Revolutionizing School Reform for Educational Transformation

John B. Keller
Charles M. Reigeluth

Changeless Reform or Educational Revolution?
The debate over what should be done to improve the effectiveness of American K–12 educational systems has been refueled by the dialogue springing from the enactment of the No Child Left Behind Act of 2001 and the subsequent ripples that this legislation has caused (Robelen, 2004). On the one hand, the spirit of the law has been praised, while on the other the letter of the law is criticized because it requires the labeling of schools that can obscure remarkable improvement (McCall, Kingsbury, & Olson, 2004) and hinges on all student subgroups clearing the same hurdles. The solutions proposed include the allocation of more money (see Costrell & Peyser, 2004), greater attention to teacher quality, and transferring students from failing to successful schools. Such proposals are not novel in the predictable history of school reform—in fact reforms du jour typically repackage old solutions in hopes that “this time things will be different.” Hess (2004) groups such ideas and those who promote them under the moniker “status quo reform.” If the educational past can teach us anything, we should fear that NCLB will be yet another changeless reform.

In the spring of 2004, education officials in Washington, DC, announced changes to the interpretation of NCLB aimed at easing a few of the more onerous measures. The question that remains is: Can NCLB-type legislation and reforms that rearrange rather than change schools provide real hope for educational improvement? Based on about 15 years of experience working with schools to facilitate change, we think that the answer is “No.” It is our belief that transformation of education is most likely to succeed if it occurs by way of a design process undertaken and “owned” by educators in partnership with community stakeholders. In other words, for real improvement to take hold, schools must be re-visioned and redesigned by the people who will use them. This is a very different approach to school change with the potential for very different results.

The observation that the educational system itself is the source of the ineffectiveness that plagues American education is not new. Critics of reform du jour have pointed out that tinkering with the existing system is certain to produce results that fall short. Branson (1987) concluded that the current paradigm of schools operates at almost maximum efficiency and effectiveness and that the small margin between the current efficiency levels and 100% efficiency is not worth the expense of closing the gap. In other words even if we could get 100% productivity from our present system of education, we would be left wishing for a better education system—the paradigm of the system is keeping us from realizing the results that we want. A decade later, Covington (1996) made the point again by observing the tendency of school reform efforts to intensify current measures in hopes of achieving the educational heights we want. The myth of intensification, as Covington calls it, is the false hope that employing current strategies for improvement but executing them more often, for longer periods of time, with more money, more training, and higher standards will lead to real educational change and improvement.

As a real-world example of how genuine educational revolution produces markedly different results from typical educational reform strategies, we review a recently published book that reports on the successes of a school designed according to revolutionary principles. After a short synopsis of this successful school transformation, we focus on how the school is fundamentally different in curriculum and instruction from the current orthodoxy of how schools should be run. Next, we review design principles that are present in the school and which are likely to be organizing tenets of other transformational efforts. Having reviewed the what and how of school transformation as well as the foundational principles for implementing the design, we emphasize the importance of the transformation process that is critical to evolving and enacting a new paradigm of education. To support this point, we share our own field experience in a midwestern district that has embarked on a school transformation journey.
The Education Revolution: Spectacular Learning at Lower Cost

Morton Egol (2003) presents a plan for America's educational future in his self-published book titled, The Education Revolution: Spectacular Learning at Lower Cost. The "spectacular learning" is achieved essentially by cultivating a love of learning in students — something missing in the current system — under the recognition that high motivation is crucial for high student performance. The "lower cost" is largely accomplished by eliminating educational bureaucracy — a net gain of $75 billion for the American economy if the system could transform itself overnight.

The Community Learning Center (CLO) in Alameda, California is the incarnation of an educational microcosm that Egol is urging the country to take to scale in order to benefit from the educational achievements of a unique venture sponsored by Arthur Andersen. Key features of the learning center model include a cross-disciplinary team of teachers (five), a heterogeneous community of learners (150), high levels of parent involvement as a condition of attendance, a flat governance structure that relies heavily on student participation, and individualized learning plans that include apprenticeships.

