

**Complex Adaptive Pedagogy for
Transforming Student Learning:
Educating Business Students for the New World Disorder**

Abstract for Managing the Complex IV

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Abstract

Complexity theory has increasingly and perhaps unsurprisingly been applied to gain a better understanding of ever-changing phenomena in many business arenas, industries, and markets. Organizations must deal with broad and sometimes volatile sets of internal and external stakeholders, such as employees, suppliers, customers, and regulators. Businesses must cope with dynamically discontinuous economic, political, social, and technological environments in domestic and international markets. As lived by company executives on a daily basis, and as can be attested to by mid-level managers and even relatively low-level employees, the new world of business is complex, turbulent, and disorderly.

Management educators are—or if not should be—concerned with exposing their students to what they will be facing when they enter this ever-changing business world. Are these educators aggressively ensuring that students gain knowledge, skills, and experiences that will help them in adapting to the dynamic and complex world of business? Yes and no. Many business educators are using computer simulations to model various quantitative business phenomena, and requiring or allowing students to engage in internships that often focus on the more qualitative aspects of working in a business environment. But most educators have a long way to go to incorporating more thoroughly realistic scenarios and experiences into their pedagogy. The educational system generally tends to

overly constrain exploration and innovation, such that students who perform well are likely to be those who are particularly good at following the instructor's rules and submitting work that parrots the instructor's views. Yet this narrow view of excellence is clearly not best for organizations and society as a whole; it seems to underscore the weak relationship between strong academic achievement and job performance.

How might educators transform students through new types of learning beyond traditional incremental knowledge-building? How can educators provide a structure that works against the inefficiencies of random learning, yet leaves open the possibilities for student self-directed learning to naturally occur—and in ways not necessarily envisioned by the pedagogic designers themselves? How may educators allow coherence to emerge without imposing an order that stifles the creative energy and innovative potential of students? How can educators get students to see not only the direct effects of inputs and actions, but the indirect, mutually shaping, and sometimes longer-term effects? And how might educators better motivate students for greater active engagement in the learning process, so that they are actually attracted to their educational endeavors. The answer to all these questions may lie in simulating complexity in the educational enterprise—by applying key concepts associated with complexity theory.

In this paper, as a way of emphasizing the critical importance of bringing complexity theory into the domain of business education, I will discuss how I have embraced a new mental model—complex adaptive pedagogy, or CAP—and infused this system of teaching and learning into my international marketing course. I simulate organizational

complexity with an organizational learning design: recognizing that organizations represent complex entities, I attempt to transform the teaching-learning experience through a marketing project that places students as “employees” into multiple task forces within one dynamic organization (Lofman 2002). Each employee must eventually work at some point with virtually all other employees in the organization; their interactions, working relationships, and collaborative experiences take center stage above the performance of any one or two individuals. Students must learn how to work cooperatively in teams and interactively share their information and knowledge toward mutual gain (Saavedra, Earley, and Van Dyne 1993). The definition of “organizations” that best fits this dynamic process is “collections of relationships among agents” (Lewin, Parker, and Regine 1998, p. 36) who interact heterarchically rather than hierarchically (Dent 1999, p. 8).

CAP is adaptive in three ways. First, the instructor must be sufficiently flexible to give up considerable control. Second, students must be adaptive in being willing to cope with ambiguity. And third, the broader instructor-student relationship itself must be transformed for these mutual adaptive capabilities to be unleashed in this unorthodox teaching-learning environment.

After several academic terms of employing this organizational learning design, I was exposed to the literature on complexity theory, and recognized that my basic approach to teaching this course had much in common with its basic tenets. The pedagogy not only dovetails nicely with the general notion of complexity, but several concepts associated

with complexity theory are evident in this teaching-learning design, such as complex adaptive systems, agents' self-organizing behavior, patching, and receiver-based optimization (Kauffman 1995), and the dipolarity of giving results oriented rewards for contributions of fabricative value, and behavior oriented rewards for contributions of creative interference or latent value (Johnson 1992; Lumley 1997). In the paper I will: (1) compare my model with conventional pedagogy; (2) consider how I have unwittingly operationalized complexity concepts through this organizational learning design; and (3) discuss the emerging patterns of student experiences in the course over several academic terms. To better prepare business students for the new world disorder, educators should embrace this new mental model, direct concerted efforts toward incorporating organizational complexity issues into their curricula, and infuse CAPs into their courses.

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