



# Five Recommendations to Foster a Love of Teaching

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## Abstract

How can educators foster a passion for teaching in a health sciences student who has never considered education as a career? The author recounts 5 experiences that were instrumental in shaping his own career as an educator. These experiences illustrate principles which may be used to encourage students to consider careers in education. Principles discussed include exposure to teaching opportunities while students are still studying the health sciences, recognition of students showing promise as teachers, role models, mentorship, and appropriate compensation for those in education careers.

**Keywords** Medical education · Medical students · Career choice · Academic training

I'm a neurologist. I teach neurology and neuroanatomy at the University of Hawai'i John A. Burns School of Medicine. I can't imagine that I'd be happy in my career if education weren't a significant part of it. Thirty years ago, I had a very specific list of career goals, and teaching was not on that list. It's not that I chose not to teach; it had never occurred to me to think about it. Things changed with time.

I would posit that people who love teaching will be motivated to pursue careers in education. How can established educators and our academic institutions help health science students who have never considered teaching grow and develop a deep love of teaching? I'd like to recount 5 experiences from my career to illustrate ways this can be done.

## Recommendation #1: Provide Structured Opportunities for Students to Take on the Role of Teacher

In medical school, I was in an MD/PhD program. This involved 2 years of medical school, 4½ years of graduate school, and then the rest of medical school. Like many medical students, during my medical school years, I made ends meet by taking out student loans. While in graduate school,

financial support was available if I was willing to work as a teaching assistant. I gave it a try, and enjoyed it. Without this experience, I would never have had the opportunity to consider a career in education. If we want to encourage today's health science students to be tomorrow's health science educators, they should be encouraged to try their hand at teaching now.

For degree paths that include many discrete didactic courses—like many of the foundational sciences—teaching assistantships work well. Teaching assistantships may be less optimal for medical school or other clinical programs. But there are other ways to have students take on the role of educator. Problem-based learning, peer teaching, and near-peer teaching strategies are often employed in the pre-clerkship medical school years, and each of these methods put students in the role of educators. Many institutions have their own unique way of having learners teach. At Case Western Reserve University, 3<sup>rd</sup>-year neurology residents are engaged as near-peer educators to help teach neuroscience to 2<sup>nd</sup>-year medical students, benefiting both the students and the residents [1]. Teaching of medical students or junior physicians during residency is an expectation of the Accreditation Council for Graduate Medical Education (ACGME), and is specifically mentioned in their Common Program Requirements for residency programs, section IV.D.1.c [2].

Despite the ubiquity of learners teaching in medicine, relatively few programs provide formal instruction in how to teach. Some medical schools have established formal “students-as-teachers” programs to train students as educators [3, 4]. There is evidence that these programs are effective

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in improving skills of the teachers, and also benefit those they teach [5]. There are other benefits as well; students who teach may develop better communication skills and may become better learners [6], and a correlation has been shown between teaching effectiveness and perceived clinical competence [7].

Putting learners in the role of teachers will not convince all of them to pursue a career in education. But there will be some who discover that they love it. They won't discover that unless the opportunity is provided.

### **Recommendation #2: Recognize the Students Who Show Promise as Teachers**

While in graduate school, I received a teaching award from the Biomedical Engineering department for my work as a teaching assistant. This was a surprise: I hadn't realized that such an award existed. The effect it had on me was dramatic: I felt pride in being recognized for something I'd done, and began to think that this was something I was good at. I was motivated to take the job more seriously, and do more than I had done before. This is probably when I first began to think of education as a field I might choose, rather than a task I would do because it was a job requirement.

A simple recognition like this can be reinforcing, and can foster enjoyment and self-motivation [8]. Recipients of teaching awards tend to report that the award has a positive impact, and feel it is beneficial to career advancement [9]. Teaching awards may provide motivation, and may be particularly beneficial for educators early in their careers [10].

There are other ways that budding educators can be recognized. Several medical schools offer a certificate of distinction in medical education, which is recognized at graduation and can be included in their curriculum vitae [11].

For established educators, intrinsic factors—such as a love for teaching—are considered to be more important in retention than extrinsic factors such as awards and recognition [12]. But recognizing teachers early in their careers can help feed that intrinsic passion.

