ChE book review

A New Agenda for Higher Education: Shaping a Life of the Mind for Practice

by Sullivan, W.M., and M.S. Rosin

The Carnegie Foundation for the Advancement of Teaching, Jossey-Bass, San Francisco, 272 pages, 2008. ISBN 978-0-470-25757-9.

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ost engineering faculty have pondered if their students graduate with "practical reasoning," or the ability to blend knowledge, skill, and appropriate attitude in response to unique situations that require expert judgment. To explore this question, the Carnegie Foundation for the Advancement of Teaching convened an interdisciplinary seminar, "A Life of the Mind for Practice," to inquire into higher education's responsibility to prepare students for lives of engagement and responsibility. The seminar was framed using a series of fundamental questions:

- What best teaching practices might be identified across the professions and the liberal arts and sciences?
- In what ways could the professions and the liberal arts and sciences employ one another's insights in order to achieve this goal?
- Might teaching for practical responsibility and judgment prove a unifying calling for contemporary higher education?

Fourteen faculty from the areas of teacher education, law, clergy, medicine, the liberal arts, and the sciences collaborated in a "Life of the Mind for Practice" seminar over the course of three meetings held over 15 months. Engineering educators included Gary Downey and Robert McGinn, engineering education faculty at Virginia Tech and Stanford University, respectively.

Chapters 1 and 2 present six detailed case studies developed by teachers in medicine, teacher education, engineering, law, and religious studies. (The syllabi for these courses as well as representative assignments are included in Appendix 1). These "best practice" courses utilize case studies, reflective engagement, and writing to connect course content with general principles for decision making.

Chapter 3 discusses the faculty partners' experience during the seminar series and describes the challenges encountered when a diverse group of faculty tries to enter into meaningful dialogue about their teaching practices. Appendix 2 details the seminar assignments for the faculty partners. While the group initially struggled with moving beyond the academic tradition of argument, over the course of the seminar they were able to distill the key concepts and the common language that emerged to propose a new agenda for contemporary higher education, which they term "practical reasoning as an educational agenda." The authors describe the rationale behind this agenda in Chapter 4, which is the most theoretical chapter of the book and requires significant persistence to finish. In particular, the authors propose moving beyond the widely discussed "critical thinking" to a framework of identity, community, responsibility, and bodies of knowledge. Academic departments are mainly concerned with bodies of knowledge, but the additional three topics direct and guide how one approaches the subject matter in one's field in response to a practical situation.

The Conclusion distills practical lessons from the seminar experience and suggests what would be required for institutions, departments, or campus centers of teaching and learning to offer local faculty this kind of formative experience.

I found this book to be a challenging read even as a "motivated reader" who was seeking practical suggestions on how to put these principles into practice. Faculty who teach courses on engineering ethics or design are likely to find it easier to fully implement the authors' suggestions. By thinking slightly outside the box, however, even those faculty who teach the engineering core courses will find ideas for augmenting teaching of technical knowledge with periodic discussions or assignments that engage students to consider the intersections between science, morality, and public policy.