kind of communication needed to produce a consistent, high-level teaching performance.

The examination protocol of Module A differs from the standard in certain ways, not so much in what is tested but, rather, in how the testing is done. The assessment is designed to pose eight questions: What is the chief (and related) concern? What background information is available to aid in appropriate diagnosis and treatment recommendations? How clearly does the patient see? What is the ocular health status? What is the refractive status? What is the binocular status? Does the (binocular) patient display adequate sensory-motor adaptability? Is the patient's developmental status appropriate for his/her age? Clearly, how these questions are addressed depends greatly upon the patient's age and communication skills; therefore, testing procedures must be modified accordingly.[9]

For example, Allen cards may be used to measure the visual acuity of a non-reading child, or trial frame (or hand-held lenses) retinoscopy may be needed in lieu of a phoropter because of patient distractibility.

In a significant departure from the standard, two perceptual skills screening tests—one visual, the other, auditory—are administered to all children ages 12 and under, regardless of how well they are doing in school. The rationale for this testing parallels the one that underlies blood pressure screening: (a) if undetected, and therefore untreated, a perceptual skills disorder, like high blood pressure, can be extremely debilitating; (b) proper treatment is often effective in remediating the condition; (c) valid screening is inexpensive in terms of time, space, equipment and personnel requirements.

In screening visual perceptual skills, the student/faculty supervisor may elect to use any of a number of available tests, such as the VMI,[10], TVAS,[11] Rutgers Drawing Test,[12] SDCT,[13] with the choice reflecting individual preference or the student's need for additional experience with a particular test. The auditory perceptual skills screening test of preference is the TAAS,[14] a short, easy-to-administer, valid probe of the kind of auditory skills required for satisfactory progress in a standard school reading program. Perceptual skills screening ordinarily requires about 10 minutes.

The chief responsibility for patient

care rests with the faculty person who, at the beginning of the semester, may find it necessary to conduct most of the examination. The balance shifts, of course, as the semester proceeds and the student acquires the clinical skills needed to function more independently.

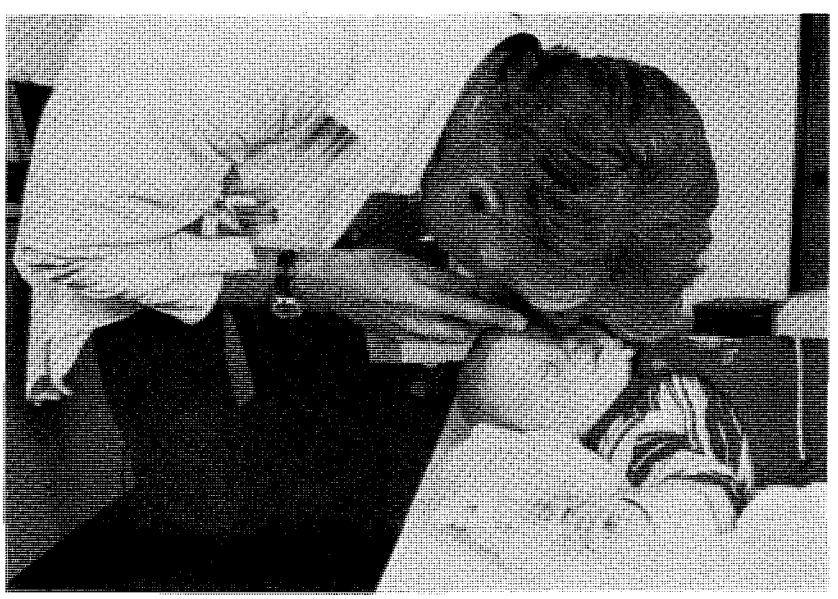
At the completion of the visit, the patient/parent is advised of examination outcomes and offered appropriate recommendations. If only glasses are called for, a lens prescription is issued and the date of the next visit agreed upon, e.g., twelve months hence. If a problem has been identified that requires additional attention, a decision is made as to whether to refer the patient elsewhere or manage the case in Module A. The decision is made by answering the following question: is this a condition that *all* optometrists should be able to manage (e.g., identification of perceptual skills dysfunction; treatment of vergence infacility, intermittent strabismus and other binocular anomalies that are not as complex as constant strabismus), or is it best managed at the secondary-care level? If the answer is the former, the patient will continue to be seen in Module A by the student and faculty who were originally involved—except, of course, when the case extends into a semester change-over.

This approach eliminates the need for a separate vision therapy clinic. Students learn to treat the conditions they have diagnosed and, thereby, avoid the discontinuity that characterizes traditional teaching clinics. Treatment usually comprises home-based, daily activities combined with weekly or bi-weekly clinic visits, where patient progress is monitored and the regimen updated. Hence, much use is made of portable equipment.[9,15] Primary responsibility rests with the faculty person who, in turn, delegates as much as is reasonable to the student.

In the event of a perceptual skills disorder, case management ordinarily consists of a written report to the child's school, informing the administration of the perceptual skills deficit(s) and recommending either perceptual skills remediation and/or appropriate compensatory education. The optometrist's role in this situation is defined as consultant and advocate. If the school does not implement the recommendations, guidance in perceptual skills remediation is offered to the parent, but this is viewed as less than optimal, particularly for children in third grade and beyond who usually need special instructional help along with perceptual skills remediation.[16] In either situation, the student/faculty person will provide ongoing monitoring of the child's status by way of monthly visits to Module A.

Module A, therefore, operates three days per week, much like an optometric office. About 1000 patients are seen each semester for a full eye examination; about 250 patient visits are scheduled for follow-up care—i.e., vision therapy, monitoring of perceptual skills disorders, etc. The advantage of the plan is that patients retain the same doctor (faculty person) from visit to visit—someone who "knows" them and their conditions, someone who has earned their confidence. Patients perceive the student's involvement as useful, understandable, even desirable; but they also know that "their doctor" remains in charge, looking after their interests. Students get the opportunity to observe, first-hand, the kind of doctor-patient relationships that develop in a professional practice, the communication patterns that are fostered under such circumstances, the impact on patient confidence, and the effect of the plan on the faculty member whose obligation it is to provide on-going patient care while also teaching.

"Treatment usually comprises home-based, daily activities combined with weekly or bi-weekly clinic visits, where patient progress is monitored and the regimen is updated."



Pediatric Specialty Clinic

This clinic is available to fourth-year students on an elective basis; all who apply are accepted. During the course of a year, approximately one-half of the class registers for at least one clinic session per week. As noted above, this clinic accepts patients ranging in age from one month through four years, and older patients who manifest an early-onset binocular anomaly that probably would not be treated adequately in a general practice office. Approximately 100 patients are seen in this clinic each month, about half of them belonging to the preschool age group, the other half to the group manifesting binocular anomalies.

The examination protocols of this clinic vary in accord with the patient's age and chief concern(s). With the preschool group, the same clinical questions are asked, but obviously, the techniques used to obtain the answers differ.

For example, visual acuity may be measured with a forced-choice, preferential-looking procedure,[17] or candy-beads, or a modification of one of the picture-card tests. Binocular status may be assessed with a Hirshberg test,[15] or a modification of the Frisby stereotest,[18,19] or, with the three and four year olds, the Random-dot E stereotest.[20,21] Like the perceptual skills screening in Module A, the Pediatric Specialty clinic also assumes the primary care obligation of screening for developmental lags in its younger patients with the Denver Developmental Screening Test.[22] The young child is examined as thoroughly as the older patient; only the procedures for conducting the assessment are different.