### **Recommendation #3: Be a Role Model**

We've all had memorable teachers during the course of our education. Some are memorable for the wrong reasons, but can still teach us something. I recall a small number that made me think, "I could do better than that," or "If I'm ever teaching a course, I certainly won't do what this guy's doing." Fortunately, these teachers are the exceptions. I remember many more who loved what they were doing, and it showed. Their enthusiasm was contagious; they would get their learners enthused about the topic. Of these, there were a handful

who were so inspiring, it made me want to do what they were doing. Neuroanatomist Charles Haun, neuromuscular medicine specialist Bashar Katirji, and neuropathologist Mark Cohen are some of the instructors who inspired me.

Role models can influence students' career choices as well as shape their professional behavior [13]. Students see the example set by their instructors, and from that example form their impression of the expected norms, values, and behaviors of the profession [14]. This set of impressions has been termed the "hidden curriculum." Some authors have suggested that medical schools should formally train instructors to manage this hidden curriculum [15, 16]. But each of us remains responsible for the example we set.

To encourage our students to pursue careers in education, we as teachers should strive to set the best example we can.

### **Recommendation #4: Provide Mentorship Opportunities**

When in fellowship, I lined up a job that would start the following year. A significant part of that job would involve teaching residents and medical students. David Preston, the residency program director at Case at the time, made a point of taking me under his wing and showing me how he ran the residency program. At various times throughout the year, he would have me help with lectures, and gave me a lot of helpful advice about being an educator.

A mentor is not simply a role model. A mentor provides personal guidance and influence in shaping a student's career path and values [17]. Mentor-learner relationships are often serendipitous, but many medical schools have established mentorship programs, matching students with instructors who can provide advice and guidance. Some of these programs also encourage students to pursue careers in academic medicine. Mentorship programs have demonstrated benefits to the students, from improved performance in medical school to improved self-rated overall well-being [18, 19].

### **Recommendation #5: Recognize That Teaching Has Value, and Compensate Teachers Accordingly**

It is believed that salary is not as important a motivator for educators as an intrinsic love of teaching [12]. For those who have not yet developed that intrinsic drive, one of the biggest obstacles to entering a career in medical education is that it doesn't pay well compared to other practice options open to a physician. I have heard medical students say that they might consider a career in academic medicine, but were discouraged by the low income. Even in many academic institutions, administrators look at the relative value units (RVUs)

generated by seeing patients as the sole or primary metric of the value of the employed physician. I have observed this—either in my own practice or the practices of those who taught me—at nearly every institution I’ve been at.

For the first several years at my current position, this was a recurring issue. As “Director of Neuroscience Education” at the Queen’s Medical Center, I was expected to teach. But I was also expected to generate similar RVUs to neurologists who did not spend significant time teaching. So my time teaching was whatever time I could fit in. Balancing the needs of the medical school, the needs of the hospital that employed me, and my physiological need for sleep always left at least one party unhappy.

Recently, a lot of things changed. The neuroscience department at the hospital has a new department head, who is very pro-education. The medical school and the hospital came to a new arrangement that merged their faculties. Consequently, some physicians now have protected time during which they are expected to teach, with more realistic RVU goals that reflect this expectation. This has made my job easier and more enjoyable in countless ways.

Medical students take many things into account when choosing their eventual career path, but income is certainly one of the factors they consider [20]. There are several challenges unique to a career in medical education. Salaries in medical education tend to be lower compared to their non-teaching peers [21]. These challenges may discourage students who might otherwise pursue a career in education.

There are joys that come with medical teaching that aren’t found in routine clinical practice. Every year, I look forward to my neuroanatomy class, and to seeing a new group of students develop an understanding of something I’m passionate about. And there is nothing like seeing a former student return as a colleague.

It’s the joy of teaching that keeps us in teaching. But there are things we can do to help our students discover that joy. As educators, we may not be able to influence our institutions to increase compensation. But we can act as role models, we can recognize students who have talent as teachers, and we may have opportunities to act as mentors.

## Declarations

**Competing Interests** The author declares no competing interests.

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