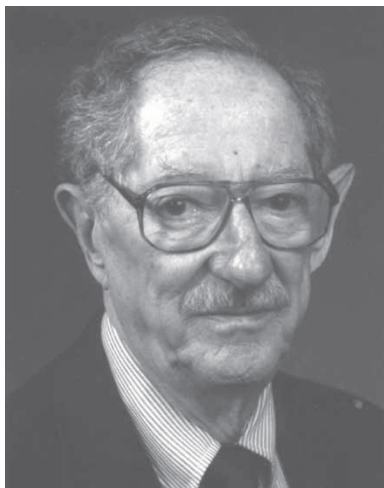


MAKING A DIFFERENCE

An Interview of Professor Stephen Abrahamson



Stephen Abrahamson is Professor Emeritus of Medical Education, University of Southern California School of Medicine, USA. This is an abridged, edited version of an extended interview I did with him via a questionnaire and consequent email exchanges at the end of 2002 and the spring of 2003.

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How were you first asked to be involved in medical education?

In the Spring of 1954 I was an Associate Professor of Education and Director of the Educational Research Center at the University of Buffalo (NY), when George Miller, an Associate Professor of Medicine was referred to my office. He said, “In medicine, we are accustomed to using specialists; perhaps you people in education can be of help with our problems in medical education?”.

I was willing to help but had no idea what went on in a medical school. George then asked if I would observe the scene under supervision and then give him an answer. I observed teaching activities over a period of 6 months—everything except anatomy lab and the operating room. I interviewed students and faculty, sat in on faculty committee meetings, and on and on! At the end of the 6 months, I said, “I think we can be of help”.

What is your background in the field of education?

At the start of my career I was a secondary school teacher and then an instructor in Secondary Education at Temple University, preparing young people to teach. I then entered a PhD program at New York University (NYU) in 1949 when there were a lot of ex-GI's taking graduate study on the GI Bill¹. Louis E. Raths, *Professor of Education and Director of the Center for*

Evaluation Studies at NYU's School of Education, was my major professor, "a true genius". He had four graduate assistants. They were paid absolutely nothing, but enjoyed working with that fantastic man. His special field was evaluation, but he was also doing remarkable research into Human Relations.

Thus, working with him, including a year of post-doctoral research at Yale (New Haven, Connecticut) led to an appointment at the University of Buffalo in 1952. While there I taught Human Relations (and later, Group Dynamics) but was almost immediately appointed Director of the Educational Research Center. I taught Educational Research, Tests and Measurements, and Statistics.

I thought that being a good teacher was an imperative for someone who was going to teach in a School of Education. Experience has shown me that a lot of the professors of education do not fit that description!

How did your collaboration with George Miller develop?

George got a grant from the Commonwealth Fund and we started the Buffalo "Project in Medical Education". The first year was a planning year and we brought in several colleagues from the School of Medicine and from the School of Education.

The design of the 'Project' was sufficiently interesting for George to get money to finance 10 faculty members to participate in year-long seminars. Each was headed by a team of two faculty: one from education and one from medicine. In that way, we had the depth and expertise of the education people and the experience and culture of the medical education world.

We conducted 10-day workshops in the summers of 1958 and 1959, reaching a total of 60 faculty. The Project attracted visitors from all over the country.

Lyman Stowe, M.D., Associate Dean at Stanford (Palo-Alto, California) had come to observe the 'Project' at Buffalo and was so impressed with the potential of what was going on that I was invited to be a Visiting Professor at Stanford in 1959–60. Stowe tried to arrange my return to Stanford on a full-time basis, but failed to get backing from funding sources.

I found it a very satisfying work experience; I liked the challenge of working with medical school faculty and felt I was ready for a career change. My wife and I discovered that we rather preferred the climate in California to that of Buffalo!

Peter V. Lee, M.D., was Associate Dean at the University of Southern California (USC) School of Medicine (Los Angeles) when he attended a summer workshop in Buffalo in 1959. Lee was impressed and urged the USC Dean to start a Department of Medical Education. I was hired as the founding chairman in February, 1963. Pete remained a constant source of good advice and information about people and activities.

What were the brilliant careers of some of your students at University of Buffalo?

Edwin F. Rosinski, was my first successful doctoral candidate. He did the formal evaluation of the 'Project in Medical Education'. He was a superb

investigator and did a fantastic and innovative job. Later he started a unit of research in medical education at the Medical College of Virginia (Richmond) at the same time (1959) as George Miller started one at University of Illinois (in Chicago). I feel that Edwin's role has not been recognized as much as it should be! In the 60's, Rosinski became Deputy Assistant Secretary of the federal Department of Health, Education and Welfare (HEW) and wrote legislation supporting research in medical education! How much more can one contribute to research in medical education!