Patients with strabismus and other binocular anomalies are evaluated as they would be in a private practice. Tests are done only if they will provide useful clinical information—information that will aid in the determination of appropriate treatment recommendations. Approximately one-half of these patients enter a remediation program (spectacles, vision therapy activities, depending upon case circumstances); about 20 percent are referred for a surgical consultation; and about 30 percent are simply offered reassurance.[23] Those who are accepted for remediation will maintain their contact with the same student/faculty member as long as possible.

The students enrolled in this clinic become familiar with two important and unique patient groups—the very young and those with complex binocular anomalies—requiring special skills and knowledge. It would be an exaggeration to claim that the student becomes an expert after one semester, but he/she will have reached the level where additional experiences without faculty aid will probably be instructive and lead, ultimately, to expert ability. (We also conduct a Pediatric residency program in this clinic, but that is another story.)

In summary, the UHCO clinic arrangements described here appear to be effective in teaching *all* students how to provide appropriate services for school-aged children who present, because of reduced visual acuity, unstable binocularity and perceptual skills disorders, and in teaching *some* students (about 50 percent) the fundamentals in the care of preschool children and strabismics. □

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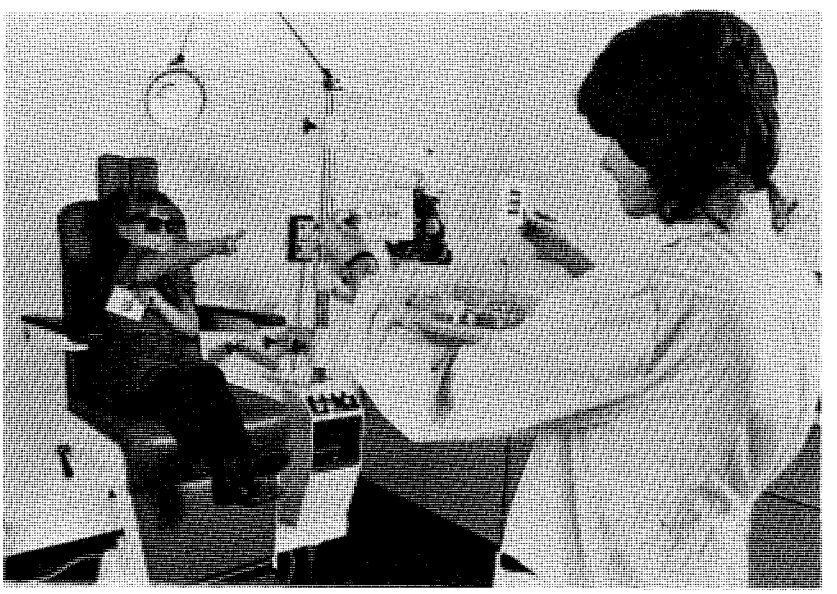
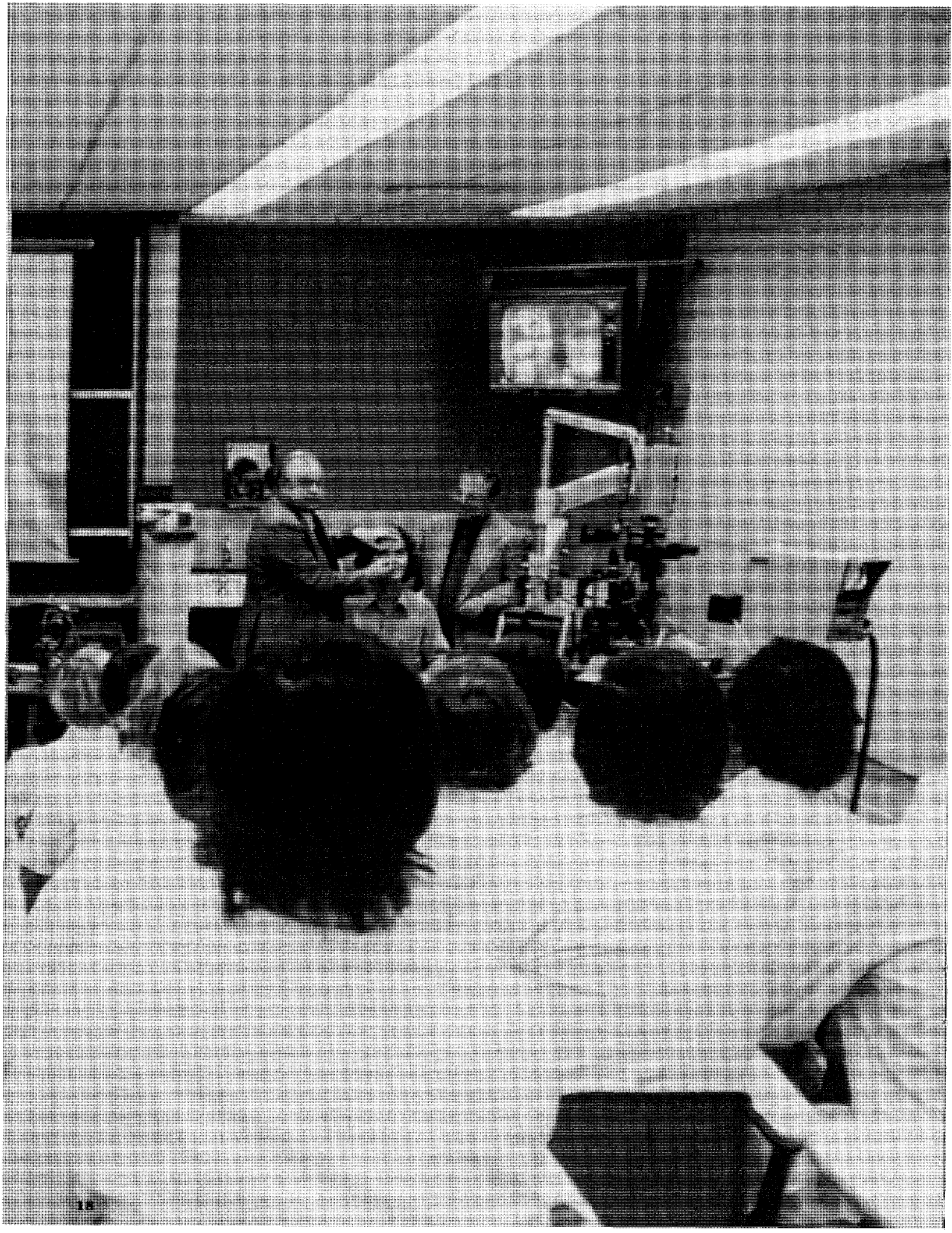
". . .visual acuity may be measured with a forced-choice, preferential-looking procedure, or candy beads, or a modification of one of the picture-card tests."





The Role of Education in the Evolution of a Profession

Edward R. Johnston, O.D, M.P.A.

Few can deny that optometric education has come a long way in the past two decades. Our programs can be compared proudly to the other health professions: our admission standards are equally as demanding; our faculty are similarly trained and qualified; our evaluation procedures are vigorous and thorough; our students are bright and could excel in any health curiculum; our institutions are similarly structured and methodically accredited; and we make every effort to keep our curriculum current with the latest information, techniques and instrumentation. The future of the profession, if measured by graduates from its schools and colleges and based upon these standards, looks optimistic.

But what is the role of optometry's educational institutions as far as giving direction to the profession's future, and how does that relate to the role and responsibility of the state and national boards? That question is especially timely at this juncture in the profession's accelerating evolution. This paper will attempt to outline those factors that are most influential in giving direction to optometry's, indeed any profession's evolution. It will also identify how these factors can work to inhibit the orderly evolution of a profession, as well as the curriculum that prepares the student to enter that profession.

