



## Bringing Imagination and Creativity into Teacher Education and Teaching

by Leanne Miller

### Nipissing Looks to SpICE Up Teacher Education

by Leanne Miller



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"We are getting all these kids through the education mill, but they don't have a creative thought in their heads. They can't innovate, they can't work in teams and they can't communicate properly."

So argues Ken Robinson, a leading thinker and speaker on creativity and innovation.

The former University of Warwick professor contends that: "What we need urgently is people who can contribute to change and innovation. The same is true for teachers ... teacher training needs to be innovative and inspire teachers because they are better at their jobs when they enjoy what they are doing."

A group at Nipissing University's Schulich School of Education has taken some of Robinson's cool theoretical ideas and turned them into practical classroom techniques. Blaine Hatt, Liz Ashworth and Rob Graham think the ideas are so cool they call them ICE, which stands for Imagination and Creativity in Education.

ICE is the basis for a new cross-curricular course that Blaine Hatt, whose background is teaching English, visual arts teacher Liz Ashworth and technology guru Rob Graham developed and piloted last year.

The outline of Exclusion to Inclusion: Imagination and Creativity in the 21st Century Classroom describes a "study of imagination and creativity development for K-12 learners whose goal is to foster an attitude that values other ways of knowing, doing and expressing."

The group credits Robinson for its inspiration along with the desire to see students and teachers know, do and express differently.

Hatt says, "We are tired of hearing students ask teachers, 'Is this what you are looking for?' or 'What do I have to do to get an A?'"

He and his colleagues argue that these questions, along with Ontario's testing-oriented, results-driven education system are driving education today. The system, they believe, is stifling both students and teachers.

Paraphrasing Robinson, Rob Graham asserts that Ontario's education system, starting with teacher training, must give teachers the space they need to be both professional and creative in how they engage students. "And that starts with infusing more creativity and imagination into classroom activities by giving students choice in their assignments," he says.

### Extending choice

**“Choice extends far beyond the topic. It involves the medium as well.”**

“Choice enables students to connect what they are learning to their own interests and abilities,” says Hatt. “That’s what will engage them.”

But haven’t teachers always given kids choice? Choose a book for your book report. Choose your speech topic. Choose your essay or project topic.

“Choice extends far beyond the topic,” says Liz Ashworth. “It involves the medium as well.”

It means authentic performance assessments, such as creating and presenting bulletin-board displays and videotaping presentations and performances. It means using portfolios in math and science as well as in visual art.

“And choice refers to point of view,” Ashworth continues. “Re-draw a Picasso from an Impressionist’s perspective. Tell the story of or write a poem about Vimy Ridge through the eyes of a German soldier. Write a lab report from the perspective of methane gas.”

Choice also comes from using a variety of assessment tools, including checklists, rating scales and formal chart-style rubrics. Students should have input on assessment as well, according to Ashworth. She says, “Give them a chance to self-assess and peer-assess on larger assignments. Let them conference with the teacher before the due date, share their work and get confidential feedback from classmates using checklists. And let students give themselves a mark as well.”

Ashworth and her ICE colleagues ask their pre-service teachers to prepare the rubric for their final project. The rubrics must incorporate the course expectations but could take any form. “They found this the most challenging aspect of the course,” she says, “because they are so used to others telling them how they’ll be marked.”

Using creativity and imagination in the education of pre-service teachers should transfer to the new teachers using creativity and imagination in their own classrooms.

**“Creativity is the doing – the ability to move the conceptual to reality.”**

Hatt defines imagination as the ability to conceive of notions that do not exist. Creativity is the doing – the ability to move the conceptual to reality. “You may be an imaginative and creative teacher,” he says, “but the real question is, are your students knowing, doing and expressing imaginatively and creatively?”

Rob Graham’s passion is using technology creatively. He says that many schools have loads of technology and that money is not the key barrier to using it effectively in the classroom. The challenge is finding imaginative and creative uses for what is available.

“In that sense,” Graham contends, “the greatest barrier is the mind. Most often, the key missing ingredient is the pedagogy that should drive technology’s use.”

Graham’s research and classroom experiences confirm that students’ levels of engagement are higher when they use technology. As well, technology strengthens teachers’ classroom management abilities because the technology helps engage students in their learning.

Graham has developed several pedagogically sound but inexpensive and simple-to-use technology ideas based on the ICE concept.