During the first year of the 'project', **Hilliard Jason**, then a medical student, requested taking courses in education toward a degree during his senior year in the medical school. George Miller suggested a masters degree but I said that with Jason's 4 years in a medical school, he should get a doctorate. He did, but I fought the rigid hierarchy of the university because they said that a medical school was not a graduate school! Later, I became involved in Jason's dissertation research. Jason studied teaching practices in five medical schools and I did some of the observations in several schools. One of those was Western Reserve (now Case Western Reserve) where they had, in 1952, the first major curriculum change in the 40 years since Flexner. Jason went on to have a brilliant career.

What was your vision when you created the Department of Research in Medical Education at USC? What impact did you expect?

All of my work, from 1954 when I met George Miller, through the 2 years of seminars, and summer workshops, and working with Jason and Rosinski on their doctoral dissertations convinced me that there was a need in medical schools—those at least in which faculty were receptive—for some systematic study of medical education and some attempts at improvement of curriculum and instruction.

The early successes of Rosinski at Medical College of Virginia, and of George Miller at Illinois supported this view. George started with one specialist in education, Lawrence Fisher, and a little later, Christine McGuire. There were strong indications that educationists could make a difference. Thus, when USC beckoned, I was ready, particularly since I had already met and worked with about 20 faculty members in summer workshops.

My early role was that of a one-person unit and I tried to help faculty to improve their courses through applying educational principles to their teaching, and their testing. That led me to a systematic collection of data concerning teaching and learning at USC medical school.

There was still no real "Department". Two grants were obtained from the National Fund for Medical Education in 1964 and 1965 and two from the US Office of Education also in 1965. I soon realized that with these outside grants, I was able to bring more help inside USC!

By 1966, it was apparent that I needed more help at a professional faculty level so I got several much larger grants in 1967, one of which was to train those

with a doctorate in education to be able to work in a medical school. With four more faculty we truly became a Department.

By that time, my “vision” was to establish a strong support unit within the medical school with resources to help all of medical education through research and development.

USC faculty were responding. Part of the reason for success at home was that I insisted that my team existed to help the faculty achieve “its goals”. We did not have “answers”; we had “questions”, the most important of which was “WHY?”. We learned not to ask the faculty to “define objectives” but we asked “What do you want the students to be **able to do** when they complete your course?”.

By that time, we had a real contribution to make and we were doing so. I felt that we were accepted as a department and we had strong support from the Dean, Roger Egeberg, through his 5-year tenure: 1964–1969.

What aims were reached ; and which ones were not?

The main activity at USC, from 1964 to 1969, was the design of a “new curriculum” from a discipline base to an organ-systems base in the first 2 years. It was not much more than a reorganization of the basic sciences with a significant increase on emphasis on the patient. It was called a “patient-centered curriculum.”

Several things limited its success. The *planners* neglected to fashion an administrative scheme that would get power away from the department chairs and give it to the teaching faculty. In fact one more year in the planning was needed but exactly at the moment of implementation *we* lost our very supportive dean to the job of Assistant Secretary of the Health, Education, and Welfare (HEW) department of the federal government. He was not around to deal with the resistance of department chairs who felt threatened by the changes.

My department provided education for medical faculty—and faculty of other health professions leading to masters degrees in medical education and doctorates as well.

In 1965 the School of Medicine eliminated letter grades, still a step forward. They moved to Pass/Fail (Satisfactory, Unsatisfactory and Honors). Narrative descriptions of behaviour were required in the case of “U” or “H” and encouraged in all cases. But, soon, the system began to bog down as resistant faculty found ways around it all.

The Department of Medical Education also designed and implemented a system for improving the examinations (mostly multiple-choice format) and there is still a “Testing Service” available to the faculty. At one time the Testing Service had an item bank of more than 10,000 items carefully analysed for statistical reliability.

Time passed and I had to be satisfied with little gains and individual achievements within the school with regard to curriculum. Eventually, I

thought the School had a shot at introducing multiple curricula, including PBL, but this, too, was “tabled” by the chairs, never to be reviewed again.

What were some of the obstacles and constraints that were encountered and dealt with?

The factors working against the Department were many. The main obstacles to change, then, were the department chairmen and the conservative, intransigent faculty hard-liners who did their utmost to sink the “New Curriculum” which for 20 years and more they kept calling “New”!

The constraints were mostly administrative. An educationist can expect to achieve no significant results without support from the chief administrative officer—in the US, that is the Dean. Without a supportive Dean, all we could do was influence some faculty and make changes occur within their respective spheres of influence.

In my view, faculty can be divided into three categories: ‘Friendlies’, ‘Neutrals’ and ‘Hostiles’. The Department worked closely with ‘Friendlies’ and accomplished many things; they tried to influence the ‘Neutrals’ and move them into collaborative modes; they avoided the ‘Hostiles’, knowing that they could not change them one little bit.

