Logo: Context, Not Contents

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Editor's Note: This article is written in response to a question raised by Gary Stager, a Logo advocate and computer consultant from Wayne, New Jersey. Gary wanted to know whether Logo had functioned as a “Trojan horse” for educational change in America’s schools. Judi responds in the following article.

Every reform was once a private opinion, and when it shall be a private opinion again, it will solve the problem of the age.

—Emerson, 1841

In 1983, A Nation at Risk told us what we already knew. “School reform isn’t enough,” it said. Why? Reform efforts in the early 1980s were barely more than reorganizations and reapplications of existing ineffective and inaccurate beliefs and practices. The results of an intensive seven-year study of the K-12 system were also published in 1983. In A Place Called School, John Goodlad boldly used a new word in his calls for school change: restructuring. Less than 10 years later, educational restructuring might well be called a national movement.

Restructuring is more radical than reform. As is indicated by the Latin derivation of the word radical, restructuring strikes at the root of institutional and instructional structures, causing true transformation. The context, not the content, of what we teach and learn in our schools is the target for such change. Yet when the context of the learning environment changes, the content has no choice but to change along with it. Technological infusion can be used as a practical, persuasive way to help shift educational context. Many of us first encountered that idea in the pages of Mindstorms.

Logo is all about changing context. It is not surprising, then, that Logo fan(at)ic(s) are often proponents of educational restructuring, whether or not they consciously label themselves as such. The question of whether Logo has served as a Trojan Horse in school reform efforts is concerned with cause and effect. In other words, has Logo really made a difference in our schools without most people expecting it to do so?

To address this question, let us consider first how educational reform is now being pursued. Recent calls for school restructuring share several common themes (Lewis, 1989):

• They are student- and teacher-centered
• They suggest changing the ways that students learn and teachers teach, requiring both to assume greater initiative
• They affect both curriculum and instruction
• They require releasing many current reforms and centralized bureaucracies
• They allow and encourage higher expectations of teachers and students
• They make necessary a central vision to which all members of an educational community subscribe.

These ideas are not new to Logophiles. Did Logo directly help to bring these views to light on a national scale? Probably not. But observations of institutionalized education similar to those that led Papert to write Mindstorms are what are leading many educators today to consciously consider systemic change. Perhaps Dr. Papert was pessimistic when he wrote that “the education system will not be able to bring itself to decide on radical change in education” (Stager, 1991, p. 1).

It would seem that just such transformations are what educational restructuring efforts are all about. But what is necessary to catalyze such bottom-line change in our schools? The current-day Russian revolution permits us to consider the following possibility. Perhaps radical, pervasive contextual shifts cause and are caused by a conscious change of mind on a mass scale. The optimist would say that just such a conscious choice for endemic change in our schools is what is fueling the restructuring movement. Educators are becoming self-reflective practitioners. As such, they cannot be duped into change. They are seizing the point of power and deciding to restructure their classrooms.

Isn’t that what happened to many of us when we first encountered Logo the language and Logo the educational philosophy? We were empowered, and we were able to similarly empower our students. Logo didn’t and doesn’t do anything by itself. But it did give teachers who were already experimenting with learner-based, exploratory teaching/learning contexts a physical, methodological, and philosophical focus and community. The Logo “movement” is an attempt to help teachers consciously change the context of their beliefs about education by providing them with a qualitatively different experience of teaching and learning.
It was actually most convenient that Logo philosophy came along in a new mechanical "package" (the microcomputer) at a time in educational history when notions of school restructuring were beginning to congeal. It was probably this temporal advantage, combined with Logo's low threshold, high ceiling, and extensibility, that helped it to find its way into so many K-12 schools. A technological time window of opportunity opened as we became increasingly dissatisfied with educational reforms being "more of the same." A new way of seeing the problem (a new context) was required. What better way to see a new "solution" than that which could be made available on a new machine?

Logo is a philosophy manifested in mechanical form. Papert's ideas were expressed in an exciting product that appeared in the schools in a particular temporal window of reconstructionist opportunity. Logo is an example of a restructured way of teaching and learning that is as much an outgrowth of general societal trends as are the recent calls for educational restructuring. Logo can serve as a way to share and express a set of rather ethereal notions about "how education should be" in a more or less concrete way. As a microcomputer application, it may function for some individuals initially as a "personal Trojan Horse," as Marion Rosen has said, but as a national trend in education it probably only serves as an early example of one way in which we can restructure the K-12 environment. Logo may once have seemed like a movement unto itself only because it appeared approximately 10 years before more general calls for K-12 constructionist learning, and because it was linked to a physical, observable, namable, purchasable product.

The question of whether Logo has served as a Trojan Horse misses the point. Change cannot happen without conscious choice and direct action. Whether Logo will serve as one of many realistic models of the context of truly restructured education is what is really important. Our experience tells us that it can, along with micro-based science laboratories, computer conferencing, interactive hypermedia environments, and other such new, technologically-infused andragogical contexts. But will it? This simply-put question itself suggests the answer—the very basis for true transformation. The success or failure of educational restructuring will depend upon the collective, conscious exercise of our wills as educators.

References

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