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Exemplary Practices



2000–2001 Recipients

Prime Minister's Awards
for Teaching Excellence

Canada

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2000-2001 Recipients
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for Teaching Excellence



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Cat. No. C1-6/2002E

ISBN 0-662-33425-6

53843E

Aussi disponible en français sous le titre *Prix du Premier ministre pour l'excellence dans l'enseignement : Modèles de réussite*.



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Prime Minister



Premier ministre

Teachers are extraordinary people. For the past nine years, I have had the pleasure of personally recognizing some of Canada's most gifted elementary and secondary school teachers and I know this to be true. Teachers are people who regularly go above and beyond their duties and who, like many in our society, work hard every day to support and enrich the lives of others: in this case our children.

Teachers play a powerful role in communicating the values and traditions that Canadians hold dear. Whether in a small school in Repulse Bay, Nunavut, or a high school with over a thousand students in Vancouver, British Columbia, teachers are helping to ensure that our values of tolerance, diversity and compassion are alive and well in the classrooms of Canada. In addition, teachers work hard every day to equip our young people — the leaders of tomorrow — with the knowledge and skills they need to succeed in the 21st century. Combined, these efforts will help ensure that Canada remains one of the best countries in the world in which to live.

It is my pleasure, therefore, to present the latest edition of *Exemplary Practices*, a collection of thoughts, ideas and innovative practices from some of Canada's most outstanding teachers — teachers whose wisdom and passion for learning will inspire and motivate fellow educators and all who read about them.

Congratulations, once again, to the 2000–2001 recipients of the Prime Minister's Awards for Teaching Excellence, and thank you for your contributions to Canada's future.

Welcome

Exemplary Practices — both this publication and a feature-packed Web site (<http://www.pma-ppm.ca>) — showcase the creativity and commitment of the 2000–2001 recipients of the Prime Minister's Awards for Teaching Excellence.

The 15 Certificate of Excellence recipients, hailing from every part of Canada, gathered in Ottawa in May 2001 for three days of “best practice sessions.” During these sessions, in often lively and informative discussions, the teachers shared their thoughts and experiences of teaching.

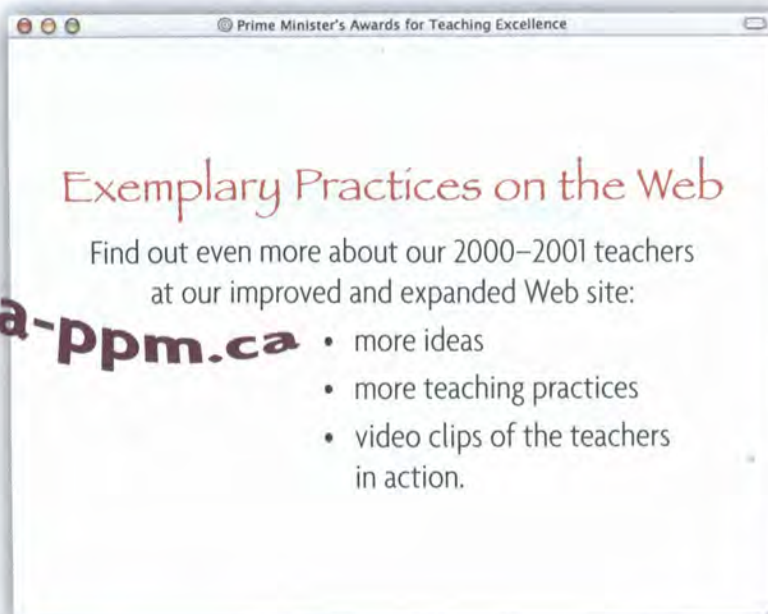
They looked at some of the important issues and challenges facing education today: teaching communication skills, the role of elementary school in creating lifelong learners, teaching science to students with a wide range of abilities in a rapidly changing world, professional development as a means of keeping abreast of those changes, and, finally, meeting the needs of exceptional students.

In the text of this publication and throughout the Web site, you will find the results of those discussions, sidebar examinations of related topics and many innovative teaching practices. You will also see personal and professional profiles of the award-winning teachers and information on how to contact them.

Also included is information about the 50 recipients of the Certificate of Achievement — even more teachers from across the country who have made a significant contribution to their schools and their communities, background on the Prime Minister's Award program and details about our generous corporate sponsors.

We at the Prime Minister's Awards program hope you find the 2000–2001 edition of *Exemplary Practices* a valuable resource. If you have any comments, please contact us by phone (1 800 575-9200) or e-mail (pmawards@ic.gc.ca).

<http://www.pma-ppm.ca>



We want to hear from you!

As the Prime Minister's Awards for Teaching Excellence program approaches its 10th anniversary, we'd like to know what readers think of our flagship publication, *Exemplary Practices*.

This compendium of best teaching practices and ideas about education has been published for each group of top-level recipients. Each year's *Exemplary Practices* is also available on the program's Web site.

As the possibilities for publishing on the Internet become more sophisticated, we have put considerable energy into making the *Exemplary Practices* Web site an interesting, interactive and useful resource for educators. For the first time, this year, for example, we have included videoclips of our Certificate of Excellence recipients in their classrooms. At the same

time, the print publication offers an indepth look at our outstanding recipients.

We have received a lot of positive feedback about *Exemplary Practices* over the years. To ensure that the publication remains a valuable teaching resource, and as we enhance our electronic presence, we'd like to know what you think about *Exemplary Practices* and how it can be improved.

We encourage you to take a look at this book and our new and improved Web site (<http://www.pma-ppm.ca>), and then take a moment to drop us a line, either by post, fax or e-mail, or call our hotline (all the contact information is below) with your comments. Or, you can fill out a quick online survey on our Web site.

Thank you.

Prime Minister's Awards for Teaching Excellence

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Meet the Teachers

Clarence Button
O'Donel High School
Mount Pearl, Newfoundland and Labrador

Clarence Button, who worked as a field biologist and fisheries scientist before becoming a teacher, worries that Canada is not producing enough scientists. Statistics show that the country simply is not keeping pace with its economic rivals. Button has launched an entire second career to do something about this. First, he got involved in educational programming and evaluation. That experience convinced him that he could do even more, so he became a teacher.