Academic

The faculty and administration of our professional schools and colleges can be the most influential factor in directing a profession's curriculum. A faculty is made up of academicians and clinicians, who must keep abreast of the advances occurring in their respective disciplines. They, more often than anyone else in the profession, are charged with monitoring the pulse of change occurring as a result of research, as well as the application of new knowledge. Thus, educational institutions attempt to hire faculty who are representative of the various areas covered by the curriculum.

". . .the traditional method of educating health professionals is under severe attack."

Certain systems and structures exist in academe to insure that a curriculum remains dynamic and current. A departmental system, a curriculum committee, a faculty organization and a diversity of scientists, clinicians and educators with a promotion and tenure system, encourage each faculty member to bring to the fore his/her expertise for integration with others through the existing structures. It is because of this intentional interaction of a diversified faculty that different strengths develop at each institution. Although searches, promotions, tenures and allocation of resources can set institutional directions, they cannot guarantee the exact emphasis that a faculty will bring to an institution or determine which faculty member will be a leader in directing the curriculum. When an organized body of knowledge is championed by a faculty, that faculty is in the critical position to significantly mold a curriculum's emphasis, thus, contributing to a profession's evolution.

The academic environment is also shaped by educational philosophy, trends and new methods of teaching. Today, the traditional method of educating health professionals is under severe attack. With the explosion of information and the realization that we cannot "teach it all," there is an urgent need to limit our expectations that students must have all knowledge crammed into their heads. Rather, we must teach the student to think, to reason, to research information and to solve problems. We need to emphasize the integration of facts with clinical application.

The recently released report of the Association of American Medical Colleges, entitled *Physicians for the Twenty-First Century*, contains many timely recommendations, but the first is:

"In the general professional education of the physician, medical facilities should emphasize the acquisition and development of skills, values, and attitudes by students at least to the same extent that they do their acquisition of knowledge. To do this, medical faculty must *limit the amount of factual information that students are expected to memorize"* (emphasis mine).

Clearly, this recommendation must also be one which optometric institutions take seriously.

The realization that there are just too many facts and too much knowledge to absorb, and the need to assure ourselves that our graduates possess a cer-

Edward R. Johnston, O.D., M.P.A., president of SUNY College of Optometry, presented these remarks at ASCO's annual meeting, as part of the IAB, NBEO, ASCO symposium. Dr. Johnston will assume the presidency of ASCO for a two year term at ASCO's 1985 anuual meeting.

tain competency level in providing care has stimulated a renewed interest in curriculum development. A curriculum is set in place by first identifying those competencies that the students should possess upon graduation. Once that has been defined, two processes fall into place. First, we can determine learning objectives for each phase or tract within a curriculum. These then influence course outlines, sequencing and even faculty requirements. This also impacts upon entrance requirements and the admission process. The second process calls for these specific competency levels and learning objectives to be used to measure the student's progress at various points within the curriculum. These two methods dovetail easily to more effectively assure the definition of today's doctor of optometry.

Let me introduce another factor into this equation. Educational institutions have been criticized lately because the faculty rely too much on the ability of the student to prove how well he/she can regurgitate facts and knowledge as measured by the traditional Grade Point Average. Slowly, institutions are recognizing the importance of non-cognitive skills such as integrity, empathy, conscientiousness, humanitarianism and ethics, as well as interpersonal communication, data gathering, problem solving, etc. in both the admissions process and the professional program itself. These are often difficult to measure but are just as important as the capacity to store knowledge. Knowledge is obviously necessary, but it is not a substitute for desirable clinical performance and attitude.

Since academic factors influence curriculum development more than most other factors, it is critical that a faculty be knowledgeable and open. This is necessary in their own fields and also in the educational methodology that stimulates students to integrate material in such a way that clinical competency is ultimately achieved. Let me underscore one other reason why the academic setting is often the most influential factor in determining the direction of a profession. Not only is it important for a faculty to be diversified and current in its subject matter and in educational methodology, individual faculty members must likewise engage in scholarly activities and expose their work for peer analysis; an ongoing dialogue both formal and informal should exist within the academic community.

There is still one other element that creates a well-rounded faculty: the interplay between the academician and the clinician, especially the clinician who is in private practice and is also intimately involved in the college. Here, the "Ivory Tower" and the "Real World" come together to give the modern curriculum that cutting edge of both exploration and application.

Social

A second factor influencing a program and its curriculum is the need of a society. An obvious example of this is that phenomenon known as the "greying of America." With the shift in the age of our patient population, curricula are emphasizing gerontological materials to better prepare the graduate.

Different regions of the country may require that optometry schools pay particular attention to the special needs of their populations. Optometry's move toward the use of diagnostic and therapeutic drugs was, in part, a response to a societal need that was perceived to exist, especially in the more rural parts of the country.

Just as the researcher must be aware of what society, through its granting agencies, sees as areas ripe for investigation, an institution must monitor the long-range trends within the society so that it can modify its curriculum to comprehensively prepare graduates for the future. In essence, we are training our students for tomorrow, as well as for today. It is here that education must be a partner with the profession. Both the practitioner and the educator should invest in these modifications dictated by social factors. Thus, there is the demand for long-range strategic planning, coupled with constant monitoring and reassessment of direction.

Economic

This factor is multifaceted. One facet is the extent to which an institution's resources will allow it to develop its curriculum. If an institution is well endowed, it may be able to provide an educational experience that goes far beyond the core material thought to be the essentials of a program; or if an institution has limited resources, it may choose to go beyond the core material, but only in one specialty area. A student who knows what he/she wants might be as well off in a limited curriculum if that curriculum emphasizes his/her specific professional interest. The caution here is that we should not assume that all material presented at all institutions is part of a core curriculum; it is not.

A second consideration is the economic reality of the marketplace. If technology provides equipment that allows for technicians to perform functions in the office more cost effectively than if the professional were to do so, a curriculum must adjust to these technological advances. If a new procedure is developed that either eliminates a prevalent condition or more effectively treats that condition, the curriculum must adapt. If a profession's very existence is threatened because its services are no longer needed or have been taken over by a lesser trained (thus less expensive) provider, that profession either ceases to exist or finds a niche that is either unique or in which the training of services can be provided more efficiently. This, of course, influences a curriculum.

Here, too, educational institutions should maintain a meaningful, ongoing dialogue with the profession. These situations must be dealt with in concert and with an eye to the long-range implications and trends as they begin to evolve.

Political

Whether it is a developing profession or an established one, curricula make twists and turns that are the result of such seemingly irrelevant things as pride, prestige, equating one institution with another, strategy, economic advantage, etc. Professions have been known to expand their curricula to justify a legal change or a reimbursement advantage. In these situations, the educational institutions and the profession must again be partners.

On the other hand, an institution by itself, apart from either the profession or other sister institutions, may make a significant shift in the curriculum to hold itself out as being unique or in an attempt to influence others.

Legal

There is a fifth factor that in most cases is really part of the previous four —that is the law. Typically our state and federal laws are prompted by political or social realities. However, where this becomes a factor unto itself is after the social or political situation has long since disappeared but the law remains. In this case, the curriculum may have to retain

an archaic element if it is to prepare those choosing to practice under that law. This is unfortunate and often can retard a curriculum's advancement.

I have described five factors that influence the curriculum in health professional schools. Obviously, many situations can be attributed to more than one of these categories at one time. For example, the "greying of America" has implications that are social, economic, political and academic.

Let me summarize a few of the inhibitors to curriculum development:

1. Faculty who do not remain current in their subject area, thus leading to stagnation or faculty who are too parochial and overemphasize their own areas of expertise.

2. Obliviousness to the information and technological explosion and not modifying the teaching methodology to accommodate this fact, thus cramming the curriculum without impacting favorably on the student's ability to integrate and apply the knowledge.

