The training of cardiothoracic surgery residents is a topic that has garnered much attention from our Society over the years, and from time to time the topic is featured in STS presidential addresses. This installment of Looking Back, Moving Forward will review four addresses concerning this topic, separated in time by 40 years.

Dr. Donald Effler’s address, The Complete Thoracic-Cardiovascular Surgeon, His Special Training, [Ann Thorac Surg 1970;10:1-8] stated, “My effort is intended as a critique of the training establishment and a progress report. … All young men who offer their professional lives to the specialty of thoracic-cardiovascular surgery must be given the opportunity to become ‘perfectly equipped and skilled.’ Those responsible for their surgical training are under obligation to maintain high program standards and stay abreast of a rapidly expanding specialty.” His words remain as true today as they were in 1970.

Dr. Effler continued, “At this stage, two decades beyond groundbreaking, we have not been able to reach basic agreement as to what constitutes an ideal training program for the thoracic-cardiovascular surgeon.” He then follows that statement with five provocative questions: Should the Board of Thoracic Surgery continue its affiliation with the American Board of Surgery? Does the policy of double certification serve a useful purpose? Are two certificates of particular value to the surgeon who intends to specialize in thoracic-cardiovascular surgery? Are we training too many surgeons in thoracic-cardiovascular surgery today? Are the currently approved training programs adequate to train the compleat thoracic-cardiovascular surgeon?

In his opinion, the answer to each question is no. Dr. Effler argued in favor of reducing the basic general surgery requirements and extending the specialty training time and that training of the complete thoracic-cardiovascular surgeon must adjust to the growth pattern of the specialty. He concluded his address by calling on the Society to provide support and guidance to the Board of Thoracic Surgery.

Just the following year, in 1971, Dr. Will C. Sealy advanced the discussion in his address, Residents and Residencies, [Ann Thorac Surg., December 1971; 12: 561-573]. He stated that there were many forces at work including a revolution in education, new forms of insurance, group practice exerting new influences on the surgeon, the changing status of hospitals, an increased demand for services, and ongoing changes in technology.

Dr. Sealy stated that the basis for residency teaching must be the patient. He argued that training at that time was “obsolete because of both failure to adapt and lack of direction, resulting from diffusion of authority and control.” In his view, a good teaching institution needs to be balanced, and all services must provide excellent quality; each department should have a “spirit of inquiry, skepticism, and open discussion by all members … the library habit should be instilled … and instant consultation and open discussion of problems must be immediately available for trainees.” He advocated for the improvement of surgery residency programs and decried the fact that many specialty boards were promoting more complex examinations, even ones given periodically throughout the life of a surgeon.
Dr. Sealy asked, “How do we assure that [diplomates] are technically competent?” He said, that “one of the present-day criticisms of Board certification is that all diplomates are supposedly competent, senior consultants the minute they get their certificates. They may not be so.” He stated that a more strict appraisal of the training programs and careful selection of trainees would “largely remove the problem of the trainee who fails to achieve certification by eliminating nearly all the failures at the proximal end of the system.”

Forty years later, many of the issues pertinent to resident education were discussed by Dr. Gordon F. Murray in his address, *Though Medicine Can Be Learned, It Cannot Be Taught – The First 100 Years: Flexnerian Competency 2010* [Ann Thorac Surg 2010;90:1-10]. He cited recent publications from the Institute of Medicine concerning medical errors, and went on to advocate for “a continuum of surgical education that is sensitive to the patient’s vulnerability and advocates patient security.” Quoting Abraham Flexner, he explained, “Active participation -- doing things -- is therefore the fundamental tone of medical teaching.”

Dr. Murray recounted the fact that there is a shortage of applicants for training positions in cardiothoracic surgery, and one-half of the workforce is predicted to retire the same time as a doubled Medicare population. Efforts to inspire young people to enter the profession are ongoing, and that it is “critical that we encourage our own best and brightest to demonstrate to students at all levels that thoracic surgery is a noble, rewarding, and thrilling career choice.”

He reported that resident work hour restrictions and other factors have “jeopardized continuity of care and communication for house officer and faculty alike,” and advocated for changes in resident training to make it appeal to a diverse medical student body, specifically to attract talented women.” Dr. Murray argued that “time has been squeezed out of medical education and the doctor-patient relationship. Time that is crucial for developing the maturity of reflection and judgment on which quality patient care rests.” Fortunately, “there is still time for leaders within the profession to influence events so that both society and medical education might be better served.”

Dr. Douglas J. Mathisen took up many issues related to resident education in his address, *It Is the Journey, Not the Destination* [Ann Thorac Surg 2012;93:1404-15]. He reported on the alarming downward trend in applicants to cardiothoracic training programs beginning in the mid-1990s, and described the many subsequent changes in cardiothoracic resident education, including elimination of certification by the American Board of Surgery and the development of multiple pathways leading to certification by the American Board of Thoracic Surgery. He spoke of a recent survey of general surgery residents which indicated that residents choose cardiothoracic surgery because of the type of operations performed and the influence of positive role models. The number one concern: job availability and security.

Dr. Mathisen explained that we had not been putting the effort into selling our specialty, and then listed several of the responses to this problem, including scholarship opportunities to perform research or to attend annual meetings of our major societies, the development of new training paradigms, boot camp for new residents, the development of the Joint Council on Thoracic Surgery Education, and the initiation of the Educate the Educators program. Dr. Mathisen said, “Striving for perfection is what CT training and education should be about, and excellence will surely follow.” We need to prove him correct.

Discussing our shared experience involving sacrifice, residency training, practice, the training of the next generation of surgeons, the stresses and challenges we all face, and our collective volunteer spirit, Dr. Mathisen said it could all be summarized in a quotation from Shakespeare’s *Henry V*. “We few, we happy few, we band of brothers. For he today that sheds his blood with me shall be my brother.”

May all the brothers and sisters involved in the efforts of The Society of Thoracic Surgeons come together to heed Dr. Mathisen’s admonition that “training experts and focusing on quality improvement – that is our future journey.”