Most science teaching is boring, he says, because it is content-rich and process-poor. "Kids spend too much time being fed information and not enough time doing science." To remedy this, Button decided to make sure his students always had the opportunity to do hands-on work, even if it meant he had to go the extra mile to make it possible. He believes that all students, especially underachievers, can benefit from hands-on, laboratory-based instruction.

Button teaches biology, science, co-operative education, computer technology and robotics, for which he has particular enthusiasm. He has spear-headed interest and participation in robotics throughout his school district, and has seen eight district schools get involved and participation increase from 20 students the first year to more than 200 in five years. The program has moved from a basic woodworking shop to facilities at Memorial University and several advanced fabrication facilities.

Button devotes the same energy and enthusiasm to his other teaching projects as well. His co-op program has been very successful at placing students in the "real world" of private enterprise and public institutions. Students in regular biology classes are able to take part in a wide variety of field trips and environmental projects. He has also aggressively and successfully sought funding for his school's information technology programs.

And students have responded. The robotics students have done very well in competition, enrolment in Advanced Placement courses has increased substantially and academic performance of all students has improved.

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Claire Frankel-Salama
Bishops College
St. John's, Newfoundland and Labrador

Language class is more than memorizing verb tenses when Claire Frankel-Salama is the teacher. "No matter what you teach, if you're not passionate about it, how are you going to convince students to care enough to learn?" she asks. She's passionate about languages because of what she sees as a disturbing movement towards a uniform global culture and a corresponding loss of languages and cultural diversity.



Frankel-Salama transmits this passion to her students, keeping student interest and excitement high by bringing arts, music and drama to her language classes, using Francophone African rap, Latin American pop, Spanish ballads, poetry and theatrical productions. Well-subscribed French-language history and economics classes are enlivened with innovative projects that integrate technology into learning and content from other subject areas into the lessons. Students create presentations modelled after Team Canada trade missions, or learn about the stock market using French-language sites on the Internet, electronic spreadsheets and PowerPoint presentations. With constructive and relevant feedback, Frankel-Salama also develops students' language skills and encourages their successes in local, provincial, national and international public speaking competitions.

A teacher since 1976, Frankel-Salama has seen many changes in her students over the years. They are more flexible in their learning today, she notes, better able to access information from a wide variety of sources. In response, she has been a leader in integrating technology into the classroom and in developing new curriculum, a mentor to new teachers and student interns, and a presenter at professional development sessions on teaching languages.

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Susan Quinn**Holy Heart of Mary Regional High School
St. John's, Newfoundland and Labrador**

Some students have extraordinary gifts and others have more ordinary ones, but all are capable of creating magic. Susan Quinn can, and frequently does, get just as excited and emotional about the performance of a simple pop song by the members of her concert choir as she does by a recital-winning performance by a student clearly headed for the concert stage.



"It isn't our gifts that make us special. It is the extra effort and perseverance we put into putting those gifts to work," she explains. Students who learn that lesson will see an enormous payoff in terms of greater confidence, ability to continue in the face of difficulties and effective skills for communicating and working with others. And musical training is an ideal way to do this.

Providing opportunities for musical training is a large part of what Susan Quinn has accomplished. She has developed a vibrant music program at the school, including Advanced Placement and International Baccalaureate courses. She has also formed and trains five choirs: a concert choir open to all, and auditioned boys, girls, chamber and madrigal choirs.

These choirs have won provincial, national and international awards, performed on national television and radio, and have produced CD recordings of their performances. Her students also gain valuable organizational skills learning to manage their own time as well as plan, raise funds and run concert tours.

And then there is the magic: "It was our last rehearsal and everything came together — the hard work, the sacrifices, the long hours — and you could hear it all in this simple, honest and moving performance. There was nobody there to hear it but they had done it and they knew it and they were so proud of themselves."

Holy Heart of Mary Regional High School**55 Bonaventure Avenue****St. John's NL A1C 3Z3****Tel.: (709) 754-1600****Fax: (709) 754-0855****E-mail: squinn@stemnet.nf.ca****Web site: <http://www.hhm.k12.nf.ca>****David Pilmer****The Hants East Rural High School
Milford, Nova Scotia**

David Pilmer is very good at responding to a question with another question. In his mathematics classes, the point is not the answer but learning how to think mathematically. His students do a variety of activities, exercises and investigations that he has carefully designed to help them learn to develop and apply mathematical techniques to solve problems. A key part of this is students learning how to step back and assess a situation critically and then to creatively apply what they know in these situations.



Pilmer has a gift for creating innovative and thought-provoking projects that present real-life, hands-on examples of mathematical concepts. Students learn to work in groups and manage their time and tasks to meet the homework deadlines. This experience prepares them well for post-secondary education; the average mark for graduates in first-year university calculus is A-.

Pilmer's fellow math teachers and others in the educational field were quick to recognize his abilities in these areas. In his second year as a teacher, he was already creating programs and giving workshops on teaching problem solving in mathematics class. Since then he has helped develop computer-guided math lessons, acted as a consultant for textbook publishers and pioneered the introduction of a new mathematics curriculum in Nova Scotia.

He has also been a supporter of new technology in the classroom. In addition to his work in computer-based learning, Pilmer has been a long-time champion of graphics calculators. He argues that any technology introduced into the classroom must be supported. Graphics calculators are a proven and reliable technology that any teacher can understand and use with assurance.

The Hants East Rural High School**Milford NS B0N 1Y0****Tel.: (902) 758-4620****Fax: (902) 758-4626****E-mail: pilmerd@staff.ednet.ns.ca****Web site: <http://www.herh.ednet.ns.ca>**

Hugues Émond
École Sainte-Marguerite
Magog, Quebec

Hugues Émond decided that tinkering a little here and improving a bit there wasn't enough, so he went back to the drawing board to reconceptualize everything he was doing. The result was the Virtual Class, a learning environment where students use computer technology to interact, solve problems and publish their assignments. The students work together over a number of years, learning at their own pace, and collaborating on interdisciplinary projects.