3. Ignoring outcome measurements to evaluate the curriculum and to use as tools in curriculum development; curriculum modifications that are not properly evaluated are of uncertain value.

4. Ignoring non-cognitive skills of students as important ingredients in any health professional. These are often not even considered as part of our responsibility.

5. Archaic and restrictive laws that keep irrelevant material in a curriculum, or which restrict not only the curriculum, but also the profession itself.

6. State and national exams that are too detail-oriented, too concerned with the graduate's knowledge of facts and skills without an equal concern for the graduate's ability to integrate and apply that knowledge and skill to patients at a level of minimal competency.

7. Educational institutions—the profession and lawmakers who do not look for long-range trends and react appropriately.

8. A profession that does not recognize the importance of its educational institutions, thus not engaging in dialogue with, or in support of, these institutions.

Finally, the area of concern and one of the keys to the future direction of this profession is the role and relationship that will exist between the schools and colleges of optometry and the national and the state boards—specifically in the evaluation of the educational products, our graduates.

Evaluating Graduates

Schools and colleges evaluate students along every step of the four-year curriculum. In the first two years, the exams are detail-oriented in most cases. The exams are structured to insure that the student has mastered at least the minimal level of course work essential for entrance into the next phase of the curriculum. As the curriculum flows into the clinical areas, the institutions are more concerned with the integration of material and its application to patient care.

Most responsible educators will not "teach to the licensing exam," since that would inappropriately reverse the process. Unfortunately, licensing exams have evolved into one great "final exam" of detail similar to what was tested for in the curriculum during the student's first two years. A licensing exam should not be another vehicle to evaluate the graduate's ability to memorize unrelated facts; rather it should determine if graduates are capable of integrating material so that the public is protected and properly served. Our own NBEO is making significant strides in this regard as it attempts to develop a section in the newly proposed three-part exam, in which the graduate will be expected to problem solve. However, the first two parts still appear to be oriented to the regurgitation of facts, a requirement that is redundant, irrelevant, out of step with current educational trends and ineffective as a tool to "protect the public."

"As long as licensing exams continue to emphasize detail, we shall limit our educational institutions' ability for innovation. . ."

As long as licensing exams continue to emphasize detail we shall limit our educational institutions' ability for innovation and only delay the profession's natural evolution. As more and more is required of a curriculum, and as more is delegated into the realm of technology, decisions must be made to reduce and even eliminate material from the curriculum. Health professionals in the future, and even today, must and can delegate much of the technical work to lesser-trained personnel. The health professional should not be expected to be proficient with a piece of equipment that has been replaced by a more advanced one. The professional does not need to know the detailed theory that enabled many pieces of equipment to operate; it isn't important for the practitioner to understand the inner operations of a commuter or a refractor. As automated refractors, perimeters and fundus cameras become commonplace in the examining room, the theory courses that were once the backbone of many optometry sequences in our curriculum will be modified, some even eliminated. It is very likely that courses such as Geometric Optics will no longer be as detailed as they once were. BUT, if national and state boards continue to demand that graduates emphasize detail and "standard" routines of testing, rather than clinical problem-solving and flexibility in data gathering, the educational institutions will be restricted in their ability to be contemporary and creative in their curricula. For example, if an educational institution allows students to use a reference book when taking an exam, rather than memorizing G.O. equations, shouldn't a licensing exam do the same? Shouldn't the licensing exam limit its testing in the area of Geometric Optics to that which the graduate will be required to actually do in a real life situation? Better yet, shouldn't a licensing exam eliminate a section entitled G.O. or Theoretical Optics and instead test the graduate's understanding of optics in the context of a broader "problem-oriented" format, as presented in a simulated patient situation?

Clearly, the challenge today for both the schools and colleges of optometry and the licensing boards is to develop evaluation tools that measure relevancy and proficiency and at the same time allow for innovation and evolution to occur within the profession and the educational institutions. As a profession, we must look forward; as educational institutions, we must be responsibly creative; and as licensing and testing agents, we must protect without being restrictive. I see strong efforts being made in this direction, but we have a long way to go. □

A STATEMENT OF PRIORITIES AND PURPOSES

Unanimously adopted by the Board of Directors of the Association of Schools and Colleges of Optometry, March 21,1984.

Periodically, any organization should carefully review its direction to insure that the basic purposes established in an earlier time are still valid. More importantly, an organization must ascertain that it has, in the annual budget process, allocated its resources properly. It is far too easy to find oneself working to solve yesterday's problem rather than anticipating the future and undertaking projects designed to avoid or minimize the problems of tomorrow.

ASCO established a set of priorities and purposes in 1976 which were reviewed and reaffirmed in 1979. The Association's Board of Directors has again reviewed its direction and is, in general, satisfied that it has continued on a meaningful course. One new and important priority has been adopted—research and development. We are pleased to again present the ASCO Statement of Priorities and Purposes which will guide the Association's activities and the allocation of its resources in the coming years.

Lee W. Smith
ASCO Executive Director

Resource to the Federal Bureaucracy and Voluntary Agencies

In this area, the Association of Schools and Colleges of Optometry should act in cooperation with the Washington Office of the AOA, and when appropriate, with other groups of the American Optometric Association such as the Council on Optometric Education. ASCO engages in this regard to support the AOA's activities specifically in the area of lobbying in Congress and also to provide educational information and educational data to support the AOA activities. ASCO's involvement is to interact with agency and federal bureaucracies, including the personnel of these agencies, to enhance optometric education's involvement in these areas.

Important agencies that relate to optometric education on a national basis are:

A. Highest priority agency: Health Resources and Services Administration, Department of Health and Human Services.

B. Second level importance: Department of Education; NEI/NIH/Administration on Aging; Veterans Administration.

C. Other agencies in no specific priority order: Department of Defense; Department of Transportation; Office of Management and Budget; General Accounting Office; White House.

The Association, in dealing with state bureaucracy and agencies will restrict its activities in principle to those national issues that the Association has acted upon either by discussion or by Board approved action in the past. In this regard, requests from state agencies will be acted upon as appropriate but principally in line with already existing Board approved actions or guidelines.

Identification of Funding Sources for Optometric Education

The Association's responsibility in the area of identification of external funding sources principally relates to the improvement of the funding capability of all member institutions. To do this, the Association should approach identification in terms of federal and all other sources.

In the federal category, the Association has the responsibility to seek new funds and develop proposals to support the Association's activities. Further, it has a responsibility to seek funds and identify new funding mechanisms for the member institutions and to disseminate information to the member institutions directly.

In the non-federal category, the two areas of involvement of the Association should be (a) to assist states to increase or to develop financial support for optometric education, and (b) to seek from philanthropic foundations funds to support National Office projects or to provide information to individual schools on projects.

Profession Planning Directly Affecting Optometric Education

The Association shall develop an ongoing major effort toward long-range policy planning for the profession, from the viewpoint of optometric education, particularly with respect to the evolving health system organization and priorities.

The Association will work to achieve goals that serve member institutions and in the best interests of all members that are better accomplished collectively. The rationale is that national planning will allow maximum use of limited resources.

Possible areas of interest in national planning may be: Pre-O.D. Curricula; Postgraduate Education, including M.S. and Ph.D. degree programs and residencies; Licensure Issues; National Cre-

dentialing; Facility Development; Competency Standards; Faculty Development; Admissions, as it might relate to common procedures and a central application service; the Development of Centers of Excellence as it might relate to research emphasis or clinical emphasis; Allied Optometric Development; Library and Media Development; Institutional Research.

4 External Visibility for Optometric Education

The Association should maintain membership with appropriate organizations that would provide maximum external visibility. In this regard, representatives of the Association should attend annual or regular meetings of these organizations and be expected to report back to the Association as appropriate. Membership decisions in these organizations will be decided upon by the Association Board prior to any new affiliations being developed.

