

Lessons from New Zealand

Developing students' voices using technology

By Mike Charles, Dorothy Burt,
and Mia Kim Williams

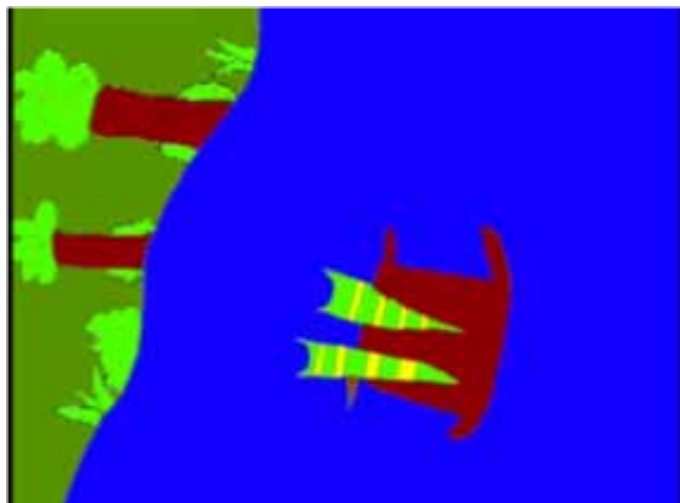
Thirteen members of ISTE's Special Interest Group for Teacher Educators (SIGTE) traveled to Auckland, Rotorua, and Christchurch to visit seven schools and present and attend the Learning@School 2010 conference as part of a travel tour last February.

This second installment in our three-part series features ways we saw technology used in New Zealand to develop student voices in the classroom, in the community, and across the world. We observed students engaged in peer listening and sharing activities as well as student/teacher cooperative practices where the students' voices were valued as co-developers or co-researchers in the learning processes.

Digital Learning Objects

As winter turned to spring in the northern hemisphere, summer was turning to fall in New Zealand, and school was getting underway. Imagine walking into a year 5 classroom (what we call fourth grade in the United States) at Pt. England School in Auckland. It's the second week of school, and students have been discussing how the Māori (the indigenous Polynesian people of New Zealand) migrated across the Pacific to Aotearoa (the Māori name for New Zealand) aboard double-hulled ocean-faring sailing craft called waka. Pt. England students have a personal connection to this story, as many of them are Māori or Pacific Islanders, and studying this history is part of the school's effort to help empower them to have a sense of their personal voice as well as their interdependence with others.

In education circles, New Zealand has long been recognized for its work with the literacy cycle. As students learn about something important in their curriculum, they illustrate and write about what they are learning in order to share it with a broader audience. At Pt. England, this is described



Silas, a student at Pt. England School in New Zealand, created this drawing of a waka vessel using Hyperstudio as part of his multimedia project called My Waka Adventure Animation. Mike: is the orientation of this image correct or should it be rotated 90 degrees clockwise?

as quality teaching of the traditional concepts of literacy.

Staff there believe that technology makes a unique contribution to this literacy cycle. As students create what they refer to as digital learning objects, technology-facilitated activities spur interest and enthusiasm that can entice students to participate. Based on data collected over multiple years at Pt. England, students learn to read and write better from using this process.

While walking through this classroom, we saw students creating digital learning objects at a handful of desktop computers. Students drew waka vessels using the paint program KidPix and animated those drawings using the multimedia authoring program HyperStudio. They edited that animation, adding titles and voiceovers using a video editor (iMovie), and they shared their multimedia story with the teacher, their classmates, and the world using their class blog on Blogger.

Through this sharing, the development of student voice is reinforced by authentic audiences. The blog is open to the world for comment because Pt. England educators believe that publishing work to a larger audience is an important part of helping students see themselves as confident, connected,

actively involved lifelong learners. They are convinced the power of authentic audiences develops literacy skills in all their students, and that connecting with 21st century learners involves sight, sound, and motion.