Technology is an important aspect of the Virtual Class, as its name indicates. Émond believes it is essential that today's students master information and communication technologies (ICT) in everyday life, because these tools will be an integral part of their lives and work later on. Moreover, computer use seems to have become inherently motivating. ICT, he argues, should therefore be integrated into school curricula as much as possible, to be used as teaching tools, on par with textbooks.

The Virtual Class definitely caught the students' attention. Absenteeism dropped by 70 percent. Class attendance was boosted further by visits from a number of people taking an interest in Émond's work and teaching methods: Quebec's minister of education, undergraduate and graduate education students, parents, journalists, politicians, and other teachers. The class even made an appearance on television.

Émond started the new millennium by assuming new responsibilities. After 15 years of teaching, he became the principal of two small rural primary schools for the Commission scolaire des Sommets, École Notre-Dame-de-l'Assomption in Saint-Georges-de-Windsor, and École Christ-Roi in Saint-Camille.

However, Émond's career change has not slowed him down. Since the beginning of the school year, he has been in charge of a pilot project that Quebec's department of education is currently developing, called L'école éloignée en réseau [the Remote School Network]. This project is intended to demonstrate how students from schools located in remote regions of Quebec can use — with the help of technology and networking — the same learning support services throughout their primary education.

The collaboration and learning platform developed for this project constitutes a source of information for anybody who would like to learn more about this project (<http://www.zar.ca>).

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Lucie Laroche-Tétrault
École de la Mosaïque
Saint-Basile-le-Grand, Quebec

Lucie Laroche-Tétrault starts off the year with a theme that touches on all upcoming projects and piques the students' interest. The children are thus able to discover the pleasures of astronomy at the Parc du Mont-Mégantic's ASTROLab and invent their own planet, just like the Little Prince. Or what about going back in time and spending the year at the court of King MacSangrav? Students learn about life in the Middle Ages through books, poetry, laments and stories. Not only do they learn about it, they actually experience it by making the acquaintance of handmaids, archers, tasters and troubadours; role playing, puppet shows, the creation of one's own coat of arms... the possibilities are endless. Or, with the help of Sir Cumflex of Umlaut, knight at the king's court and journalist in another life, students become initiated into journalism. The result of these workshops: the most beautiful medieval newspaper ever seen, an original news bulletin entitled *La vie en mauve* [Life in mauve], and a brochure promoting one of Quebec's tourist destinations.



This variety of educational activities broadens the child's knowledge and enables him or her to acquire skills. Is this the best way for students to build self-confidence and be successful later in life? Laroche-Tétrault certainly thinks so.

And she has managed to convince others: *La forêt de la Belle au bois parlant* [The Forest of Speaking Beauty], a project she is directing together with communications specialist Sylvain Perreault was so popular with her Grade 6 students that it was adopted for the lower grades as well. The project received the Roy C. Hill Award and a grant from the Association québécoise des éducateurs et éducatrices du primaire, the Quebec primary teachers' association.

Laroche-Tétrault also manages *Ça Presse*, a newspaper that is published by students from Grade 4 to 6 and that has won awards from *Mérites du français et de la francophonie en éducation* [an education award for French language and culture] in the primary student newspaper category. These projects, among others, have helped students of all levels learn how to tell stories and convey information, present and defend arguments, determine when and how to appeal to emotions, and expand their vocabularies.

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Kathy Forsythe-Lantz
Waterloo-Oxford District Secondary School
Baden, Ontario

"There is dignity in risk," says Kathy Forsythe-Lantz. Throughout her career teaching developmentally delayed youth, she has pushed the boundaries of what was believed possible for these students, bringing their school and life experience nearer to that of other children.



With this in mind, she's taken a class of special needs students on a three-day camping trip, taught sign language to elementary students so that they could communicate with her deaf student and initiated a for-credit peer tutoring program at her school. Special needs students and peer tutors participate in physical education, woodworking, music and art classes together.

Believing that work experience is an essential part of special needs education, Forsythe-Lantz developed an extensive School to Work program. A wide network of prospective employers, and grants and employment-creation funding, enable students to acquire valuable job and life skills experience. Many students gain summer or full-time employment from these placements. A school Eco-Garden grown out of her love and respect for the environment gives her students still more hands-on experience and brings environmental awareness to the whole school population.

This commitment and advocacy isn't limited to the classroom or community. A member of the Ontario Association for Developmental Education (OADE) in a variety of capacities for more than 30 years, she has been involved in the development of new educational standards for the intellectually disabled.

Kathy Forsythe-Lantz is now retired from teaching, but continues to work with this special population. She is still on the executive of OADE, is a managing partner with Ontario Special Olympics and serves on a committee to encourage younger participants, and advocates for parents and students when needed.

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Marlene Walther
Westgate Collegiate and Vocational Institute
Thunder Bay, Ontario

Marlene Walther is excited about lifelong learning. She shares that excitement with her students, showing them how a willingness to explore and learn can lead to some amazing adventures and successes. Her newspaper course based on business English and technological design demonstrates to students the connections between their learning in the classroom and their future real world of work. International trips open her students' eyes to the wider world and teach them to tolerate and respect other people's customs and traditions.



Walther shares her passion and acquired expertise with her fellow teachers as well by providing lesson plans to new teachers and creating packages of course resource materials at Westgate Collegiate. For several years, she was the Computers Across the Curriculum Resource Teacher and Chair, encouraging and assisting fellow teachers to implement computer technology in their teaching practices and classrooms.

In pursuit of her own lifelong learning, Walther completed a master's of education degree, and between 1995 and 2000 gained credentials in English as a second language, design and technology, co-operative education and Cisco networking. Last, but by no means least, in her current position as laptop coordinator and computer teacher at a private girls' school in the United Arab Emirates, she is helping teachers and students in grades 7 to 11 use computers in all subject areas.

