Vermont's Transformation of Education

When Vermont educators began to see a gap between students' needs and the state's education system, they began planning how to adapt for the 21st century.

By Peter Drescher

Peter Drescher *(peter.drescher@state.vt.us) is the Vermont education technology coordinator.*

Vermont is transforming education through a K–16 effort. The work at the high school level illustrates the depth of change required to move away from the traditional Carnegie unit of study and emphasize project-based methods and service learning. This move necessitates that teaching move from a "delivery" model to a "facilitator" model that engages students in their own learning. Ultimately, this move is about personalizing students' learning experiences and tapping into the modalities that allow each student to learn best.

A Need for Change

Since 2005, Vermont educators have been talking about students and their role in global markets, their place among do-it-yourself entrepreneurs, and their interactions with enormous amounts of information.

By 2007, the Vermont Department of Education could see that fundamental change was needed to foster successful 21st century students.

Vermont's Transformation of Education focuses on meeting learning needs for all students and leveraging technological advances. Discussions involved local and state leadership in all areas of education and centered on how to more fully engage all students in their own learning. Student forums revealed that many students felt stymied, wondering why an encyclopedia from the library is better than more up-to-date information from a home computer and why they must disconnect from their learning communities when they enter the school building. Other questions concerned the relevance of what they were learning to issues they identified with, such as energy and the environment.

In 2008, the state board of education released *The Transformation of Education in Vermont*, which suggested areas where schools could begin the initiative. The document helped define the language that schools needed to begin planning their own direction and explained what is involved in educational transformation:

> A transforming educational system will be less bound by schedules and facilities, and instead, will promote more flexible learning environments. Student success will be measured not by the number of courses completed, but by what students know and what they can accomplish. Students will be encouraged to develop the kind of complex problem-solving skills that are required in today's world. By becoming fluent in the use of information and communication technologies, they will learn to use the essential tools of the 21st century. And by gaining meaningful experience, they will learn how to be responsible local and global citizens. (Vermont State Department of Education, 2008, p. 1)

The document also addressed what 21st century learning environments are, what skills all students need, how students acquire skills, what a transformed educational system should look like, and how the Vermont education system would get there.

Since then, the Vermont Department of Education has offered grant programs to establish pilots, held transformation summits that involve

educators from both leadership and content areas, facilitated a transformation commission to identify state-level "policy levers" that will advance transformation, and developed a dialogue with schools and school leaders.

Five Big Ideas

Technology is embedded into all facets of the transformation work. One of the more visible aspects has been the 2009 technology plan, *Learning With 21st Century Tools*, which serves as a template for schools to design their own technology plans. It draws directly on the five big ideas of transformation from the original document and addresses each of them in a learning and technology context.

Student-centered learning. Research has shown that students learn best with technology when they are given parameters and then allowed to use technology to seek solutions or solve problems. This model requires the teacher to become a facilitator: guiding and helping, but allowing students to make decisions about how and where to find the information they need. Although teachers may not be sure of the outcome of the students' efforts, this strategy allows students to drive and control their own learning, which in turn helps them personalize learning and make connections to their own life experiences.

Leadership in student-centered learning environments. Leaders at many levels in the school (principals, teacher leaders, and student leaders) should work together to give students increased access to and control of tools for learning. This does not mean giving students complete access to everything; it means being thoughtful about how access is structured and controlled so that students are working within areas that are educationally appropriate and that students are free to explore high-interest areas.

Changes may include the development and creation of new physical spaces that allow for increased communication and collaboration, such as common areas for students, study lounges, and so forth. Leaders should also model the uses of technology for students and staff members, such as by using interactive whiteboards at staff meetings or by using blogs to communicate with the larger community.

Flexible learning environments. To provide learning beyond class time, students can use online tools, virtual classes, and devices to access the Internet at the times of day when they are best able to focus on their learning. A new distance learning initiative is beginning to offer online courses in many high-interest areas that small rural schools may not be able to provide, such as diverse languages, higher-level mathematics and science, and advanced technical skills.

Engaged community partners. Students' learning is extended through connections with local communities, state partnerships, national connections, and international relations. With the many platforms available to share information, such as Ning, Google Docs, wikis, and blogs, schools can easily help create those connections for and with students, locally, nationally, and internationally.

Results and indicators of success. School personnel assess what they are doing and set goals and benchmarks for continual improvement in their learning communities. This is a two-part process: using technology to collect data that inform instruction and continually assessing technology's role in the classroom. Schools may

Since 2005, Vermont educators have been talking about students and their role in global markets, their place among do-it-yourself entrepreneurs, and their interactions with enormous amounts of information.

join the Vermont Data Consortium to help them learn how to gather data, and the planning document includes evaluation steps for assessing technology's impact in classrooms.

Develop a Plan

Each of the five areas is more fully described and outlined in *Learning With 21st Century Tools*. Schools have developed plans using this framework, and many are using Title IID monies from the recent American Recovery and Reinvestment Act to realize their goals. Schools are purchasing "netbooks," which are relatively inexpensive, to give more access to students, thus creating flexible learning environments. In many schools, students may sign computers out and use them beyond the school day for online courses or homework activities. Interactive whiteboards, when used appropriately, can help create collaborative learning experiences, and many schools are using funds to purchase these devices. Other purchases include probeware, iPods, and other tools of 21st century learning.

The Vermont transformation is a work in progress. Many schools are pushing the boundaries of technology use for students. Some additional initiatives include:

- Providing "parallel networks" on school grounds for student-owned hand-helds and laptop computers (within the Children's Internet Protection Act compliance as well)
- Shifting entire textbook funding areas to the purchase of netbooks for access to relevant and up-to-date resources
- Developing curriculum that takes the most advantage of digital content
- Providing fully staffed online learning labs so that students who are taking online courses have support from a teacher
- Establishing wiki-based collaborative communities that students have access to 24/7.

These examples serve as models, and technology will play a key role in their dissemination as Vermont showcases examples of programs that are successful and helps others identify the barriers that schools face when implementing large-scale reform. All of Vermont will benefit from the collective experience that schools and districts are undertaking. PL

REFERENCE

- Vermont Department of Education, Vermont State Board of Education. (2008). *The transformation of education in Vermont: A framework for transformation from the Vermont State Board of Education*. Retrieved from http://education.vermont.gov/new/pdfdoc/dept/transformation/transformation_080108.pdf

RESOURCES

- The Vermont Transformation Web Page http://education.vermont.gov/new/html/dept/transformation.html
- The Vermont Technology Planning Document: Learning with 21st Century Tools http://education.vermont.gov/new/html/pgm_edtech.html#plan_2012