Silas is one of the students we watched working in February. His work from that day and throughout the year is posted on his blog. In his second entry, "My waka animation adventure," he describes the perils and hardships of the journey on the waka.

While the waka was battling the odds, the numerous stormy and rough waves were crashing over them. The people were frightened and sad as waves crashed over the waka. And the fierce wind howled like a wolf's cry.

Historians agree that most Polynesians did not survive the trip on the waka as they navigated the Pacific, and Silas' work suggests that he understands the danger of this journey. Technology is not the means by which he understood that history, but it does provide a way for him to share what he learned with a global audience.

Silas has maintained his blog essentially as a learning journal. By the time the New Zealand school year reached its halfway mark, he made 14 blog entries for an average of two or three posts per month. The topics he posted

range from things he was learning in school (the waka adventure, volcanoes, and using descriptive words) to things he loves to do (such as moonwalking like Michael Jackson). One of his later entries is about sailing on the Ted Ashby, a historic sailing vessel at the New Zealand Maritime Museum in Auckland, during a school field trip. He describes his trip like this:

As I was sailing on the Ted Ashby I could feel the wind lashing through my hair, then icy wind started biting my face. When it was time to pull the main sail, I struggled as I heaved on the halyard as hard as I could. On the sides of Ted Ashby, waves were lapping and making strange sounds. As we headed towards the harbour it was time to hoist the sails so we could sail to the harbour bridge.

In the comments on his blog, his teacher compliments his use of nautical terms and remembers her own trip on the same boat. We were struck by the connection between his experience sailing on the Ted Ashby and his animation of the waka created nearly six months earlier. His growth as a writer is evident from the difference in the two, and we were reminded of the promise that Web 2.0 tools can hold for providing authentic assessment of the growth of student language arts skills over time.

Technology tools that are considered passé or even dangerous in the United States are used in a vital way in many classrooms in New Zealand because of that country's grounded educational philosophy. For example, as educators from the United States, we were struck first by the tools that Silas and his classmates used. To draw and talk about what you are learning is a simple and fundamentally sound educational strategy, especially for students at the elementary school level. Paint programs are great tools



Silas and other students from Pt. England School post a range of text, video, and images on their blogs. This is a photograph of Silas taken aboard the Ted Ashby, a historic sailing vessel from the New Zealand Maritime Museum in Auckland.

for students to use to draw what they are learning about, and they have been available on computers in schools since the 1980s. The new version of HyperStudio that students were using in New Zealand has been reviewed favorably and remains an outstanding tool for animating student drawings. But U.S. schools rarely use this program. Having students post on their own blogs for the world to read and comment on is an idea that many advocate, but a relatively small percentage of students in the United States actually do, often because of safety concerns. At Pt. England School, the conviction that student voices need to be heard and that publishing to the Web is a critical part of student development balances those safety concerns.

The emphasis on developing student voices through literacy processes was not isolated to Pt. England School. Throughout the seven schools we visited, students were engaged in various activities that exercised voice. Blogging, creating digital images, and video creation and editing appeared

to be in widespread use. Elementary students at Ilam School were blogging about classwork and developing learning goals for the year, while mid-level students at Fendalton Open-air School were creating digital illustrations about chapter books they had read. Like Silas, all students had the chance to come up with original ideas, to communicate about themselves and with their peers, as well as with caring and capable adults, and to develop their own voices for authentic audiences.

In addition to developing voice through engaging in digital learning activities, we also observed students at Discovery 1 School (elementary) and Unlimited Paenga Tawhiti (secondary) in Christchurch contributing to their own learning paths. They met with instructors to discuss progress, plan curriculum, and set goals. At Unlimited, students were able to propose and create their own course of study, which legitimized their individual interests and learning strengths. For example, a group of students worked with an instructor to connect with Microsoft and explore their interest in collaborative gaming. Students wrote game sequences and tested beta versions of games under development by the company. Their work was authentic, and instructors collaborated with community members on the curriculum. These examples expand learning beyond the traditional core subjects, engage students in vital 21st century skills, and help them develop their voices as partners with adults in their learning environments.