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Writing and comp
Articles
Opinion pieces, columns
Headlines and captions
"Hooking" the reader
A/V's
Comics
Internet (connectivity)



Richard Hechter
The Collegiate at the University of Winnipeg
Winnipeg, Manitoba

Richard Hechter accomplished a lot in his first three years of teaching.

For example, he played a large role in the development of a telecourse in physics. The course, the first of its kind in Manitoba, is broadcast over the province's cable television networks to students who live in remote areas, who have disabilities that make classroom learning difficult or who have responsibilities that make attending regular school difficult. He teaches the course in a study in front of a "live" classroom of approximately 25 students. Distance students follow the course on television and can submit questions by phone or e-mail. In addition, Hechter created the 250-page telecourse workbook that is used by every student. (This text became so popular that a small underground market has developed for it, with some copies showing up as far from home as Taiwan.)

Hechter has also accomplished a lot in "regular" classrooms. He creates innovative field trips and classroom activities, such as a yearly amusement park trip that allows students to study the laws of physics in action, a screening of the Harry Potter movie to begin a unit on how modern science grew out of alchemy, and the use of a Hot Wheels racing track to demonstrate scientific principles.

In addition, he has formed alliances with outside organizations to create new learning opportunities for his students. One such alliance has resulted in his class making an annual visit to the Boeing Space Laboratories.

The most important alliance for Hechter is the one he has formed with his school. The Collegiate at the University of Winnipeg is unique in Canada in that it allows students to begin work at a university level while still in high school. The students are allowed considerable freedom in which courses and instructors they pick. The high enrolment in every course he teaches — and he teaches some of the most difficult material — is testimony to his abilities.

Hechter's association with the school is longer than three years. He traces his own enthusiasm for both science and teaching to the days when he was a student at The Collegiate.

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Connie Buchanan
White City School
White City, Saskatchewan

Connie Buchanan does a great variety of things in her classroom. So many, that several other Prime Minister's Award recipients said they were in awe of the range and depth of the approaches she has adopted. What they all have in common is that each approach is carefully planned to help children identify their gifts, nurture their growth and encourage their development.

She has, for example, developed intensive thematic units integrating various subject areas. She and her students have creatively transformed her classroom into a simulated environment during such themes as Medieval Times, Rocks and Minerals, The Titanic and *Winnie-the-Pooh*. Students have also written, planned and performed plays, researched, written and published newspapers, and built complex models.

Buchanan has investigated and implemented new teaching methods such as grade looping. This approach has one teacher stay with the same group of students as they move through a number of grades, 4 and 5 in this case. This allows the teacher and the students to develop deeper bonds of trust and respect. It is especially beneficial in the second year because there is no adjustment period at the beginning of the year, she explains.

Buchanan also pioneered the increasingly popular use of electronic portfolios in her district. Her students are taught to use Microsoft PowerPoint to record journal entries, assignments, achievements and artwork. At the end of each year, or two years for looping students, the entire portfolio is transferred onto compact disc.

The portfolios also contribute to another of Buchanan's initiatives, involving parents. She builds solid relationships with parents by sending home reports and newsletters, involving parents in student evaluation and encouraging parent tutors.

And there is more: extracurricular activities, supporting student council and other student projects and taking part in environmental initiatives. Since receiving her Prime Minister's Award, Buchanan received a Teaching Excellence Fellowship from the University of New Brunswick.

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Lorraine (Lola) Major
Lethbridge Collegiate Institute
Lethbridge, Alberta

Lola Major wants to open students' minds and help them become divergent thinkers. At an age when they tend to see things in "black and white," her social studies students develop creative, independent thinking with challenging and interesting lessons using current issues to highlight the causes and effects of history. Crosscurricular links from her wide knowledge and understanding of social studies and world issues help broaden their viewpoint still further. Major sets high but realistic standards for all her students and gives them numerous opportunities to express their developing opinions in a variety of forms from essays to political cartoons.

Seeing her own learning as a means to improve the learning of her students, Major strives to develop flexible, divergent and innovative thinking herself. An energetic participant in numerous professional development sessions, and someone who constantly upgrades her knowledge of curriculum resources, she has also acquired a professional diploma in education from the University of Lethbridge and a master's degree in administration and curriculum from Gonzaga University in Washington state.

Major shares her expertise and knowledge with her fellow teachers whenever possible, acting as leader in a wide range of professional development venues. Major has taught social studies methods at the University of Lethbridge, presented at teachers' conferences across the country on social studies teaching and contributed to the development of social studies curriculum and provincial diploma exams. She has also written a guide for elementary teachers on developing and leading field trips, a guide for secondary school teachers on cultural and international field trips, and a number of curriculum-based materials.

Major continues to teach social studies at Lethbridge Collegiate Institute. In May 2002, she was honoured as distinguished alumnus of the year at the University of Lethbridge.

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Peter Gardiner
St. Michaels University School
Victoria, British Columbia

"I don't know," is not an acceptable answer in Peter Gardiner's class. For while it may be the case that students do not know an answer, they know something, and that something is enough to get them started on the road to knowing the answer. Simply saying "I don't know" is an act of surrender.

It is also an act of betrayal, says Peter Gardiner — not of anyone else but of themselves. Students who take this approach are telling themselves that they won't even try, explains Gardiner. He knows that students are capable of a higher level of performance than they give themselves credit for, and he helps them discover just that. To do this, he employs a wide variety of teaching strategies, creates interesting hands-on exercises, provides clear demonstrations of difficult concepts and encourages lively discussion.

Gardiner has, for example, created an extracurricular biotechnology program in partnership with a biotechnology company. This lab-based evening course gives students practice in current techniques and insight into their use and implications for society. This will lead to the establishment of a biotechnology summer program for teachers and gifted students.

The level of commitment Gardiner demonstrates and insists on from his students is reflected in their achievements, such as higher than average marks in senior-level biology courses with virtually no attrition, and high scores, usually at the university-equivalent level, in Advanced Placement courses.

