

The GOAL Post

Viewpoint

The power of hands-on learning within the community

by Ann Addleman



It's easy to assume that our students understand the purpose of learning. The connections between today's learning and tomorrow's career opportunities may be obvious to us. But perhaps we need to be more deliberate in pointing out these links to our students.

Maniwaki Woodland is a K-11 school and many of its 200 students come from First Nations communities. Our socio-economic ranking is 9 and student engagement is a frequent challenge.

Every high school student is assigned a teacher/advisor who follows his or her progress throughout the secondary years. Through one of these "advisories" we learned that five of our Secondary III students were interested in photography. Fortunately, we knew of a professional photographer who had grown up in Maniwaki.

"This may be a turning point in how they perceive education."

Alice Beaudoin readily agreed to come to the school and explore this career possibility with the girls. She also challenged them to go out and take photos that reflected their community and bring back their favourites for critiquing.

Coincidentally, the girls learned of a photo contest sponsored by the Québec Anglophone Heritage

Network that they have since entered. They also visited Alice Beaudoin's studio in Chelsea,

Québec, and the National Art Gallery in Ottawa where they viewed the work of award-winning photographers and media artists. The students celebrated the end of their project by hosting a vernissage of their photographs at the local cultural centre.

Mentoring and support

Because of Alice's mentoring and the community's support, these girls have done some serious hands-on learning. In their photo shoots—and in organizing their vernissage—they have had to express



An interest in photography brought these Maniwaki students together with mentor, Alice Beaudoin (far right), for some genuine hands-on learning.

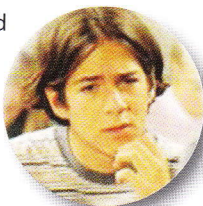
themselves convincingly. This may well be a turning point in how they perceive education and their role as contributing members of their community.

GOAL has this power to engage students. It isn't something we should do only on a Friday afternoon. We need to integrate it into the curriculum at every level.

Ann Addleman is the principal of the Western Québec School Board's Maniwaki Woodland School.

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Making Dreams Come True

BrainReach makes science accessible and cool

McGill's Integrated Program in Neuroscience (IPN) is bringing classroom science to a whole new level in several Montréal-area schools.

Students exposed to **BrainReach** have touched a calf's brain. They've seen how a life-size mould of a human brain (made from edible gelatin and pudding!) can be sliced to expose its different parts. And by the end of the school year, they will have watched in real time as an electrical impulse travels

down a cockroach's leg and causes it to move. This is hands-on science, come to life before their very eyes. And to quote the reaction of one Laval student: "Wow! My mind is blown!"

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Kids “come, see, do” at *Trades in Motion*

Interactive hands-on displays quickly captured students’ interest and imagination.



New Frontiers School Board and CS des Grandes-Seigneuries joined forces in late March to hold a three-day

adds that leadership students from the two NFSB high schools shepherded the younger kids around the displays. “We wanted every student to participate in hands-on activities related to the trades they had selected.”

“Trades in Motion” fair for 3,000 students in grades 5 to 8. Inside a former arena, vocational teachers from both boards

“My children loved building, designing, creating. I’ve never seen them so excited about school.”

- An NFSB parent

Before the event took place, the 35 participating schools asked their students to

choose seven trades that interested them the most. “We guaranteed students they’d get to visit their first and second choices, as well as one other,” says GOAL coordinator, **Tom Muirhead**, who helped organize the fair. He

If vocational teachers were initially a little skeptical about targeting such a young audience, they were quickly won over by the students’ enthusiasm. “Our goal is for students to realize early in their schooling that vocational training is a valid pathway,” says **Chantal Bergevin**, another GOAL coordinator and event organizer. It seemed the students agreed. Several of them even returned for a second visit, this time with their parents and siblings in tow.



For the more than 3,000 students from grades 5 to 8 who participated in “Trades in Motion,” the emphasis really was on “seeing” and “doing.”

Learning by doing

This issue is devoted to various ways that education gains relevance when students “learn by doing.” GOAL initiatives don’t have to involve hands-on learning, but they are particularly engaging when they do.



“Hands-on appeals to different learning styles and multiple intelligences,” points out **Marsha Gouett**, EMSB’s Career Development consultant. “It also helps kids to apply their knowledge, learn from others and make connections to the world beyond school.” The realization that an activity they enjoy could one day lead to a career they love is often the motivation students need to persevere and stay in school.

Students from **Sunshine Academy** in Dollard-des-Ormeaux show their enthusiasm for BrainReach.



BrainReach makes science accessible and cool (continued from page 1)

BrainReach is exciting participants at all levels, including the 40 IPN graduate students who are volunteering their time to it. The project was born out of the IPN’s desire to stimulate young people’s interest in relevant contemporary science. “Our students were already involved in visiting schools during Brain Awareness Week,” says Dr. **Joe Makkerh**, who with IPN director, Dr. **Josephine Nalbantoglu**, has been a driving force behind BrainReach. “They loved doing this and wanted to extend their

“All of a sudden, science seems less alien . . .”

involvement beyond just one week.” Just as the IPN was refining its idea for BrainReach, the engineering firm, BPR, offered five \$10,000 prizes for innovative educational projects. BrainReach was selected out of 70 applicants.