Student Achievement Results

Earlier we described the three essential elements in the literacy cycle that includes digital learning objects as a vital part of the learning process. The three elements are:

- Quality teaching of the “traditional” concepts of literacy

- Creation of digital learning objects from the outcomes of literacy
- Publishing the digital learning objects in a Web 2.0 environment

In one study at Pt. England School, a sample group of 27 students involved in podcasting significantly improved their reading habits and their attitude about reading books. They also improved their reading ability (accuracy, comprehension, and fluency) as measured by standardized testing. Note that Pt. England is a decile 1A school, which means that most of the students come from a lower socio-economic community.

Most classrooms at Pt. England have five or six desktop computers. Leadership at the school look forward to the day when all students have net-book access over a higher-speed Internet connection so that students can seamlessly incorporate tech tools into the learning process.

What does this kind of work look like on a larger scale in New Zealand? The Manaiaikalani Literacy Project, which aims to change social, educational, and economic outcomes in disadvantaged communities, has been carried out at seven schools in New Zealand with more than 2,000 students ranging from ages 5 to 18. These students create animations, podcasts, digital graphics, digital storytelling, digital video, and individual blogs. Silas' work is just one example of what these digital learning objects look like. Students' reading and writing scores have shown significant improvement through this approach. Writing scores have risen by an average of four times the expected growth in one year for students in years 4 through 10 (grades 3–8 in U.S. schools).

An Invitation to Participate

In 2010, Pt. England students published content on more than 150 blogs. The teachers and students would love to have you and your



Image from Ilam School. We need to get permission to use this one. Mike: Can you get permission? If so, please also provide a caption.

students read and comment on their blogs as they establish their sense of voice in the world. Year 4 students are typically 8 years old. All classes for ages 5–12 keep blogs that are open to the world. The site tracks visitors on a map, and by reading their blogs, you and your students are providing an authentic audience for their work. You are also welcome to add helpful comments that encourage students' development and growth. This site might be particularly valuable for teacher educators who would like to provide a place for teacher candidates to practice their comments to students.

During our visit, New Zealand's Ministry of Education was launching national standards in reading, writing, and mathematics with an online assessment and reporting system. While at the Learning@School 2010 conference, we had a chance to hear from ministry officials about that effort and observe the reaction of hundreds of New Zealand educators. Foremost among their concerns was that the government might repeat the errors they perceive the United States and the United Kingdom made, in which overly prescriptive assessments have resulted in a reduced curriculum.

As visitors, we wondered just how New Zealand education will avoid reducing education and learning from a cultural task to a productivity task.

This progression seems as difficult to avoid as tragedy at sea for the waka vessels hundreds of years ago. For now, we look forward to reading the blogs of students like Silas who, under the direction of capable educators, bring learning safely home.

Resources

- EDtalks video of Mike Charles discussing New Zealand standards from a U.S. visitor's perspective: www.edtalks.org/play.php?vid=390
- New Zealand's Schools and deciles: www.min-edu.govt.nz/NZEducation/EducationPolicies/Schools/SchoolOperations/Resourcing/OperationalFunding/Deciles/DecilesInformation.aspx
- Pt. England School website: www.ptengland.school.nz
- Pt. England School blogs: www.ptengland.school.nz/index.php?family=1,451
- Research related to Manaiaikalani Literacy Projects: www.manaiaikalani.org/research-1 and www.ptengland.school.nz/index.php?family=1,871,11746
- Silas' blog at Pt. England School: <http://pessilasd.blogspot.com>



Mike Charles is an associate professor in the College of Education at Pacific University in Oregon and a past-president of SIGTE.

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Dorothy Burt is the e-learning facilitator at Point England School in Auckland, New Zealand.

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Mia Kim Williams is an assistant professor at the University of Northern Colorado.

