

DEWEY GOES DIGITAL: SCALING CONSTRUCTIVIST PEDAGOGIES AND THE PROMISE
OF NEW TECHNOLOGIES

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Educational research offers a cornucopia of strategies to enhance student learning, mostly with a constructivist cast: engaging learners actively in the learning process, addressing the hazards of prior conceptions, and respecting the multiperspectival nature of knowledge. Pursuing these strategies remains limited to the occasional educational oasis, however. WIDE World (<http://wideworld.pz.harvard.edu>) at the Harvard Graduate School of Education promotes wide-spread constructivist teaching practices through online professional development for educators.

This paper frames a description of WIDE World with analysis of the challenges of scalable designs for educational change. In order to avoid the “replica trap,” scalable designs must confront the problems of *magnitude* and *variation*, fostering change in a large number of settings with widely varied conditions. Some teeth in the replica trap are: scarcity of effective coaches, cost of travel, dilution of the innovation through the “telephone effect,” the culture of isolation and privacy in schools, and varied priorities and established practices across settings. Any initiative with aspirations to scale should articulate a *scaling model*, a causal theory of how the initiative promotes wide-spread improvement of teaching *craft* and development of supportive *contexts*, including organizational structural, cultural/symbolic, political, and technical issues.

WIDE World’s scaling model focuses primarily on the craft dimension. It aims to reach large numbers of educators with research-supported methods of professional development around a select set of research-supported pedagogies in ways that yield sustained wide-scale change in practice and consequent wide-scale improvement in students’ learning. It builds on two web-sites, ALPS (Active Learning Practices for Schools at <http://learnweb.harvard.edu/alps>) and

ENT (Education with New Technologies at <http://learnweb.harvard.edu/ent>) which were both developed to help educators apply pedagogies derived from research.

Currently most WIDE courses consist of six online sessions, approximately every two weeks, for a total of 6-12 weeks. Each course has one or two instructors but may have large numbers of participants. Participants are clustered in groups of 8-12, each with a coach. The content of courses focuses on application of research-based pedagogical strategies, such as engaging multiple intelligences, Teaching for Understanding, and integrating new technologies to improve learning. Participants learn through ideas presented by the instructor, short assignments of reading or examination of online models, activities to try out new practices and post designs or reflections online, feedback from coach and peers, and participation in reflective discussions online. The focus is on changing actual practice, not just distributing information or ideas.

WIDE World courses use Internet technologies to address persistent challenges of magnitude and variation with respect to scaling up support for improvement of the craft of teaching:

Modeling desired practice. WIDE World courses enact the same constructivist principles that they teach and give participants ample opportunities through case studies and collegial exchanges to see the practice in action. The Internet and the tiered structure of instructor-coaches-enrollees in permit large numbers of geographically dispersed participants to experience constructivist learning with considerable individual attention and good quality control. The centralized architecture and content allow rapid updating without reprinting of materials. The architecture also provides for accommodating variations from setting to setting, e.g., online archives present large numbers of examples that participants select from, depending on their interests. Enrollees with common priorities, e.g., subject matter, location, age of learners, can be clustered into groups with a coach who tailors the course to their interests. Learners can collaborate with other participants facing similar situations.

Human facilitation. Online coaches augment course materials by providing tailored support and suggestions as teachers change their practice and by promoting interactions among learners without physical proximity. Coaches are recruited from prior enrollees who have taken WIDE courses, trained through an online course, and supported with online resources.

Sustained community of inquiry. Networked, asynchronous communication supports reflective professional communities within coaching groups. Participants cultivate new habits of mind about learning and teaching as a profession, based on continual inquiry and collaborative construction of new understandings, rather than mere reception of pre-set, inert knowledge.

Economic viability. The entirely-online architecture of WIDE World eliminates most printing and travel costs. With very large courses (which we have not yet achieved), the relatively fixed costs of technology, course design, and instructors become secondary. Effective marketing and sales strategies that reach large numbers of educators can make WIDE World self-supporting

WIDE World, as now organized, does not directly address most of the factors significant to scaling change in the context of education, e.g., organizational structure, political support, compatible mandates, access to resources, and so on. While context is important, our expertise lies in developing craft. Also, attention to contextual variables depends upon local knowledge and relationships that are difficult to develop and affect from a distance. Thus we are developing synergistic alliances with organizations better positioned to influence contextual variables and thereby leverage WIDE World's contributions to improvement of teaching craft.

The Internet and associated technologies are neither necessary nor sufficient for scaling educational change, but they are powerfully enabling. They provide means of communication and interaction to sustain dialogue, reflection, and cooperation across distance among communities of educators attempting to improve their practice. Dewey can indeed go digital, if educators take advantage of networked technologies to mediate new forms of invention and collaboration.

