

The discussion does not support the contention. For example, after advocating constructive not coercive choice (p. 45), the author defends his PDA practices in these words:

A unique feature of Position Description Analysis is that it immediately and personally involves everyone at the university, at least to the degree of calling them an eight digit name. This involuntary nature of the involvement with the process is also a means for achieving commitment. If we must be that heavy-handed, and I think we must for there cannot be individual bystanders, then the process should be one that pulls all, voluntarily or not, into a constructive process. (p. 81)

Such recurring contradictions weaken the case advanced here.

The monograph reads as a progress report on the development of a framework in which to locate the two named techniques originally developed in the eighties. It is more a listing than an argument, emphasizing discrete topics over persuasive synthesis, advocacy over theory. As the author notes, his "monograph clearly reflects a singular perspective of higher education" (p. vi). Despite the author's claims, the new agenda in higher education in Canada still awaits cogent formulation and analysis.



Lunde, Joyce Povlacs, with Baker, Maurice, Buelow, Frederick H., & Hayes, Laurie Schultz. (1995). *Reshaping Curricula: Revitalization Programs at Three Land Grant Universities*. Bolton MA: Anker Publishing Co., Inc. (Pp. xix; 262). Price \$34.95.

Reviewed by Michael Pitt, University of British Columbia

In the 1980s, it became increasingly clear across all of higher education that undergraduate education needed major revitalization. The general public pictured higher education and faculty as notoriously resistant to change. Faculty, however, normally viewed research and publications as the primary avenues to achieve recognition, job security, and financial

reward; teaching is often perceived as a less important necessity of academic life (p. 1). Land grant education appeared increasingly isolated from society exactly when its expertise and programs were needed to address growing world-wide problems in food and agriculture (p. 1). Fewer people are directly employed in food production, while an increasing proportion of the general public remains uninformed of agricultural and food production systems.

The editors indicate (p. xii) that schools with agricultural and food systems education programs find themselves in a unique situation. The contribution of agricultural research, extension, and teaching to the production of large quantities of safe, wholesome food remains a phenomenally successful story. Yet, with a new emphasis on environment and sustainability, curricula within schools of agriculture and food systems must shift from the traditional production emphasis to remain relevant to the current needs of society. National (USA) surveys cited communication skills, problem solving, and ability to work as part of a team as areas where agricultural graduates needed improvement (p. 8).

To meet these academic challenges and to address these social changes, the W.K. Kellogg Foundation funded three Land Grant Colleges in the United States to review and revitalize their curricula. The University of Wisconsin-Madison (UW-M) conducted *An Integrated Approach to Curricular Assessment and Faculty Development* (1986-1990); the University of Minnesota (UM) established *Project Sunrise* (1986-1988); and the University of Nebraska-Lincoln (UN-L) implemented *New Partnerships in Agriculture and Education* (1988-1991). This 262-page book summarizes the rewards and frustrations of curricular revitalization at the three institutions, based on contributions from 30 individuals. "Reshaping Curricula" includes seven sections. Each section contains three to four essays that provide the perspectives of the UW-M, the UM, and the UN-L.

Each institution obviously experienced similar motivations for curricular change. Each also identified similar educational goals and outcomes; consequently, some overlap of information and experiences exists within each section. Some overlap also occurs between chapters, because successive sections occasionally re-present the rationale for curricular

change. Nonetheless, "Reshaping Curricula" is logically organized and clearly written, with a wealth of highly quotable content. Although the book focuses on Land Grant Institutions and Agricultural programs, it provides valuable insights for all programs or faculties considering curricula revisions. I certainly wish this book had been available three years ago when we began to review our curriculum in the Faculty of Agricultural Sciences at the University of British Columbia.

### **Section 1. Three Programs in Curriculum Revitalization**

All three programs immediately recognized that curriculum revisions also required faculty development, motivation, and support (p. 13). To reduce faculty inertia, the Kellogg Foundation made funds available for faculty release time and expenses. Significantly, the revitalization process focused on academic programs rather than academic departments. Discussions advocated replacing traditional majors such as Animal Science, Agronomy, Horticulture, and Soil Science with new majors such as Agricultural Industries and Marketing, Animal and Plant systems, and Natural Resource and Environmental Studies (p. 41). Despite the increased anxiety level produced by this shift in emphasis, the revitalization process often reduced the number of academic programs, and introduced a mosaic of redesigned majors within a new administrative structure (p. 36). The UM concluded that to make change real, things must be different when you are done. "Retreat to previous habits should not be too easy" (p. 44).

### **Section 2. General Education and Curriculum Revitalization**

A 1984 study by the National Endowment for the Humanities portrayed undergraduates as isolationists, and ignorant of Western values because they completed too few courses in history, literature, and foreign language (p. 49). The National Institute of Education found that the structure and delivery of college courses contributed to poor learning skills and inability to relate theoretical knowledge to real problems (p. 49). Despite these allegations, the UN-L encountered considerable institutional inertia to suggestions for a new direction for undergraduate education (p. 54). To gain faculty support, therefore, the components of a

general education, which included competency, advanced skills, and breadth (p. 48), were first adopted at a Faculty meeting (p. 50). This section provides detailed, specific lists of competencies believed important to the educational experience at the UN-L (p. 57) and the UM (pp. 64, 66, 68-69).