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Barry Lindahl
West Vancouver Secondary School
West Vancouver, British Columbia

When we look at the world today, we are looking at the results of history, Barry Lindahl tells his students. Our economies, political systems and cultures have evolved over thousands of years, and in order to live and succeed in the world, we need to understand how it came about.

Lindahl's history and social studies courses prepare students to be motivated, confident and excited about their success in our complex and evolving world. Confidence and motivation comes from success in essay writing, note-taking and studying; excitement comes from extensive PowerPoint presentations of history courses, complete with images, sound files, maps, movie clips and text. These presentations enrich the classroom environment and are accessible from home or any computer in the school. Students can prepare for classes, review material outside school hours and keep up with classroom learning while absent.

As his PowerPoint collections attest, Lindahl is an enthusiastic advocate of information technology. Hired by the school district to teach other teachers and schools how to maximize their use of computer technology, he visited other classes and schools to demonstrate and advise on methods to integrate computers into teaching. After two years, 70 to 80 percent of teachers in his school were using technology. In addition, he develops, organizes and presents course material and workshops on teaching social studies and using technology for professional development days. Courses include five one-day workshops a year on using PowerPoint as an instructional tool.

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Wendy Van Haastregt
Burnsview Junior Secondary School
Delta, British Columbia

Wendy Van Haastregt creates individual, competitive and cooperative activities that act as catalysts to spur her students' natural learning abilities. These innovative teaching and evaluation strategies also bring life and relevance to science.

She has, for example, transformed her classroom into a model of the human body, with ribbons for blood vessels and tables for organs. The students travel along the ribbons to the amplified beat of the heart, picking up and discarding "nutrient" and "waste" cards along the way. Similarly, she has demonstrated principles of electricity by creating a circuit of boys as electrons, furniture they must climb over representing resistance, and girls as clustered protons, creating greater attraction for the electrons.

Her students work in groups to create board games, story and comic books, skits and video and computer productions. They are also asked to collaborate with community science specialists in independent, practical experiences in selected fields, such as industry, the environment and health. They then bring the lessons they learn back and share them with their peers.

In response, both students and their parents have requested Van Haastregt as science teacher. One Grade 9 class presented a petition asking if she could teach them in Grade 10 as well. When surveyed, 98 percent of students rated Mrs. Van Haastregt's class as "good" or "terrific," and almost 100 percent of her students indicated a positive shift in their attitude towards science in her classes.

Since receiving the Prime Minister's Award, Van Haastregt was granted a Teaching Excellence Fellowship with the University of New Brunswick. She spent this fellowship working with the faculty of education and practising teachers, presenting workshops on brain-based teaching.

Building on that experience she travelled to White City, Saskatchewan, in the fall of 2002 at the invitation of fellow recipient Connie Buchanan to speak to teachers and parents about brain development and how it relates to nutrition and healthy lifestyle.

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Carmie MacLean
Tusarvik School
Repulse Bay, Nunavut

What happens when an experienced, caring, talented teacher meets a classroom of northern children with no cultural history of formal education? Both the students and the teacher change.

Carmie MacLean's experience in "the South" included teaching secondary and primary math and science, being head of a special education department and getting a master's degree in education.



In the North, her Grade 6 students' experience of school was very different. Many complex factors, including but not limited to, different educational expectations on the part of students and the community, scarcity of trained teachers, and cultural differences created a school and education environment unlike that of the South.

MacLean created several incentives to improve weak language skills, such as e-mail accounts for those with sufficient literacy skills, personal letters in response to journal entries and a daily class letter on the board. In addition, recognizing that the proposed curriculum frequently did not adequately address the backgrounds, learning styles and environment of her students, she put a great deal of time and emphasis on program adaptation and modification.

Her program uses concepts and items familiar and relevant to her students as a bridge to new material, better work habits, improved classroom behaviour and a developing interest in the outside world.

Always looking for new adventures in learning and better ways to teach, MacLean has received numerous awards over her teaching career, including the Hilroy Fellowship Award and the Dr. John Bryant Memorial Scholarship. Although officially retired, she spent two months of the 2001–2002 school year teaching at Sir Alexander Mackenzie School in Inuvik. In September 2002, she returned to Repulse Bay for a month to help introduce The Academy of Reading (a comprehensive software reading program) to the students and staff of Tusarvik School.

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The 21st Century Classroom: A Model for Tolerance



Not that long ago, in most classrooms across Canada, the faces and attitudes of the students and the teachers were very similar, and those who stood out for whatever reason — the colour of their skin, their religious beliefs, a disability — really stood out.

Not so at the beginning of the third millennium.

Today's classrooms are, most often, a multicultural mix of backgrounds, beliefs and abilities. You'd think, then, that being tolerant of those who are different would be second nature to students today, but not so. If anything, promoting tolerance, and with it the ideas of good citizenship, is more difficult than ever.



"I am free to speak my mind. I am not afraid of being persecuted for being an individual. I know that I will be respected for my beliefs and values — as long as I have the same respect for others."

—Senior high school student



Lola Major

"Twenty-first century learners and teachers realize that citizenship and identity are becoming increasingly complex," says Lola Major, a social studies teacher at Lethbridge Collegiate Institute in Lethbridge, Alberta. In her 30-year teaching career, the make-up of Major's classes has changed dramatically, which is also the case for many of the 2000–2001 Prime Minister's Award recipients.

This complexity means that there are many more factors than ever before affecting students as they develop their attitudes. "Tolerance develops via students' relationships with their familial, social, physical, spiritual, cultural, economic, political and technological environments," says Major. Given that all of these are at play in the classroom at any one time, "it is impossible to predict that positive tolerance will naturally evolve even in multicultural classrooms."

How does a teacher approach tolerance, diversity and citizenship?

For Major, the key is *divergent thinking*. "In my social studies classes, I help students to look at all points of view and critically analyze all available information. This encourages students to be open-minded. In their adult lives, this will help them interact with a wide variety of people."