Since late January, IPN students—either alone or in pairs—have been making a series of presentations to elementary and high school science classes. In the English sector, IPN has teamed up with five schools in **Sir Wilfrid Laurier School Board** and

seven in **Lester B. Pearson**. At times drawing from their own research, the presenters cover topics that include brain anatomy and injuries, how we learn and establish memories, and how schizophrenia, Alzheimer’s and other diseases affect the brain.

“The fact that the same team of students returns to the same classroom over a period of several visits only helps to create a real bond





RSB takes a fun approach to a serious subject

by Malcolm MacPhee, Career Education Consultant, RSB

Riverside School Board's first "Hooked on School" week got students to think about—and voice—their reasons for staying in school.

Working with students and staff in four high schools and an adult education centre, RSB's **Elisabeth Kutter** coordinated a week full of activities in February that underlined the impact of school on young people's lives.

"This was our first time participating in the annual *Journées de la persévérance scolaire en Montérégie*," says Elisabeth, who is working to help local com-

explaining their motivation for staying in school. A similar activity took place at **St-Johns High School** and both sets of testimonials will be used to promote next year's version of "Hooked on School." At **Centennial Regional High School**, a lunchtime competition had students write down their views on colour-coded post-it notes. (The school is divided into four "houses" not unlike Harry Potter's Hogwarts and the house with the highest participation won.)

An essay contest—and dress-down day for all participants—elicited **Chambly Academy** students' take on perseverance and student engagement. Meanwhile, former Montréal Alouette **Anwar Stewart** shared his belief with **ACCESS** adult education students that education was a critical stepping stone to anything they hoped to achieve.

Top reason: time with friends

"Time with friends and social attachments were the number one reason students gave for staying in school," says Elisabeth. All the same, she was surprised by the candidness of some who named a really significant teacher, event, or other person in their lives that provided them motivation and support. "Then there were others who knew they really wanted to be an engineer or doctor and they recognized the education those career choices required. I was also struck by the comment of one young student who said, 'I need as much education as possible to be the best person I can be.'"

Centennial students use post-it notes to express their ideas.

munity services better understand the needs of at-risk English-speaking students. "Our aim this year was simply to raise awareness of the importance of education." Daily web page postings and homeroom announcements shared "dollars-and-cents" facts about why it pays to stay in school. And hands-on activities gave students the impetus to consider their personal reasons for finishing high school.

Five schools, five activities

At **Heritage Regional High School**, student council members filmed their fellow students

and rapport which has facilitated higher levels of discussion and learning," says **Michael Quinn**, a science and technology consultant with SWLSB. "All of a sudden, science seems less alien and much more tangible to our students. A natural consequence is that they are realizing that a career in science might be something very possible and attainable."

Questions from the younger students can even challenge the presenters to rethink things they may have taken for granted. On the surface their queries may seem naïve, says Joe Makkerh. "But they are fantastic questions that can make our grad students wonder why they never asked the same thing themselves."

Want to know more about BrainReach?

You can reach Dr. **Joe Makkerh** at the Integrated Program in Neuroscience at **514-398-3341** or email joe.makkerh@mcgill.ca.

Eight ways to be a GOAL-inspired teacher

by Brent Callahan, Beaconsfield High School

- 1 Plan early (I start in August) and identify three or four activities per year that will let your students touch, smell or visualize the real-life connections to your subject.
- 2 Teachers can't know everything. Invite an expert to your class and watch kids light up when that person's specialized knowledge brings real-world relevance to the curriculum. If experts can't come to you, use the technology in your school for a virtual link-up.
- 3 Ask students to build something as part of a Technology/Science project. I had students who wanted to create a desk that would also act as the shell of a computer. I didn't know where to start, but I found a retired engineer who ended up working with them for several months. They built the desk! Budget: \$0
- 4 Have your POP class organize a career fair for the younger students in the school.
- 5 Read a book by a local author in English or French. Invite the author to discuss the book, and his/her writing career, with your class. Or visit a TV studio or newspaper to see first-hand the many roles involved in media production.
- 6 Ask a vice-principal, another teacher or a colleague with Human Resources experience to do mock job interviews with your students. You can tie the interviews to your subject area.
- 7 Go outside the box. An ethical computer hacker came to my Ethics class to talk about the legal outlets for this skill in police work or forensic accounting.
- 8 Encourage students to volunteer at a local charity. They'll quickly learn that volunteering is as demanding as paid work, but often personally more rewarding.

Brent Callahan has taught every subject except music and French. This article is based on a workshop he gave at the Complementary Educational Services Symposium in April.

BrainReach goes to a neuroscience conference!

On September 19, 2012, **McGill's Integrated Program in Neuroscience** will be starting its second year of BrainReach off with a bang. In conjunction with its annual retreat attended by some 500 neuroscientists at all levels of the McGill community, the IPN will be inviting more than 200 high school students involved in BrainReach to the Montréal Science Centre for a half-day of presentations designed just for them.



McGill IPN student,
Jenea Bin.