In addition to formal membership in these associations, the Executive Director will establish and maintain personal contact with counterparts in the other organizations.

The Association has a responsibility to produce publications that increase the visibility of the Association in an appropriate manner. The *Journal of Optometric Education* serves this purpose both for internal and external visibility.

5 Approved Special Projects

The approach to approving special projects is based on a two-fold mechanism of (a) timing, and (b) project identity. It is the responsibility of the ASCO Board to approve special projects and to determine priority and timing; except that urgent projects need only the approval of the President or approval of the Executive Committee.

To be considered for approved special projects they must benefit member institutions or optometric education generally. These projects will be funded from a reserve fund, the amount of which will be determined annually.

6 Central Repository

The Association responds to requests for information and stores relevant materials including:

(a) data, such as the COE reports of member institutions and other similar or comparable as become available or as generated;

(b) media, materials—Association related—that will have utility to member institutions;

(c) official minutes, documents, or project reports generated by the Association; and

(d) information of general interest in health education.

7 Internal Information Exchange

The Association will hold Board meetings as required by Articles of Corporation and other meetings which provide information exchange to the member institutions.

The Association will continue publications as appropriate for its overall development and for information exchange. Consistent with this, member institutions will continue to circulate publications of their own within the organization and will continue to forward similar publications to the National Office. The *Journal of Optometric Education* is useful if better papers are available and does receive more support by academic optometry. The *Journal*, when further developed, will be an essential part of internal information exchange.

For further information exchange it was felt that the Association has a responsibility to develop some form of abstracting service and capability to send timely information to all member institutions.

8 Research & Development

The Association should undertake to establish and foster optometry research, periodically review and publicize the priority areas for research, encourage the development of research expertise among its faculty and stimulate research interest in promising students.

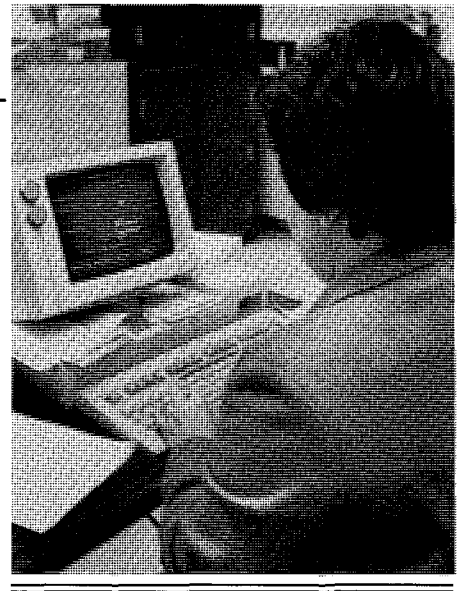
The Association will monitor research support opportunities from the Federal Government, industry, philanthropic foundations and other private sources and provide information to the member schools and colleges.

The availability of grants writing education and workshops will be published for the information of the member schools.

In this effort ASCO will cooperate with other optometric organizations with similar goals and interests.

Matchmaker, Matchmaker, Make Me a Match

Sanford Monsein, O.D.



Whatever happened to the college bulletin board with its sometimes not-too-neat rows of cards offering optometric practice openings? Or the classified ads presenting practices or new graduates in 25 words or less?

Like many other things in this high-tech world, they have been replaced by a computer.

This one is run by the American Optometric Association (AOA) and the American Optometric Student Association (AOSA) and it is called, appropriately, the AOA/AOSA Placement Service. It is free to AOA-member optometrists and fourth-year AOA student members.

With the press of a key, it matches optometrists who have practice opportunities—the providers—with those who need them—the seekers. Most of the latter are new graduates, but the service is also open to those leaving the military; seeking a different type of practice or practice situation; or wishing to change locations.

Optometrists on both sides who have made a successful match through the AOA/AOSA Placement Service sing its praises highly.

David W. Weiss, O.D., Chevy Chase, MD, applied to the AOA/AOSA Placement Service while he was still in school. In that way, he got an idea of what practice opportunities were available and where they were located so he could take state board examinations accordingly.

Dr. Weiss said the AOA/AOSA Placement Service let him know that "there are a lot of opportunities out there. . . . I was just coming out of school and, after passing the state boards, I found something within a week. And I don't consider myself unique."

Mark Mather, O.D., and David Dick, O.D., used the AOA/AOSA Placement Service to locate the young optometrist they needed to expand their practice in Muscatine, IA.

Proof that the service can work for optometrists who give it a chance, Dr. Mather said, "I think there are too many optometrists who think their practice is worth more than it actually is. You have to be realistic and you have to look upon it as taking someone into your business rather than someone intruding on your domain."

Brian J. Davis, O.D., the man Drs. Mather and Dick brought into their practice, said the AOA/AOSA Placement Service offered him the quickest way to find a position and also more variety of choices than the service offered through his school, the Illinois College of Optometry (ICO).

"The ICO placement service was used heavily by Chicago optometrists and, outside Chicago, mainly by alumni. The doctors I'm with went to the Southern College of Optometry. I probably would not have heard of this position if it hadn't been for the AOA/AOSA Placement Service," Dr. Davis said.

Samuel Lonsk, O.D., Linden, NJ, liked the variety of choices the AOA/AOSA Placement Service gave him when he and his son, Stuart Lonsk, O.D., wanted to add an optometrist to their practice. Efforts to locate someone by word of mouth and through a local newspaper advertisement were unsuccessful in generating applicants.

The AOA/AOSA Placement Service operates simply. Providers and seekers complete applications. That information is entered into the placement service computer, which then sorts out potential matches using two variables: geographical area of choice and type of opportunity. Participants are sent the appropriate data sheets. Turn-around time in the placement service office is usually only a day or two.

The placement service does not make the actual matches. It is up to the providers and seekers to contact one another. Unless they ask to be removed earlier, participants will receive data sheets for six months. They then have the opportunity to renew their participation and can stay with the service for as long as they like.

Providers have a confidentiality option, which permits them to receive data sheets from seekers without having data sheets on their practices sent to seekers.

Dr. Lonsk said he used the confidentiality option because "We ran into a problem when we hired an optician. We

Sanford Monsein, O.D., is chairman of the Membership Services Advisory Board of the American Optometric Association.

got people flocking in who were not qualified. This way, we could do the selecting. It was a personal thing. Sometimes you may not mind having your name publicized."

Steven L. Haleo, O.D., Tariffville, CT, said he used the confidentiality option because he "didn't want to be hassled" and did not want the search for an optometrist "to affect the flow of the present practice."

Since he received an estimated 1,000 data sheets, however, he recommends that practitioners not use the option and let the seekers make the first contact. In that way, the field can begin to be narrowed.

In Iowa, Dr. Mather did not use the confidentiality option. He received only 15 or 20 data sheets and contacted a couple of the seekers. The initial contact for the match that was made, however, came from the seeker.

For the data sheets, providers are asked to give such information as type of practice, areas of practice, size of practice and of drawing area, number of practicing optometrists within the drawing area, type of community being served, age of the practice, number of yers at current location, number of employees in the practice and branch location information.

Seekers are asked to provide professional details such as educational background, externship information, relevant past employment, military service history, licensing information, community and practice types of interest and practice areas of interest. They are also asked for personal data regarding age, sex, marital status and dependents.

Dr. Haleo cautioned seekers not to check off everything in the option areas on the form because it makes it difficult for providers to distinguish one candidate from another. He urged seekers to follow up the data sheets with resumes containing more details about themselves and to tell providers why they want to practice in the provider's area or why they have an interest in the provider's type of specialty practice.