Egol makes the case for the need for a new system of education by explaining how the present system may have at one time worked for the industrial age but is obsolete in the information age. Key features of industrial-age education are a pedagogy of transmission, the passive role of students, the very structure of schools, and evaluation practices (e.g., letter grades). Egol points out that few efforts to effect educational change grasp the fact that key changes in society require fundamental changes in the educational system. Having overlooked this, most reforms reinforce the current system rather than introducing changes of substance.

As Egol juxtaposes his view of the current system with his vision of the future system, his language is emotionally charged:

---

1The book is available, at $21.95, from Wisdom Dynamics LLC, P.O. Box 174, Tenafly, NJ 07670, as well as: http://www.wisdomdynamics.com/, Barnes & Noble book stores, and Amazon.com (the author's e-mail address: mortonegol@wisdomdynamics.com).

2Under Egol's system, educating a child would cost $5,940 in 2002 dollars. The savings are realized in states that in 2002 spent more than this to educate each student. By his calculations, on pages 79 and 80 of his book, six states would actually be spending more money per student with his design.

3Egol was employed by the consulting firm and was instrumental in founding this new schooling model in 1996.

---

The Curricular What of School Transformation

According to Egol (2003), given that different students learn at different rates, the key organizing element of most schools, specifically that all students learn the same content at the same pace, assures the failure of some students. Furthermore, schools presently under-emphasize the skill set that can best described as the tools of learning in favor of a corpus of prescribed content.

As its name suggests, the information age is marked by an explosion of information and knowledge. The rapidly expanding body of knowledge presents real challenges for curriculum design. Egol implies that the current move toward standards-based reform does not adequately address the need for a change in curricular focus. Rather than a focus that emphasizes the acquisition of discrete chunks of curriculum, students should be helped to acquire and sharpen "the lifelong skills of Learning-to-Think and Learning-to-Learn that will enable them to acquire a wider range of knowledge as they need it" (p. 10). Egol proposes a regimen that he calls the "new basics," which would equip students for the information age where learning to learn is of paramount importance. These new basics include skills such as: strategic reading and speed reading, effective writing, research, note-taking, effective presentations, listening, dialogue, and logic, among others. These new basics are a similar departure from the current curriculum as those called for by many observers, including the U.S. Department of Labor (1991) and the American Psychological Association (Lambert & McCombs, 1998; McCombs & Whisler, 1997).

The Instructional How of School Transformation

Egol identifies the shift from teachers teaching to learners learning as the central difference between the educational paradigms of the industrial and information ages. He advocates that students should be self-directed in their learning and that the curriculum should be constructed by learners rather than transmitted to learners. The role of teachers in the new system is one of facilitation and modeling. Indeed, teachers in Egol's "community learning center" (CLC) model are themselves learners pursuing their own learning goals.
Teachers in these settings work in teams to support learners in achieving their goals. Teachers are also key community liaisons as they work outside the school walls to arrange community partnerships and apprenticeship opportunities.

At the core of Egol’s new design is the fundamental transfer of responsibility and motivation for learning from the teacher to the student. This is not achieved by fiat but by fostering learning motivation and capacity in each student as they set and achieve their own learning goals. Egol emphasizes that the shift from teaching to learning will result in savings as teachers turn from managing students to facilitating learning. He restates the premise of his argument: “If we redesign the system to take students out of ‘classes’ and empower them as self-directed learners, while transforming teachers into facilitators, there is no limit to the quality that can be achieved at lower per-pupil costs” (p. 28).

While Egol’s recommendations for this new approach to learning and instruction are based on the Alameda CLC, he does not cite research evidence to support it. Nevertheless, much research support does exist, most notably from the American Psychological Association (Lambert & McCombs, 1998; McCombs & Whisler, 1997) and the National Research Council (Bransford, Brown, & Cacking, 2000).