Major is helped in her efforts by the Alberta curriculum, which ensures that students study values, rights and obligations associated with citizenship and civic participation using an interdisciplinary approach that looks at things such as culture and community, the land, people, power, authority, decision making and global connections.

Students participate in a wide variety of anti-racism and citizenship activities, both inside and outside the classroom. What they absorb through these experiences comes through loud and clear in short essays Major has them write each year about what it means to be a Canadian citizen. Here is what one senior high school student wrote.

I am free to speak my mind. I am not afraid of being persecuted for being an individual. I know that I will be respected for my beliefs and values — as long as I have the same respect for others. When I walk down a crowded street I am intrigued by the diversity I see. I have been raised to embrace the differences in others — and appreciate their uniqueness.

Very sound ideas from a teenager. And it's easy to see where they come from. With her "proud Canadian" sweatshirts and warm, inclusive manner, Major is a walking, talking

example of the sort of person she helps her students become — a model of a tolerant citizen.

This idea of modelling behaviour — showing students what it is to be tolerant rather than telling them — struck a chord with other Prime Minister's Awards recipients.

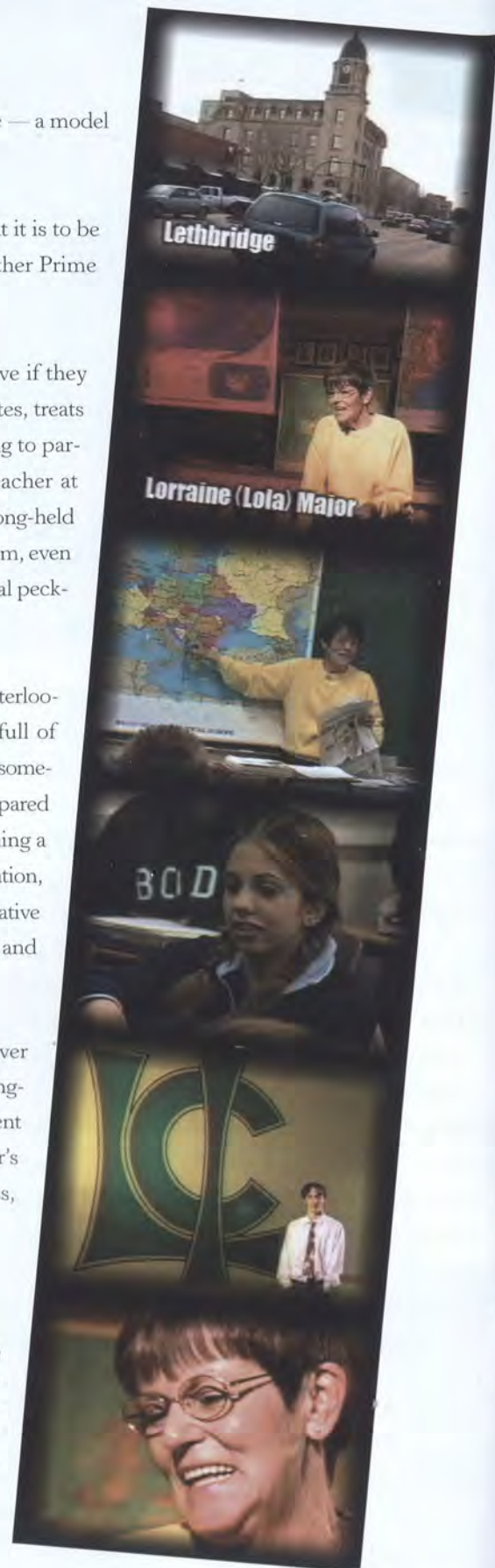
"There is little use telling students how they should behave if they observe, in their uncanny way, that their teacher has favourites, treats certain students differently, or shows less respect and caring to particular individuals," says Carmie MacLean, a Grade 6 teacher at Tusarvik School in Repulse Bay, Nunavut. Interestingly, this long-held view of MacLean's was put to the test in her northern classroom, even though all her students were Inuit. They still fell into the usual pecking order and cliques.

Kathy Forsythe-Lantz's class of special needs students at Waterloo-Oxford District Secondary School in Baden, Ontario, is full of differently abled people, so modelling and teaching tolerance is something this caring and thoughtful teacher does regularly. She prepared her students for the arrival of a boy from Somalia by watching a video about the geography, music and people of the African nation, cooking Somalian food and learning phrases in the student's native language. The students greeted their new classmate in Somali and welcomed him with great hospitality and acceptance.

Barry Lindhal, a social sciences teacher at West Vancouver Secondary School in West Vancouver, sees awareness as bringing tolerance and understanding. "Education can give a student the uncomfortable experience of 'walking a mile in another's shoes.' The experience can either bring blisters or awareness, and, hopefully, with awareness comes tolerance."

Lola Major
Lethbridge Collegiate Institute, Lethbridge, Alberta

Excellence in both teaching and leadership are characterized by excellence in people skills, says Lola Major. Excellence is important because people are important. If you care more than others think is wise, risk more than others think is safe, dream more than others think is practical and expect more than others think is possible, then you will achieve excellence. Describing herself as energetic, enthusiastic and eager, she regards teaching as a challenge: a challenge to be a better teacher tomorrow than she was today.



The Perfect Principal

Students go to school to study. Teachers go to school to teach. Principals go to school to ... ?

As teachers are the leaders in their classrooms, principals are the leaders in the school. It's a complex and demanding job, requiring a tug-of-war balance between administrative and managerial skills with even more responsibility than teaching.

"A good principal is learned, well acquainted with educational philosophy and management," says Barry Lindahl of West Vancouver Secondary School in West Vancouver, British Columbia.

"The principal has a vision for the school," says Claire Frankel-Salama of Bishops College in St. John's, Newfoundland and Labrador (whose principal and school have an impressive record of Prime Minister's Award recipients), "and knows how to get the most out of the staff to achieve that vision."