Dr. Lonsk, on the other hand, said he found most of the information he wanted on the data sheet. He used phone interviews to narrow the field of candidates.

Seekers who keep all their options open may be concerned about getting enough practice opportunities to make a wise choice. That concern seems unfounded, even though there are more seekers than providers among placement service participants (686 seekers and 396 providers as of February 1, 1985). Dr. Weiss received about 50 data sheets and Dr. Davis about 40. Both were pleased with the number and variety.

"After I had taken this position, I sent letters to 10 optometrists who had contacted me about working in their practices," Dr. Davis said.

In addition to advertising in the *AOA NEWS* and the *Journal of the American Optometric Association,* the AOA/AOSA Placement Service is trying to increase the number of provider participants by including its registration cards with mailings of AOA membership cards to optometrists in practice.

The AOA/AOSA Placement Service is also open to certain non-member providers. These are limited to educational institutions, Chambers of Commerce, municipal officials, not-for-profit entities and employers of optometrists in administrative positions. They pay $35 to use the service for a year.

One placement service feature liked by both providers and seekers is the matching of individuals via geographical area of preference.

"Iowa was my first choice of state," Dr. Davis said. He added that he wanted a city close to a university town but not in one and he found it. Also, he likes being only a few hours' drive from Chicago.

Dr. Lonsk said he and his son were looking for an optometrist already located in their New Jersey area. Although applicants in other parts of the country expressed an interest in moving east, they felt it was an expensive proposition for all concerned. The optometrist they employed is a new graduate who lives within commuting distance of Linden. Despite their proximity, they would not have known about her had it not been for the placement service.

The type of opportunity feature also has advantages. Using it, Dr. Lonsk and his son were able to eliminate seekers who wanted to buy into their practice. Instead, they employed an optometrist and, if the working relationship develops well during the first year, she will be given the opportunity to buy into the practice.

The matches made with the aid of the AOA/AOSA Placement Service seem to be strong ones and beneficial to all involved.

By employing Dr. Davis, Drs. Mather and Dick were able to expand their practice with a second location. Dr. Davis is happy to be able to provide his services in a professional setting and in a community and state of his choice.

The Drs. Lonsk added the extra professional help they needed in their practice and the new licentiate they employed will probably have, within a year of her graduation, an opportunity to buy into a thriving professional practice.

Dr. Weiss and the optometrist who employs him have a unique situation. Because the employer is handicapped, Dr. Weiss sees all of the patients and is gaining great experience. His presence enables his employer to receive an income from the investment in his practice.

The AOA/AOSA Placement Service, then, is achieving its goal of helping to preserve and promote the independent professional practice of optometry. Optometrists who participate in it, either as providers or seekers, have everything to gain and nothing to lose.

To make a match through the AOA/AOSA Placement Service, contact Susan Kuper, American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141 (314/991-4100). □

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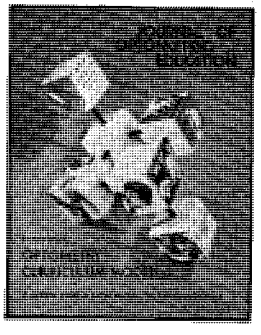

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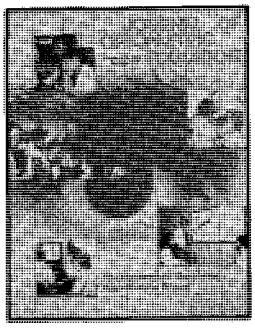
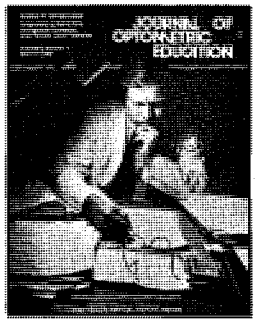




Optilens® , an adjustable, fluid filled lens for optical demonstration of thick lens systems. Manufactured by Optical Concepts Corp., RD 2, Box 273, Fleetwood, PA 19522, 215-944-0627, available in 5 sizes ranging from 100mm to 300mm dia., ($99.95-$499.95).

The Optilens® is a variable volume chamber that is closed on both ends by plastic disks that are rigid but flexible under pressure. By shortening or lengthening the sealed, fluid filled chamber with wing nuts the user can create a variable power biconvex or biconcave thick lens system. By varying the thickness of the plastic end disks, the thick lenses produced can have different curvatures at either end. One disk can be substituted by a flexible mirror surface to demonstrate the optics of focal reflection.

The Optilens® system is an innovative way to demonstrate the optics of thick lenses in teaching laboratories. Since the optical variables (i.e., curvature, index, and thickness) are adjustable, valuable demonstrations and quizzes can be presented to entire classes. Smaller diameter systems can be used for individual student lab assignments or projects.

Because of its versatility and illustrative capability, the Optilens® is an important laboratory tool for the demonstration and evaluation of optical principles. It is highly recommended to optics instructors for use in their courses.

Boys-Smith Pigment Gradation Lens, Designed by John W. Boys-Smith, M.D., Ocular Instruments, Inc., Bellevue, Wash. 98009, 206-885-1263, $390.

The Boys-Smith Pigment Gradation Lens is a standard Goldmann type 3 mirror fundus lens which has been modified by the addition of an internal color scale for angle pigment grading. The color scale is placed within the lens opposite to the gonioscopy mirror so that it is seen immediately adjacent to the angle view during the procedure. Using this lens, the clinician can more correctly grade pigmentation from patient to patient and can more accurately follow a patient over time.

Like the standard Goldmann lens, the Boys-Smith lens can be used not only for gonioscopy, but for central and peripheral fundus analysis using the two other mirrors and the central aperture. This conventional versatility combined with the added capability of pigment gradation make this lens an excellent value for the primary eye care clinician.

Ocular Differential Diagnosis, 3rd ed. by F.H. Roy, M.D., Lea & Febiger, Philadelphia, PA, 1984, 466 pp., outline form, hard-bound, $30.00.

Current Ocular Therapy 2, by F.T. Fraunfelder, M.D. and F.H. Roy, M.D., with 420 contributors, W.B. Saunders, Philadelphia, PA, 1985, 575 pp., hard-bound, $57.50.

Ocular Differential Diagnosis, 3rd ed., is a familiar clinical reference text which has been revised recently and is therefore worthy of review. This text systematically covers the ocular system one region at a time regarding clinical disease conditions that may be present. These findings (e.g. scleritis, chronic mucopurulent conjunctivitis, etc.) are then followed by an outline listing of potential causes to investigate. Each list of rule-outs is followed by pertinent literature citations for those interested in further readings.

The text is most useful for the clinician looking for a tentative diganosis to match the clinical findings collected or to provide a list of the diseases to be ruled out.

Current Ocular Therapy 2 is a clinical reference text which presents individual diseases in discreet 1-2 page discussions. Each condition is introduced in a paragraph or two followed by an in-depth summary of current therapy. These summaries are followed by a listing of the disease's ocular manifestations, precautions in treatment, comments and references.

The text covers the full range of ocular diseases as well as systemic diseases which have significant ophthalmic components. As a clinician, this reviewer has found these capsule summaries to be very helpful to confirm a tentative diagnosis based on clinical findings, especially while the patient is still in the clinic. The text then suggests specific diagnostic, therapeutic, referral or management options that are available to the clinician.

When used together, Ocular Differential Diagnosis, 3rd ed., and Current Ocular Therapy 2 complement one another well as quick references for the primary eye care clinician. Ocular Differential Diagnosis assists the doctor in interpreting findings, formulating a tentative diagnosis, and in listing conditions to be ruled out. Current Ocular Therapy 2 helps confirm the clinical diagnosis and suggests options for proper management.