Over the summer, the Hatt, Ashworth and Graham team found themselves in what they call the reflective phase of course development, reviewing their own feedback and that of their pilot-year students.

“We need to consider this feedback,” comments Graham, “and how we continue to grow this endeavour that we are all so passionate about. Passion is that magical elixir.”

Their dean, Sharon Rich, fully supports their work: “Innovation is important in our teachers and our students,” she says. “Teacher education and our education system still have an industrial-age focus. We are in the digital age and we must change our practices to reflect this. Collaboration is very important for improvement and progress, yet teachers here at the faculty and in many schools around the province tend to work in isolation. These ICE teachers have found a passion in education that is inspiring them to work together, to open classroom doors and to talk about improving teaching and learning.”

The passion appears to be catching on. The course is running again this year with five new colleagues joining the ICE team.

**IDEAS TO USE IN THE CLASSROOM**

### Metaphor of inquiry

Choose your own metaphor of inquiry – for example, for how you perceive your role in education – and share it with your classmates and teacher by uploading it onto the course web site. It might be a paragraph, a video, an annotated picture, a poem or any format you choose.

### What if?

Create an original work (working individually in pairs or small groups) that answers a “what if” question related to your subject. Rewrite a story but place it in a new setting. Create a toy from items in a blue box. Compose a piece of music based on a randomly chosen word in the dictionary. Create a poem from an existing short story (or vice versa) and write music to accompany it. Design a new sport. The possibilities are endless.

### Point of view

Create an original work by changing an existing point of view. Redo a painting from a different perspective. Rewrite the music and lyrics of a song, using a different genre. Rewrite a story or fairy tale from a different character’s viewpoint. Tell a story about an important battle from the enemy’s perspective. Describe the results of an experiment from the perspective of the gas.

### One Shot Wonder

Have students shoot a brief thematic video that needs no editing. The only constraint is they must do it in one shot. Removing the editing component makes this activity more challenging for the students, yet more functional for a teacher in terms of time and resources. For an example from Nipissing, go to <http://www.youtube.com/watch?v=3-ftGI2Wg1Q>.

## TOOLS TO USE IN THE CLASSROOM

### Digital voice recorder (\$70)

- Let students record themselves reading or giving speeches. Play it back to have them hear and work on speed, volume, intonation, emphasis and other effective speaking and reading techniques.
- Ask students to interview people as part of research projects. More sophisticated activities might include having students edit, add music, make podcasts and even share their work on the Internet.
- Students can use **Audacity** freeware to manipulate sound files.
- Keep digital audio records of students’ reading progress and play back samples during parent interviews. Create and share audio assessment to measure student progress over the semester or year.
- Have students explain how they solve math problems. You can listen and assess explanations rather than mark papers. Let parents hear what their children are learning in class.



### Digital picture frame (as little as \$20)

- Take pictures during science lab classes and set up a procedural corner to show students what to do. Direct them to the frame so they don’t have to ask you for help.
- Take pictures of students in action and set up a frame in the corner of your classroom, with coffee on parents’ night.

### Digital camera (\$50+)

One pair of students gets it for a week. They take pictures, create a project on a topic and present it at the end of the week. Use it in place of journal writing or current events. Visual projects tap into skills other than those used in more traditional pen-and-paper writing tasks.

### Ambient sound maker for sleeping (\$20+)

- Have the students choose a sound and tell a story around it.
- Use it to accompany storytime, and let students pick the sound to accompany the story.

### Korg nanoPAD (\$80)



The **Korg nanoPAD** is a USB interface offering 12 responsive trigger pads. It allows students to integrate sound or musical notes into whatever they are doing. They can use it to create sound responses to stories, add sound to read-aloud sessions or create soundscapes to accompany stories, plays and poems. Teachers and students can create math raps when students are learning math facts or times tables.

### **Puppets for Smart Boards**

Smart Boards are not often used in primary classrooms. Giving younger students a hard-nosed hand puppet to use on the screen will help with fine motor skills and engage younger learners as well.

