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## REPLY: POINT THE MICROSCOPE TOWARD THE EDUCATOR

**Reply to the Editor:**

I enjoyed the perspectives of Acharya and Mariscalco[1] in their report about training cardiothoracic trainees. The authors painted a picture of the ideal trainee: one who is energetic, has initiative, and truly loves cardiothoracic surgery. Indeed, that type of trainee requires relatively little to remain motivated. However, I feel that more scrutiny should be placed on us as educators.

What are the most important characteristics of an educator that makes them effective? All of us encountered different types of attending surgeons during our training. We ultimately gravitated toward some more than others. How do those educators that we deem effective differ from the rest?

Studies have been performed to address this question. Surveys of surgery residents have shown that some of the most common themes of excellent educators were those who "provided sufficient support," "provided specific indications of areas needing improvement," and "presented residents with chances to think."[2] Each of these themes has one commonality: they are present in educators who communicate well. The inclination in surgical education is to focus on the trainee. Milestones are used to gauge a resident's progress.[3,4] Specific numbers of cases are required to be eligible for certifying examinations. Hours of simulation exercises are inserted into the didactic curriculum for trainees.

But what evaluations are performed on the educator? Compared with the trainee, relatively little attention is given to how effective attending surgeons are at teaching. Trainees fill out evaluations of their faculty, but these evaluations generally are of little consequence. Unless the scores are extremely negative, evaluations of attending surgeons are generally not followed by a guided program to improve. This reality presents an opportunity for us to create more effective teachers. We have spent 10,000 hours in the operating room learning how to perform a coronary anastomosis or resect an esophageal malignancy. However, most attendings have not received any formal lessons to become effective educators.

Most trainees gravitate to educators who love what they do and convey their thoughts effectively. Some attending surgeons naturally exhibit these traits.[5] Others struggle mightily with these abilities. The latter group may benefit from official training to become better teachers. There are courses that exist to educate the educator,[6] but most faculty do not attend these programs. Institutions should develop internal mechanisms to teach faculty how to educate. Institutions should also encourage more faculty to participate in faculty-development courses. Early coaching may prevent future "lightning rod" lapses in professionalism as described by Pasque in his manuscript.[7]

At academic institutions, our goal is to produce the type of trainee that Acharya and Mariscalco described. This trainee displays scholarship, perseverance, resilience, and respectfulness. While displaying these qualities, the trainee also has a hunger to be the best cardiothoracic surgeon possible. What needs to be examined is how educators can become more likely to generate trainees like this. Formal training and honest assessments of our ability to educate will have an overall positive affect on cardiothoracic surgical training in the future.

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