Atlas of the Peripheral Ocular Fundus by William L. Jones, O.D. & Robert W. Reidy, M.D., Butterworths, Boston, 1985, 214 pp., illus., hard-bound, $69.95.

The Atlas of the Peripheral Ocular Fundus is a photographic compendium of peripheral fundus anatomy and pathology. The authors open with a discussion of examination technique and normal peripheral anatomy. This is followed by a large section on developmental anomalies and degenerations of the peripheral retina. Finally, individual chapters are presented on vitreous degenerations, retinal breaks and detachments.

Within the chapters, the specific clinical conditions are presented in 2-3 pages each. These presentations begin with a clinical description followed by a discussion of histopathology, clinical significance and references. Textual descriptions are clearly written, logical and thorough. Diagrams are liberally employed to help the reader's understanding of key clinical and histopathological concepts.

Of course, the highlight of the Atlas is the high quality color retinal photography. Each disease is presented with one or more very illustrative photos. These pictures are taken through the condensing lens with a camera mounted on the binocular indirect ophthalmoscope headpiece. With this arrangement, the reader experiences the same fundus view that would be seen clinically. This photographic technique also allows the presentation of fundus views under scleral indentation, which is often a key factor in the understanding of the vitreo-retinal basis of peripheral disease.

The Atlas of the Peripheral Ocular Fundus is a highly significant contribu-

tion to clinical ocular science. Because of its well organized, succinct format and exemplary pictures, it is an excellent in-office reference. Because of its clearly presented, well referenced explanations, it is an outstanding student text and should be required in our schools.

Diagnostic Procedures of the Eyelids and Surrounding Structures, Videocare TM Program #1 by Louis J. Catania, O.D., Primary Eye Care Educational Services, Dresher, PA, 1984. Includes two (VHS, Beta or 3/4") videotapes of approx. 30 min. length, accompanied by 11 p. tab-indexed reference manual. $225.*

Primary Care Treatment Procedures of the Eyelids, Videocare TM Program #2 by Louis J. Catania, O.D., Primary Eye Care Educational Services, Dresher, PA, 1984. Includes two (VHS, Beta, or 3/4") videotapes of approx. 30 min. length, accompanied by 8 p. tab-indexed reference manual. $225.*

*a 10% discount is offered for the purchase of both programs.

The Videocare TM series is a professional educational program designed to aid the busy primary eye care practitioner by providing videotaped instruction for use by both doctor and patient in the office. Program #1 is entitled Diagnostic Procedures of the Eyelids and Surrounding Structures and covers: gross external examination, digital tensions, bulbar retropulsion, exophthalmomatry, sinus percussion, lid eversion/retraction and other topics. Program #2 is called Primary Care Treatment Procedures of the Eyelids and deals with: epilation, tarsal foreign body removal, gland expression, lid scrubs, compresses and ointment use.

Both programs come with a videotape for the doctor and office staff in which the procedures are demonstrated. This tape is accompanied by a tab-indexed, quick-reference manual which outlines for each test or procedure the: indications, contraindications, technique, findings/interpretations, patient management, and office management. Both programs also come with a patient education tape explaining the in-office and home procedures which are being performed or recommended.

The production of these tapes is well done so that they are very effective for their intended purpose of patient and professional education. Because they are timely in their content, they would also be excellent as library reference material and for student use.

Quality videotape programs for professional and continuing education are a rare commodity indeed. The Videocare TM series answers this need by providing professionally produced, educationally effective video programs on relevant clinical topics. They are recommended highly for student and practitioner.

The OCL Practice Eye for Binocular Indirect Ophthalmoscopy, developed by Kevin L. Alexander, O.D., Ph.D., copyright, Optometric Consulting and Lectures (OCL), 1984, 3763 N. High St., Columbus, OH 43214, includes eye, 9 color fundus charts, & 14 p. ring bound manual, $64.95 plus tax, postage and handling.

Learning to use the binocular indirect ophthalmoscope (BIO) is a complex process requiring a good deal of practice. Due to the brightness of the BIO system, the procedure can be uncomfortable and even dangerous for the patient if performed repeatedly or for extended periods. The use of BIO practice eyes can be helpful to the novice clinician trying to attain the skill necessary to become proficient.

The OCL Practice Eye is an inexpensive and practical tool for this purpose. It is comprised of a small stand upon which mounts a small plastic cannister with an artificial corneo-pupillary aperture. Several color fundus drawings are provided in the form of strips that roll up and slide into the cannister. Each strip is calibrated to show the clinician how far into the periphery she/he is viewing. The OCL Practice Eye employs cotton wisps to simulate intra-vitreal floaters, and some fundus strips have elevated elements to mimic raised fundus areas.

The OCL Practice Eye is made from rigid plastic, so it cannot be used for scleral indentation. However, it has the advantage over conventional rubber eyes in its ability to provide a variety of fundus views. This feature makes it even more interesting and versatile as a tool in the teaching lab because it allows the possibility of including competency test items for students to identify using the BIO.

The OCL Practice Eye is a significant contribution to practical optometric science. It is highly recommended to the practitioner and student desiring to learn the technique of indirect ophthalmoscopy.

Volk Conoid Lens for Binocular Indirect Ophthalmoscopy, +15, 20, 25, 30, 40 and 60 Diopter powers, yellow or white, double aspheric design, case incl., Volk Optical, 7255 Industrial Park Blvd., Mentor, OH 44060, 216-942-6161.

Although described much earlier, the technique of binocular indirect ophthalmoscopy (BIO) first came into significant clinical usage in the 1950's with the development of the Schepens-Pomerantzeff head mounted instrument. In order to maximize the field of view with the BIO, larger condensing lens diameters were produced which were, at first, plano convex and later were made with one aspheric surface.

The Volk Conoid condensing lens employs aspheric optics on both surfaces to give the best possible resolution characteristics. Based on personal clinical use with the +20D lens, it is the opinion of this reviewer that the Conoid double aspheric system does, in fact, provide the examiner with clearer, less distorted peripheral and central fundus views over a larger surface area of the lens.

In addition, the lens is available with a yellow filtration characteristic which prevents light transmission below approximately 480 nm. This feature protects the retina against blue light or ultraviolet damage which can be important during extended or multiple procedures, particularly when the patient is aphakic.* Patients also seem to tolerate the brightness of the BIO procedure much better with the yellow filter than when a full spectrum transmittance lens is used. The yellow tint created no difficulty in perception or interpretation of pheripheral or central fundus pathology with the exception of interpreting nerve head pallor, in which case a regular white lens should be used.

The Volk Conoid BIO Condensing lens is a high quality optical component for use with your BIO system. It gives superior imagery and has the advantage of providing, when desired, a short wavelength filtration capability for the comfort and protection of the patient. It is highly recommended.

*Ham, W.T., et al, Action Spectrum for Retinal Injury from Near Ultraviolet Radiation in the Aphakic Monkey, Am. J. Ophthal., 93: 299-306, 1982. □

(continued from page 6)

VEF Eye Center of Oklahoma Opens

The Vision Educational Foundation has announced the opening of the VEF Eye Center of Oklahoma at Mercy Doctors Tower in Oklahoma City.

"We are proud to offer the optometrists of Oklahoma and the Southwest this extension of their practice, said Dr. Clarence L. McEachern, Chairman of the VEF Board of Directors.

William H. Dillon, O.D., D.O., has been named Medical Director of the diagnostic and surgical eye clinic, which provides secondary and tertiary treatment for patients referred by local optometrists.

"VEF is fortunate to have obtained a Medical Director with the qualifications and reputation of Dr. Dillon," said M.C. Mauney, Jr., O.D., President and Chief Executive Officer of the Vision Educational Foundation.