Marlene Walther of Westgate Collegiate and Vocational Institute in Thunder Bay, Ontario, adds that "the principal gives the teachers leeway and unconditional support, both encourages and protects the staff."

This vision and support includes arguing in favour of a new program, promoting a teacher's initiatives to the school board, or encouraging a teacher's professional development. It can also include correcting a teacher. "When necessary, the principal will discuss a problem with the teacher," says Carmie MacLean, a teacher at Tusarvik School in Repulse Bay, Nunavut. This is difficult to do, but the teacher, the students and the school benefit, she comments.

A principal develops a vision for the school and gets to know the staff and students by spending at least as much time in the classrooms and hallways as in the office. Teachers agree that this is the only way a principal can become aware of the strengths and weaknesses of the various departments and see what needs to be done to make the school better.

Effective leadership involves contact "at least a few times each term," says Lindahl. And feedback. "A good principal gives lots of feedback to the teachers, says thank you for a job well done," says MacLean, commenting that this kind of endorsement from a peer can be just the boost a teacher needs at the end of a long day.

The leadership style of the principal goes a long way towards determining the atmosphere of the school. "A good principal uses a lateral model rather than a hierarchical model of leadership," says Frankel-Salama, "treating the staff with respect, giving them responsibilities within the school, encouraging learning from each other."

"And making assignments in consultation with the teachers," adds Lola Major from Lethbridge Collegiate Institute in Lethbridge, Alberta, explaining that when teachers have some input into their teaching assignments, not only is there a better match between their strengths and the class assignments, but teachers are happier (and more productive) with the unavoidable incompatible assignments.

While there's no one adjective to describe what principals do at school, it's clear that they are essential. Overseeing the complex bustle of school activities, the principal leads the school to excellence the way teachers lead their students to academic success.

What Happened to Social Studies?

Social studies isn't what it used to be. More than just civics and history, social studies prepares students for their futures in a variety of ways.

"They learn to be divergent thinkers," says Lola Major of the social studies students she teaches at Lethbridge Collegiate Institute in Lethbridge, Alberta. They learn "to look at all points of view and then make a critical analysis." Social studies can help students become better thinkers and better people, she explains.

They might organize an all-candidates forum at their high school or draw political cartoons about current events, as Major's students do. They might travel to Russia to observe first hand the social, political and economic conditions there, as Barry Lindahl's West Vancouver Secondary School students have done.

Regardless of the activities, students learn a mix of history, geography, humanities, politics, economics and environmentalism that "helps them understand how their world evolved," explains Lindahl.

They don't stop at understanding and critical analysis. Lindahl's students write about social issues for essay competitions, including the Royal Commonwealth Essay Competition. Major's students make posters for the anti-racism competition sponsored by the Department of Canadian Heritage and for contests sponsored by the Legion and Veterans' Affairs commemorating Remembrance Day. They also serve at community charitable organizations such as the local soup kitchen and Tabs for Insulin.

Both teachers emphasize that today's social studies students are tomorrow's businesspeople, politicians, professionals and voters. Social studies courses help them understand how our society developed, learn from the mistakes and successes of the past and create a better future.



Communication Skills: The Skills Everyone Needs

At one time, all an ambitious youngster needed to get ahead in life was some skill with hand tools, an ability to memorize the songs and tales of his tribe and enough knowledge of a second language to barter in the dialect of a village in the next valley.



Today's young person needs more. Memorization and simple information transfer are no longer enough (if they ever really were). Now that same up and coming youngster needs not only to read and write in a variety of media, but to appreciate other viewpoints, quickly grasp new information from a variety of sources, develop informed conclusions and communicate them to others effectively.

*“What I hear, I forget;
what I see, I remember;
what I do, I understand!”*

—Clarence Button

Marlene Walther



Claire Frankel-Salama



Barry Lindahl



Teachers agree that this ability to communicate well — the ability to express oneself clearly and concisely to others and the ability to understand, analyze and use information communicated by others — is vital to academic and personal success.

“Good communication skills really are the skills that everyone needs,” says Claire Frankel-Salama, a French- and Spanish-language teacher who also teaches economics and history in French at Bishops College in St. John’s, Newfoundland and Labrador. Frankel-Salama points out that economic globalization, combined with modern communication technology, means that everyone — be they scientist, bureaucrat or businessperson — is now working in a multicultural, multilingual worldwide market. Nothing, including whether or not the person you’re talking to understands your message, can be taken for granted.

Wendy Van Haastregt, a science teacher at Burnsvew Junior Secondary School in Delta, British Columbia, remarks that multicultural student populations mean that it is increasingly common for there to be three or more “mother tongues” in any one class. Even communicating a lesson can’t be taken for granted.

What are Communication Skills and How Do You Teach Them?

Obviously communication skills are more than the ability to hear and speak. But just what are they? Are they tangible sets of knowledge that can be explicitly taught, such as spelling and the rules of punctuation, or are they intangible skills assimilated in the course of learning another discipline? What can teachers do to develop good communication skills in their students?

Marlene Walther, a design technology and business English teacher at Westgate Collegiate and Vocational Institute in Thunder Bay, Ontario, thinks that communication skills can and should be explicitly taught. She suggests the best way to teach these tangible sets of knowledge is through what she calls authentic learning. “It’s not enough any more to just to teach the rules of spelling and punctuation,” she says. “They have to be put to use.”

Walther identifies the following elements of good communication:

- reading, including analyzing what is read
- writing, including the ability to use different styles in different situations
- researching in various media, including interviewing
- proper use of grammar, spelling and punctuation
- criticism, both self-criticism and feedback from others, and the ability to plan for self-improvement.

Barry Lindahl, who teaches social studies and history at West Vancouver Secondary School in West Vancouver, British Columbia, lists the basic communication skills as reading, writing and listening, but believes that the full list is too broad and too varied to teach in just one course or one year. Just as it takes years for a youngster to gain proficiency in a mother tongue, it takes time to develop the other elements of effective communication. Time is necessary not only to acquire good communication skills, he says, but to practise, refine and polish them. As well, some communication skills are intangible and best assimilated in the course of learning another discipline. As he points out, “a physical education class will teach teamwork and co-operation. Both are necessary for

good communication, but do nothing for sentence structure.”