The fact is that the critical and crucial factor is the Dean. An American medical school is NOT a democracy or anything approaching that. Roger Egeberg said, “There is nothing more important in a medical school than the education of medical students—and those who do not want to work with that concept are welcome to leave ... and I will help them find another job!” That helps!

With friends in high places, with friends on the faculty, it is possible to get some things done. And with lots of outside money, the Department had friends during the period from 1965 to 1980. Then things got steadily stickier. But we kept working at the bigger gains and became accustomed to celebrating small gains.

Why do you think, in retrospect, that the manikin, SIM ONE, was important?

In the summer of 1964, we got together a team of engineers along with the Chief of Anaesthesiology, Dr. J. Samuel Denson, and among us we dreamed up the idea of producing a simulator for the purpose of training anaesthesiologists. It was to be a life-sized, plastic-skinned manikin under computer control, capable of simulating a real, live patient. The simulator we proposed was to be as life-like as possible, capable of simulating breathing, and capable of responding to real operating-room equipment in real, life-like ways: changes in blood pressure, pulse rate, breathing rate, etc.

In October, 1964, we went to the National Institutes of Health (NIH) to try to enlist their financial support. We failed, but on returning to Los Angeles, I wrote a totally new proposal and submitted it to the United States Office of Education and received a grant of \$272,000 in July, 1965. The grant was to

support the design, construction and testing of a demonstration model. We named the simulator “Sim One” with the expectation of producing other patient simulators in the future.

It was built. It DID work. It DID train the residents more efficiently and save patients from potential risk and harm. I was in *Time*, *Newsweek* and *Life* magazines. I was interviewed on a television evening news programme. Sim One was used in a modified form from 1971 until about 1975 for the training not only of anaesthesiology residents but also of interns, medical students, nurses, inhalation therapists, etc., probably more than 1000 people, before Sim One “died”. One should remember that Sim One was produced as a demonstration model with little intent that it would last a long time and be used for a long time. Parts deteriorated and could not be replaced. After all, the whole original project was a test of feasibility and the follow-up project was a test of cost-benefit. Both were incredibly successful.

It seems these ideas were years ahead of their time. These simulation concepts are still flourishing! This is the case also of ‘live simulated patients’, an idea developed by Howard Barrows. I met Howard who was a participant at a workshop that Ed Rosinski and I conducted in 1962. Howard is one of the most innovative persons I ever met. One of his ideas was to use actors to portray the patients for teaching and testing medical students—at first in Neurology, and then in other disciplines. He called them “programmed patients” because “programmed learning” was a fad at the time. I got one of the first major grants in 1965 and Howard and I co-authored the first article in this field.

In the US most medical schools now use programmed patients (or “standardized patients” as they are now called) in assessment of medical students’ clinical performance. The NBME (National Board of Medical Examiners) wants to ensure that all doctors have good clinical skills. They will be using standardized patients as part of that total examination process for licencing medical doctors. A trial programme is in place and the test could become a requirement for all US medical students by 2004.

Howard took a sabbatical in 1968 at McMaster helping to implement the first-ever problem-based curriculum. He then stayed on there and was instrumental in that whole development.

What were some of your activities outside the USA?

The Department provided education and training for close to 250 visiting foreign fellows. Much of this success can be traced to my spouse and the caring mentorship she provided for all of the foreign fellows. One year, every Tuesday night six or seven foreign fellows were invited to my home to dinner—and they all learned much from each other as well as had a great time together.

Overseas I was an invited consultant to more than 10 different countries, starting in 1969 with an assignment at WHO Headquarters in Geneva, serving on a Study Committee. Then I had multiple assignments in South Korea, the

Philippines, Sri Lanka, Australia, and China as well as in Geneva and two assignments at the WHO Regional Office in Brazzaville.

Most of the assignments involved conducting workshops on various aspects of teaching and learning. Some of those, in Australia particularly, were of a research nature. I felt that my activities were valued and that I was able to make a contribution. However, I took the most pleasure in having learned so much more about other nations, other cultures, and other people.

Of course, learning much about medical practices in different cultures and their varied respective health-and-disease problems, it is clear that their preparation of physicians should be expected to be varied according to the roles expected to be played by their respective medical-school graduates.

Thank you for sharing your thoughts.

In conclusion it seems appropriate to cite a few lines from Stephen Abrahamson's book, "Essays on Medical Education".

"What we need today is the same thing I have been crying about for a number of years:

- (1) faculty interested in and concerned about education;
- (2) administrative leaders willing to be involved and providing real leadership in education;
- (3) a commitment to education of funds and resources necessary to 'do the job.'

I look back with pride on the many contributions of my colleagues in medical education; I rejoice at the growth in the number and quality of the educational research-and-development activities in medical education . . . ; I look forward to seeing what medical education becomes in the twenty-first century."

Note

- 1 A US federal program to encourage American veterans to go back to school after the second World War.