

Book Review

A review of *Curriculum Dynamics: Recreating Heart*, by M. Jayne Fleener, 2002. New York: Peter Lang, 215pp. ISBN 0820455407. \$29.95 USD.

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M. Jayne Fleener builds bridges toward a curriculum future evolving from curriculum present and past. Her text compels educators to notice “the world and everything in it as alive, dynamic, interdependent, interacting, and infused with moving energies: a living being, a weaving dance” (p. 194). Educators working to create learning organizations in the spirit of Senge (1990) and DuFour and Eaker (1998) will be compelled to investigate Fleener’s main thesis, which positions curriculum as the heart of the living system that is the school.

Fleener’s text provides insightful perspectives through her use of *Flatland: A Romance of Many Dimensions* (Abbott, 1884/1994) in her undergraduate mathematics methods courses, “to promote discussion on dimensionality, perspective, and ‘thinking outside the box’” (p. 176). Fleener retells parts of the novel in an effort to lead us to question and challenge our thinking rather than to continue to live in the comfort and security of predictable and certain answers. We are challenged to support students who try to see things from perspectives other than a flat plan of two spatial dimensions and, in turn, prompt them to envision two space dimensions and one time dimension. We are confronted with the need to overcome our own aversion to seeing our own comfortable world “through a different lens, from a different vantage point” where “the familiar looks unfamiliar and our entire way of organizing our world is called into question” (pp. 177–178). Rather than measurement, *Flatland* is about relationship.

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Fleener suggests that if we accept that schools are social systems, then the interdisciplinary study of many fields must come to play in the cultivation of schools as learning organizations and, importantly, as learning communities. Re-visioning schools as learning organizations will help them develop their adaptive and dynamic self-organizing potentials. Using Wittgenstein's notion of "change of aspect," Fleener asserts that we will "move beyond modernist origins and form a different *Weltbild* or form of life that includes changing the way we see and interact with our world" (p. 141). The parallels between social systems and living systems rely on viewing social systems as having three defining characteristics: self-generation, autonomy, and organization. How can we come to re-vision schools as having the organizational capacity for meaning, purpose, and learning rather than procedure, product and standard? This is a critical question and the answer seeking to emerge may root up and disrupt our assumptions about curriculum, pedagogy, professional development, school organization—and life.

Using systems logic, Fleener develops a conceptualization of schools as living systems. She draws upon Maturana and Varela (1980) to inform her discussion of language and meaning in these systems as she highlights the role that language plays in human development and learning. Fleener also draws upon Capra (1996) to explore language as communication about communication and Maturana (1988) to conceptualize social systems as "networks of co-ordinates." She concludes with Luhmann (1990), "Social systems, seen as living systems with meaning as their reproductive capability, implicate logics of meaning, relationship, and systems" (p. 149). Fleener articulates how schools use communication as their mode of autopoiesis.

How do schools relate to themselves and to their environment? Do schools have the capacity to self-regulate? Are they autonomous? Fleener suggests that even within social constraints, creative problem-solving and decision-making occur, which are the essence of autonomy in social systems. Using Piaget's notion of autonomy, Fleener maintains that the "coordination of activity balancing power, conflict, and authority with cooperation, exploration and choice" (p. 152), a social system develops its identity and purpose together with an emergent meaning system.

Writing about the techniques of a postmodern logic of relationship, systems, and meaning, Fleener articulates how language games (Wittgenstein) can be understood as new ways of "seeing as" so that we might change how we understand schools and social organizations as adaptive and living autopoietic systems. She suggests that we utilize the *generative metaphors* of language games to reflect purpose and meaning within systems that "see" schools as learning organizations.

Fleener foregrounds her discussion of curriculum dynamics with her concern that the ideas in this book should not be reduced to prescriptions for action or ultimate answers to our problems. The book is designed as a “prompt” for generative discourse rather than a search for complete truths. There are no solutions to the problems of education, but as Fleener posits, only “dissolutions of them” (p. 163). Her discussion of curriculum as the language games of schooling cultivates the possibility “to envision the holographic image of schooling infused by meaning and purpose through curriculum dynamics” (p. 164). She describes the self-organizing curriculum, the curriculum matrix with its richness, the Mandelbrot set as a metaphor for understanding this richness, and the curriculum as process-oriented emerging with learning and knowing “from it” and “beyond it.”

These discussions compose the first section of Fleener’s text, which begins with a succinct history of the underlying logic of domination and an uncovering of the origins and cornerstones of modernity that articulate how the processes of schooling came to be enmeshed in theories of domination.

In the second section, Fleener positions her discourse within the new scientific revolutions of evolutionary biology, theories of relativity, and quantum physics. Developing what she refers to as the logics of postmodernism: relationship, systems, and meaning, Fleener asks us to use these new lenses to “see” curriculum “as the [organic] basis for a relational curriculum with self-creative, autonomous, and self-identity potentials” (p. 174). For Fleener, this new “seeing” represents a transition to a “fractal dimension, a new Borderland” (p. 178).

This thoughtful and thought-provoking book is a useful addition to the field of complexity and education. Extending Doll’s (1993) foundational work, Fleener makes a strong case for a dynamic, self-organizing, emerging curriculum of richness, recursion, relations, and rigor. Fleener uses a plethora of recent studies to develop a well-documented synthesis of ideas with practical application to education. Her book should be on the reading list of practicing teachers interested in constructivism and deep student learning; administrators seeking ways to provide dynamic curriculum leadership to improve student learning; graduate students studying the practical application of complexity science; and professional development leaders searching for meaningful ways to develop real learning communities.

References

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