NCSOC and AOF Award Scholarships

The North Central States Optometric Council and the American Optometric Foundation have selected two senior optometry students to receive the 1985 Gary Gross, O.D. Scholarship. The scholarship program was established in 1983 to foster high standards of professional and ethical practice consistent with those which the late Dr. Gross exemplified.

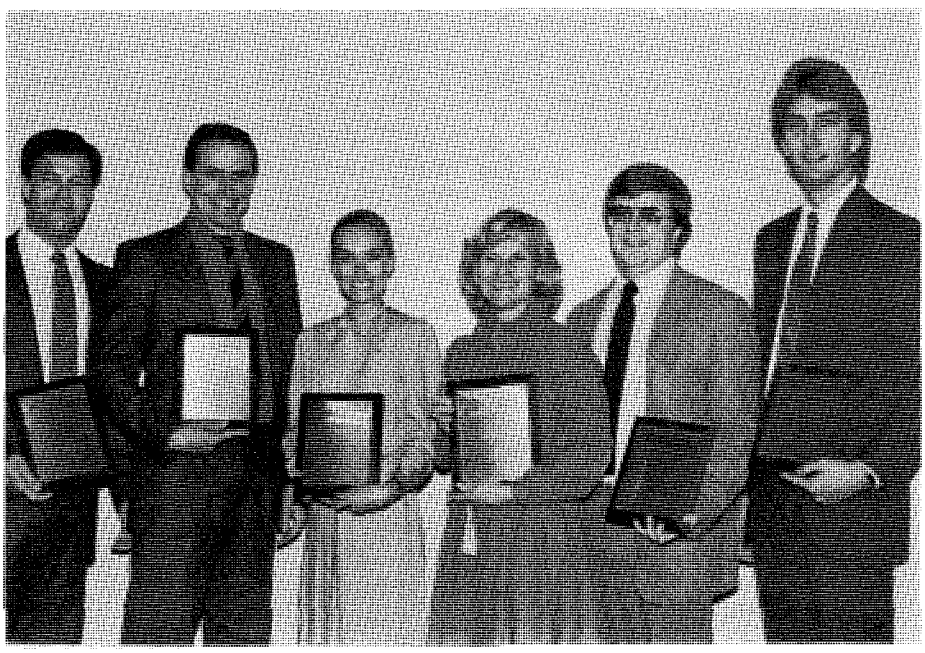
Based upon their essays on the subject of "Professionalism and Ethics in Optometric Practice," Douglas I. Totten of Ferris State University and Jon O. Olsen of Southern College of Optometry were selected from a pool of nominations made by the schools and colleges of optometry. Both students received a $1,000.00 scholarship and an award plaque at the recently concluded meeting of the North Central States Optometric Council.

New Trustees Announced for SUNY Optometric Center

Four new trustees have joined the Optometric Center of New York, the SUNY State College of Optometry's campus-related foundation, according to an announcement by College President Edward R. Johnston.

The trustees, distinguished business leaders, will greatly enhance the development efforts of the foundation. They are Robert M. Adams, president and chief operating officer of the Frank B. Hall Consulting Company, the employee benefits division of Frank B. Hall & Co., Inc.; Nancy S. Levine, former assistant vice president in the Hospital Bond Group of Standard & Poor's; David Wolfe, senior vice president of Neiman-Marcus, and Jose Alberto Rivas, president of DRG Design, Inc., a New York architectural firm and partner of Diguez, Gonzalez, Rivas in Caracas, Venezuela.

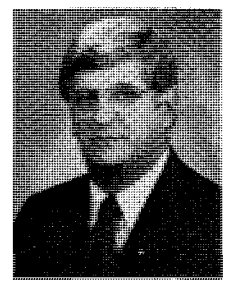
The Optometric Center of New York supports scholarships, research and patient care services at SUNY.



Award recipients from SCCO's Sixth Annual Student Research Symposium. Pictured (l. to r.): Second Place winners Mark V. Mingrone and Edward P. Williams; First Place winners Shelly Holcomb and Maryann C. DiLibero; and Third Place winners Kyle D. Krein and Steven Hilz.

Keeping Up with People...

Dr. Sylvio L. Dupuis, of Manchester, NH, was unanimously selected by the Board of Trustees of The New England College of Optometry to become the next president of that school. He will succeed Dr. F. Dow Smith, who is scheduled to retire in December, 1985.



Dr. Sylvio Dupuis

Dr. Lester Brackley, chairman of the Board of Trustees, remarked that Dr. Dupuis was "our most outstanding candidate for the position," and that the Board, the faculty and the administration of the College are all looking forward to working with him.

Dr. Smith, the outgoing president, expressed his enthusiasm about the appointment: "Dr. Dupuis will bring to the College a unique blend of optometric and administrative experience."

Dr. Dupuis received his B.S. and O.D. degrees from the Illinois College of Optometry. He served as Mayor of Manchester from 1971 to 1975. From 1975 to 1983 he was president of the Catholic Medical Center in New Hampshire, and in 1983 he was appointed by NH Governor John Sununu as Com-

missioner of Health and Welfare for the State of New Hampshire.

He is a Fellow of the American Academy of Optometry, a member of Beta Sigma Kappa, and is a founding member of the National Academy of Practice in Optometry.

Dr. Alfred Lit, distinguished educator and research scientist, has joined The Adolph and Ruth Schnurmacher Institute for Vision Research of the State College of Optometry, State University of New York, as a research professor.

A graduate of Columbia University where he received B.S., M.A., and Ph.D. degrees, Dr. Lit is a former professor in the psychology and electrical sciences and systems engineering departments at Southern Illinois University.

"Dr. Lit brings 40 years of work in psychophysics to our Institute. His knowledge will be applied to investigations in clinically related visual problems," said Dr. Edward R. Johnston, College President.

Dr. Lit's research interests include visual reaction time, binocular depth discrimination, visual psychophysics, visual electrophysiology and human engineering systems research.

Dr. Henry N. Peters has been named to the position of Director of Professional Development at the Vision Educational Foundation.

The appointment of Dr. Peters, who served as Director of Institutional Advancement for the Southern College of Optometry in Memphis, was announced by Vision Educational Foundation President Dr. Mal C. Mauney.

"We are delighted with Dr. Peters' decision to join our organization," Dr. Mauney said. "He long has been one of the nation's leaders in optometry and optometric education and will be of inestimable value to the foundation as it expands its services to optometry."

Call for Papers

The *JOURNAL OF OPTOMETRIC EDUCATION* invites educators, administrators, students, practitioners and others with an interest in optometric education to submit manuscripts for publication consideration.

The *JOURNAL* is the national quarterly publication of the Association of Schools and Colleges of Optometry (ASCO). Its circulation encompasses all U.S. and foreign accredited optometric educational institutions, as well as private practitioners, government leaders and others in the health care field. Established in 1975 as a forum for the exchange of information pertinent to optometric education, the *JOURNAL* is currently the only publication devoted entirely to the educational aspects of the profession.

The *JOURNAL* publishes scholarly papers, descriptive and timely reports, information and findings in the field of optometric and professional health education, as well as news of the member institutions of the Association of Schools and Colleges of Optometry (ASCO). Manuscripts are accepted for review with the understanding that they are to be published exclusively in *JOE*, unless other arrangements have been made in advance.

Authors wishing to submit manuscripts should request a copy of "Instructions to Authors Regarding Publication," from the *JOURNAL*. Manuscripts will be formally reviewed by experts in the selected subject area, and authors will be notified of reviewer recommendations.

For additional information, contact the *JOURNAL OF OPTOMETRIC EDUCATION*, 600 Maryland Avenue, S.W., Suite 410, Washington, D.C. 20024 / (202) 484-9406.

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