The UM also developed an advising portfolio that offered a uniform and "user-friendly" way for advisors to track students. The portfolio identified 14 specific objectives for each student, which allowed faculty and students to focus on educational goals rather than administrative details. Students and advisors worked jointly to develop plans for filling the gaps in a student's coursework and experiences (p. 79). Rather than overemphasizing the specialized subject matter of a disciplinary major, the advising portfolio constantly reminded students of the necessity for educational breadth (p. 84).

### **Section 3. Interdisciplinary Courses**

The UN-L concluded that interdisciplinary courses, in combination with more discipline-based presentations, are necessary to promote a broad-based education (p. 88). Interdisciplinary courses also help students understand the complexities of the world. By 1986, however, broad-based education requirements at the UW-M were minimal, due partly to the "evisceration of requirements during the troubles of the 1960s and early 1970s" (p. 89). Since then, curriculum change occurred slowly, because faculty tended to pursue personal professional interests, and received little motivation for defining an "educated person." Alternatively, faculty spent time defining and refining specialists, such that specialized majors grew proportionately (p. 89). This section provides summaries of educational outcomes for breadth (p. 90), and offers advice for those developing interdisciplinary programs (p. 116). The UM organized a workshop, where all faculty could explain how his or her course fit into the interdisciplinary water resource program. Faculty also appreciated the opportunity to discover the content of other courses currently offered, such that everyone gained a clearer perspective of college-wide course content (p. 113).

#### **Section 4. An Introduction to Capstone Experiences**

The UM, affirmed that much of the undergraduate experience in the College of Agriculture emphasized knowledge accumulation, with only limited exposure to problems with “no right answer.” Capstone courses provided an opportunity for students to develop proficiency in making sound professional analyses, judgments, and decisions (p. 124). The UM-W provides lists of educational outcomes for the Senior Thesis in Landscape Architecture; all students should know how knowledge is generated, how to evaluate data critically, and should understand the contributions research can make to solving professional problems (p. 133).

#### **Section 5. Writing in the Curriculum**

The UN-L identified student communication skills as the highest priority for the new curriculum (p. 156), and provided five short-term objectives to support this long-term goal (p. 157). The UW-M developed a Writing Emphasis program based on the assumption that students learn to write best when writing comprises an integral part of coursework. The UM-W also assumed that knowledge is embodied only in language, that writing becomes an avenue to better thinking, and that writing helps students learn to compare, evaluate, analyze, and synthesize (p. 152). Ideally, students should not write “papers” or “essays,” but should prepare proposals, abstracts and lab reports -- “the stuff of their future professions” (p. 167). The UN-L concluded that any project designed to change student attitudes about writing must focus first on changing the attitudes of faculty. “Writing-in-the-disciplines” projects may fail if the only impetus comes from outside the professional discipline (p. 162).

#### **Section 6. Ethics and Agriculture**

The UW-M introduced a new course in “Human/Animal Relationships: Biological and Philosophical Issues,” which quickly became established and popular on campus (p. 189). The UW-M found ethics courses to be very useful for teaching critical thinking, and for developing writing skills (p. 193). The UN-L concluded (1) that undergraduates need to be aware that personal values are not universally held, and (2) that students often feel uncomfortable with the less technical world of ethics and ethical

decision-making. The UN-L hoped to provide their students with a sense of how to define ethical issues, make choices, state policy, and implement action based on scientific and ethical decision-making abilities (p. 196). Ethics courses forced students beyond the role of observer in the classroom, and motivated them to work cooperatively with other class members (p. 200). The UM provides an excellent example of course content, readings, and structure for their ethics course titled "Technology, Society, and Self" (p. 206). The section editor implies that ethics course are best presented by philosophers, or by interested faculty working in cooperation with philosophers (p. 188).

### **Section 7. Computers and the Curriculum**

Because the computer has altered the meaning and roles of the educational system, all three curricula revitalization projects included a computer component (p. 217). The focus, however, differed at the three institutions. The UM sought to make progress in incorporating computers into the classroom. The UW-M wanted students and faculty to "gain experiences with word-processing, data base management, and spreadsheets." The UN-L did not mention computers specifically as a part of designing new education experiences, but did not exclude computers as possible elements in opportunities for active learning and problem solving in experiential settings (pp. 217-218).

### **Conclusions**

Lunde provides an excellent summary of the outcomes and lessons learned at each of the three institutions. The book provides valuable guidelines for curricular revision, and should be read before beginning your own revitalization process. As the person responsible for our curriculum revitalization project at UBC, I enthusiastically support the UW-M's observation that a director of curricular revitalization is essential for success (p. 245). Other recommendations that I share include the necessity for faculty involvement and support (p. 242), the need for professional development of faculty, and the imperative to provide resources, recognition, and rewards for faculty who participate in a curriculum revitalization process (p. 243).