### **Live Scribe Pen (\$100)**

[www.livescribe.com](http://www.livescribe.com)

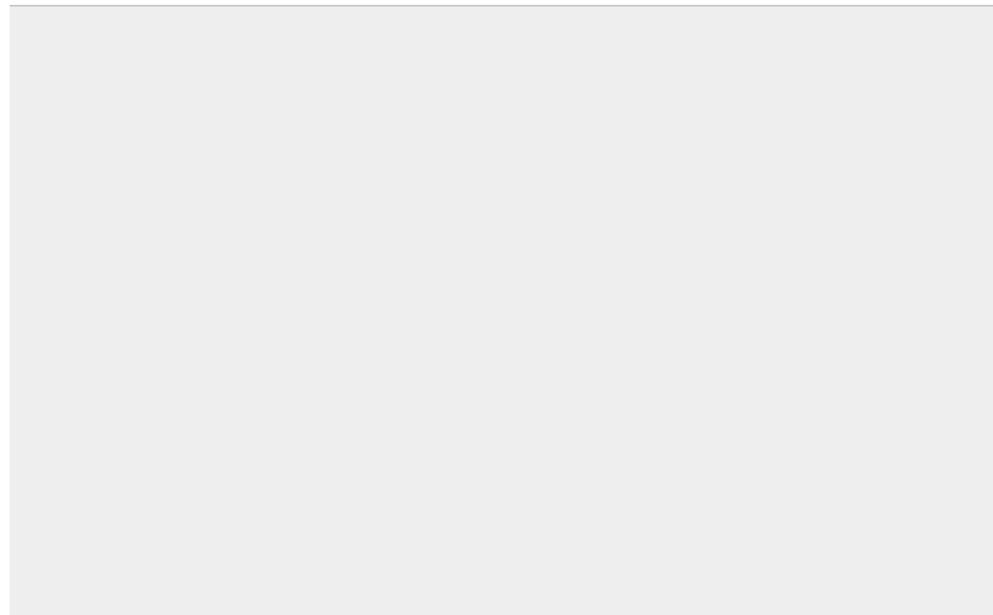
This smart pen allows the user to take notes, record audio and then replay the recorded audio by tapping directly on the notes. An additional application allows users to save notes to a computer and then search for words within the notes, and to export notes and audio locally as PDF or audio files.

- **[Watch Rob Graham's pencast](#)** demonstrating uses for the Livescribe pen (use full-screen mode).



## **KEN ROBINSON**

Ken Robinson, former professor of Education at the University of Warwick in the UK, first came to prominence in 1998 when he led a national commission on creativity, education and the economy for Tony Blair's government. The commission's final report, *All Our Future: Creativity, Culture and Education*, concluded that the UK's prescriptive education system was stifling the creativity of teachers and students. In his 2009 book, *The Element: How Finding Your Passion Changes Everything*, Robinson argues that society must enhance creativity and innovation by rethinking human resources and imagination and by transforming education and business to meet the challenges of living and succeeding in the 21st century.



Robinson, who lives in California and earns his living speaking on creativity, does not blame teachers for the present state of affairs. He says, "It's the system – it's too linear. Schools are obsessed with rigid timetables, for starters. "If you live in a world where every lesson is 40

minutes, you immediately interrupt the flow of creativity. We need to eliminate the existing hierarchy of subjects. Elevating some disciplines over others only reinforces outmoded assumptions of industrialism and offends the principle of diversity. The arts, sciences, humanities, physical education, languages and maths all have equal and central contributions to make to a student's education." For more on Robinson, go to: [www.guardian.co.uk/education/2009/feb/10/teaching-sats](http://www.guardian.co.uk/education/2009/feb/10/teaching-sats).

#### FURTHER INVESTIGATION

Anna Craft and Bob Jeffrey, "Creativity and Performativity in Teaching and Learning: Tensions, Dilemmas, Constraints, Accommodations and Synthesis" in *British Educational Research Journal*, Vol 34, Issue 5, October 2008.

H. Lin, "The Ethics of Instructional Technology: Issues and Coping Strategies Experienced by Professional Technologists in Design and Training Situations in Higher Education" in *Educational Technology Research and Development*, Vol 55, No 5, 2007. Found at: <http://www.springerlink.com/content/e758h04lj636086p/>.

Daniel H. Pink, ***A Whole New Mind: Moving from the Information Age to the Conceptual Age***, Riverhead, 2005.

Ken Robinson and Lou Aronica, *The Element: How Finding Your Passion Changes Everything*, Penguin, 2009.

Ken Robinson, *Out of Our Minds: Learning to be Creative*, Wiley/Capstone, 2001.

To visit Ken Robinson's web site, go to: [www.sirkenrobinson.com](http://www.sirkenrobinson.com).



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