Revolutionary Principles for Revolutionary Results

Underlying the radical changes in curriculum and instruction are principles that are keys to new and effective educational designs. While the forms that new educational designs take will vary in appearance, it seems likely to us that many principles underlying the forms will be similar.

We believe that, at the highest level, the mission of schools for the information age, in which constant learning is essential to success in life, is to produce self-directed and self-motivated learners. The designs for new schools will vary, but they will hinge on a new view of learning that is consonant with the information age. The principles to guide revolutionary school designs that Egol states explicitly or implicitly can be organized into two categories (see Table 1). First, there are the principles that outline a new view of learning. The second class of principles stems from the first and addresses system-level changes necessary to align with the new view of learning. In other words, when the principles of information-age learning are assumed, the organization of schools as a means to learning must also change in significant ways.

Several big ideas are evident in the principles of learning category. One of these ideas is customization (or personalization) over standardization, which is discussed by Reigeluth (1994, 1999). As consumers gravitate to the product lines and services tailored to their needs, it is not difficult to see how such a trend could benefit education. Indeed as choices for education proliferate and parents adopt a consumer mindset about education, personalized attention will be an expectation. Personalization is the logical extension of outcomes-based education. If learning rather than teaching is the primary distinction between industrial-age and information-age schools, targeted attention to each individual’s learning needs is the only logical end.

The special education field has developed individualized education plans (IEPs) to comply with the Individuals with Disabilities Education Act (IDEA, 1994). Though the substance of these plans usually addresses specific interventions and modifications to be made by the classroom teacher, we believe the case conference, which is part of the formal process for formulating the plans, has much to offer those thinking about designing schools that emphasize personalization. In these case conferences, teachers, principals, specialists, students, and parents convene to discuss and design a learning plan that targets specific areas of need.

Table 1. Principles of Information-Age Education.

<table>
<thead>
<tr>
<th>Principles of Learning</th>
<th>Principles of School Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning should be self-directed</td>
<td>Time allocations must be changed</td>
</tr>
<tr>
<td>Learning should often be collaborative</td>
<td>Organization of the learning environment must take advantage of diversity</td>
</tr>
<tr>
<td>Groups and organizations can learn</td>
<td>Teachers should be lead learners and facilitators</td>
</tr>
<tr>
<td>Learning should be personalized</td>
<td>Tall hierarchical bureaucracies should be replaced with flat democratic governance</td>
</tr>
<tr>
<td>Learning should be project-based</td>
<td>Schools should be governed by users</td>
</tr>
<tr>
<td>Learning is about mastery rather than exposure</td>
<td>Schools should be community learning hubs</td>
</tr>
<tr>
<td>Service learning has high relevance and motivational value</td>
<td>Productivity must increase</td>
</tr>
<tr>
<td>The tools of learning are critical competencies</td>
<td></td>
</tr>
</tbody>
</table>

EDUCATIONAL TECHNOLOGY/September–October 2004
Egol leaves no doubt about his passion for school transformation. This passion gives the book an urgent tone that sometimes toys with hyperbole and the melodramatic. This can be excused as deserved enthusiasm for what his successful model augurs for American education. Egol’s fervency has the weight of a successful example—an existence proof—to bolster the credibility of the transformation he proposes.

Egol is ebullient about the potential savings that would be realized by a scaled-up version of this educational revolution. While such savings may have large popular appeal in the present political climate, we feel that more important than his speculations about savings is Egol’s advocacy for real changes in the paradigm of teaching and learning, which promises to greatly improve the effectiveness of schools by radically changing the use of time, talent, and technology (Schlechty, 1990). In other words, absent the savings, if the transformations that Egol urges were successful, they would be well worth the one-time investment of time, energy, and money to cover the transformation process.

It is also important to note that the CLC model is designed to serve secondary students. It would be interesting to know if Egol’s design would need to change significantly to accommodate younger learners.

