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NEWS

THE UNIVERSITY OF TEXAS
(SOUTHWESTERN)
MEDICAL SCHOOL AT DALLAS



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DALLAS--An imaginative method for helping freshman medical students here "bone up" on biochemistry is attracting attention among scientific educators as far away as the sunny Caribbean.

Specialists attending the Sixth Caribbean Chemical Conference in St. Augustin, Trinidad, this week (Jan. 5) saw a demonstration of a versatile new audio-visual study carrel developed by The University of Texas (Southwestern) Medical School's Department of Biochemistry to upgrade the scientific backgrounds of incoming students.

Dr. Donald S. Wiggans, professor of biochemistry at UTSMS, described the teaching method to the conference's session on chemical education. His presentation included the showing of an eight-foot-long working model of the study carrels, or booths, now in use at the Dallas school.

Some 113 first-year students at Southwestern currently are utilizing 12 of the compartmentalized study units, each of which contains a tape recorder, projector and small screen. Using earphones, the students hear taped lectures and view color slides to receive, in 10 lessons, what school officials term a comprehensive review of biochemistry fundamentals.

Separate controls enable each student to set his own pace of study, and to repeat portions of the material as often as desired.

The self-study carrel has been under development by Dr. Wiggans and Dr. Ronald W. Estabrook, chairman of biochemistry at UTSMS, for the past three years. Similar carrels also have been used recently by Dr. Wiggans in the teaching of chemistry at The University of Texas at Arlington.

Dr. Wiggans said the project represents a new approach to an old problem--how to fill gaps in the varied scholastic backgrounds of new students, which often are weak in chemistry, in order to prepare them for the rigorous medical curriculum ahead.

"An undergraduate major in almost any academic area is acceptable for entrance to medical school," he explained. "Some students bring a minimum exposure to chemistry, having completed the requirement as much as three years earlier in the freshman year of college."

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General class reviews of basic information are inefficient uses of students' and teachers' time, Dr. Wiggans said, and are "woefully inadequate" for the student who has been away from the subject matter for two or three years.

The flexible self-study method, on the other hand, enables each student to spend as much time outside the classroom as needed to achieve competency, with self-administered tests indicating when this level is reached.

Student response to the study carrel has been highly favorable, Dr. Estabrook said.

"They love it," he said. "It gives them independence and selectivity, letting them tailor their study to their particular needs."

The audiovisual lessons are not substitutes for conventional lectures and textbook studies, but are supplementary, providing "an additional means of communication with our students which permits the faculty to do much more with each student," he said.

Drs. Wiggans and Estabrook envision other adaptations of the audiovisual self-study technique--both during formal education and afterwards.

Packaged study units could be used to deliver instruction to students physically unable to attend class, Dr. Wiggans said. And the units could be a valuable self-improvement tool for students handicapped by inadequate educational backgrounds.

Dr. Estabrook foresees the physician, pretuned to the self-instruction method during training, using it during his professional years as well.

"We are trying to adapt the student to this type of teaching," he said, "so when he gets out in medical practice it will be a means of continuing his education and communicating to him the latest medical advances. For example, he could listen to taped lectures while driving to the office or hospital."

The carrel project, carried out with departmental funds at first, was boosted last year by receipt of a \$34,700 grant from the National Fund for Medical Education.