Mission Critical: The Transformation Process

While Egol’s book offers evidence that it is possible to challenge the structure or “grammar of school” (Tyack & Cuban, 1995) and to come out with a successful design, getting from the schools we have to the schools we want requires close attention to the transformation process—a process that can be painstaking but nonetheless critical to the eventual success of the new designs. It is to this process that we now turn our attention.

Egol should be commended for addressing the transformation process at all. Many analysts describe what changes they think should be made but give no guidance on how to help bring about those changes successfully. The transformation process is perhaps the most critical and most difficult aspect of fundamental (revolutionary) educational change, so it is important that Egol addresses it. He should also be commended for recommending actions to be taken by the full range of organizations and individuals involved in education: federal and state governments, school districts, teachers, colleges and universities, businesses, philanthropies, parents, and citizens. This represents truly systemic thinking as discussed by Banathy (1991), Checkland (1984), Capra (1982), and Ackoff (1981).

At the core of Egol’s recommendations is getting school districts to: (1) conduct a visioning process with all stakeholders, (2) create prototype CLCs, and (3) offer free choice for enrollment in CLCs. However, Egol does
not offer much guidance for how to accomplish these goals. This is unfortunate because, in our view, the transformation process is the most critical and most difficult issue in bringing about significant improvement in education. Fortunately, a growing number of researchers are developing knowledge about the systemic transformation process (see, e.g., Caine & Caine, 1997; Duffy, Rogerson, & Blick, 2000; Jenlink, Reigeluth, Carr, & Nelson, 1996, 1998; Reigeluth, 1993).

We have both been involved in a project to facilitate a systemic transformation process in the Metropolitan School District of Decatur Township in Indianapolis that began in January 2001 (see http://www.indiana.edu/~syschang/decatur/index.html). That transformation process is guided by the Guidance System for Transforming Education (GSTE) (Jenlink et al., 1996, 1998), which only provides guidance for the transformation process, not for the “design” or new model of education to be implemented—the nature of their new school system is to be determined by the stakeholders during the transformation process. Based on our work in Decatur and with other public schools, we agree with Egol that it is crucial to conduct a visioning process with all stakeholders.

In our experience the most important outcome of the transformation process is the changes in mindset or mental models (Senge et al., 2000) about education that result from the process—changes in mindset similar to those discussed by Egol (2003), McCombs and Whisler (1997), and Caine and Caine (1997). Even the very best of educational programs and methods will be misunderstood, misapplied, and even resisted without such changes in mindsets. Therefore, the transformation process should involve as many stakeholders as possible and involve them in a way that engages them in generative dialogue (Bohm, 1996) on what an ideal educational system would be like. We also have come to believe that the transformation process needs to be customizable to local conditions in each change effort. For example, the GSTE (Jenlink et al., 1998; Jenlink, Reigeluth, Carr, & Nelson, unpublished manuscript) contains specific guidelines and activities for stakeholders to redesign the basic process offered by the GSTE. Furthermore, we advocate that those involved in transformation efforts share their process and what they have learned about the transformation process with the wider educational research community. There is a great need to advance our knowledge in this area.

Conclusion

Egol’s book is provocative, stimulating, and enlightening. It helps us see that our public schools could be radically different than they are—that they could be transformed to dramatically improve their ability to meet the needs of our students and communities in the information age, and quite possibly at lower cost. He provides insights into changes that should be made in what we teach and how we teach it, and he points to a “proof of concept” in the Alameda School District in California. He discusses design principles that are present in the Alameda CLC, and that provide a basis for transforming other schools. And he briefly addresses important elements in the transformation process for conducting the Education Revolution. While often emotionally charged and lacking in documentation of research support, we believe this is a compelling and insightful “must read” for all who are interested in improving education.

References

Lambert, N. M., & McCombs, B. (Eds.). (1998). How students learn: Reforming schools through learner-centered...

Resources for Educational Transformation

Books
educational technology. Berlin; New York: Springer-Verlag.

Articles

Reports

Websites