Lindahl explains that while there is no best way to teach these skills, “there are a few truisms.”

- We all learn more if we’re enjoying ourselves.
- Genuine rewards work better than bribes. (Lindahl comments that every student-teacher quickly learns this.)
- Give students the knowledge that success is possible — and how to achieve it — and they will usually strive to excel.
- Give students something interesting and they will hear every word. On the other hand, dull topics will bring on the sound of foreheads hitting desks as students lose their collective will to live.
- Emotion is a powerful tool in the memory-process. We all remember most clearly the times we were outraged, overjoyed or saddened.

Frankel-Salama adds that learning a second language can lead to improvements in first-language skills: an understanding of the vital importance of grammar, and a better facility in developing and organizing ideas in order to express them. Again, these are benefits that will only develop over time. “Language is a communication system,” she says. “Once you appreciate that, you gain an appreciation for your own language as well” (see “Second-language Lessons: For Older or Younger Students?” next page).

Marlene Walther
Westgate Collegiate and Vocational Institute
Thunder Bay, Ontario

Marlene Walther feels very privileged to work with young people at such an influential stage of their lives. Their energy and enthusiasm inspire her. While she sees her role as one of helping students achieve their dreams, Ms. Walther insists that it’s up to them to determine how far they go, how fast they get there and where they end up. Some go far beyond what she could ever have imagined.



Second-language Lessons: For Older or Younger Students?

When is the best time to learn a second and third language? Should it wait until a student has a good grasp of his or her mother tongue or should it begin early in his or her school career?

A language can be learned at any time in life, says Claire Frankel-Salama, head of the modern languages department at Bishops College in St. John's, Newfoundland and Labrador. But, "students are at a bit of a disadvantage in high school compared to those who begin in elementary school."

Sometimes students will "get their backs up" when challenged with learning proper spelling and grammar in any language, Frankel-Salama says. She answers these objections with, "Sure, you'll be able to order a sandwich. You'll get your message across, but you won't get it across in a very sophisticated fashion." Sophisticated and effective communication is vital for success in a complex global economy, she points out.

For this reason, Frankel-Salama believes that early introduction to a second language is most effective. Younger students are less inhibited about making mistakes and are more creative, she says. Learning languages early also allows the students time to develop comprehension, skill and facility with the language before they tackle complex concepts and issues in high school.

Frankel-Salama brings the music, food, newspapers, maps and a wide variety of other materials from other countries into the classroom to engage students' interest and keep her lessons exciting and interesting. Students produce entire theatrical productions in French, complete with a closing night cast party with French food, research and negotiate business contracts entirely in French, and prepare presentations about a country for businesspeople and politicians about to embark on a Team Canada trade mission. Students correspond with peers in France by e-mail, and plan "a weekend in Paris" using French tourist Internet sites.

Frankel-Salama's students achieve more than 90 percent success rates in Advanced Placement and French immersion exams, win local, provincial, national and international public speaking competitions and are awarded provincial and federal bursaries for post-secondary studies in languages.

Keeping an Eye on Learning

Marlene Walther, a design technology and business English teacher at Westgate Collegiate and Vocational Institute in Thunder Bay, Ontario, wants to maximize her students' learning and make the most of the time she has with them.

One way she has done this is by developing a business technology course called The Printing Press to teach important communication and employability skills.

Printing Press students produce a school newspaper, *Eye of the Tiger*, six times a year. Working in a full-colour tabloid format, students plan, interview, research, write, edit, illustrate and lay out the entire publication themselves. Each student takes on a particular role in the newspaper and is responsible for all the associated tasks, acquiring a wide variety of communication and thinking skills as they go.

It's an award-winning printed page, too. In its four years of publication, *Eye of the Tiger* has won 16 awards in the annual *Toronto Star* High School Newspaper Award Competition. The course is so educational and enjoyable that some students take it twice, the second year for no credit.

Walther draws on newspaper articles, the Internet and magazines to provide concrete examples of writing style, article organization and editing.

She also collects local, national and international newspapers to show her students examples of newspaper design and layout. Students learn to identify the features that are common to all, then compare and analyze the impact of different designs on the reader. Photos from these newspapers show students examples of creativity, use of angles and techniques, capturing emotion, drama, danger and personal triumph, and well-written captions.

To further maximize student learning and improve the quality of the paper and her students' experience, Walther has developed partnerships with several community businesses and organizations.

- Bowater, a local newsprint company, donates all newsprint free of charge; this reduces costs and makes it possible to publish in colour and to distribute 1500 free copies to the students and community.
- Thunder Bay District Health Unit provides up-to-date information about teen health issues for articles.
- Warner Music donates free music CDs for student review and gives free concert tickets plus opportunities for personal interviews with up-and-coming musicians. (As one student says: "No wonder I love this course.")



It's important to remember, too, the teachers emphasize, that delivering a message (such as a newspaper, an essay or a foreign-language play that teachers can evaluate and mark) is only part of today's good communication skills set. Students need to acquire and assimilate information as well.

Thanks to our technological age, we're no longer limited to what is available at the local library. "Students are now skilled at collecting information from a variety of sources simultaneously," says Frankel-Salama. "As teachers, we need to recognize and adapt to this." At the same time, Frankel-Salama points out, today's workplace requires flexible, adaptive participants, ones that can find original, innovative solutions to problems.

One way teachers can both exploit this information potential and instill the independent, creative thought necessary for the new marketplace is to develop study projects that give students the opportunity to develop independent, original work. Westgate's *Eye of the Tiger* school newspaper is a good example of one such project (see "Keeping an Eye on Learning," previous page).

Such a demanding and complex project requires careful organization and monitoring on the part of the teacher/facilitator. "I never know exactly what each student is doing," Walther explains. "It's up to them to learn the necessary skills and keep me informed." While each student is assigned a task or role in the production of an issue, all students are responsible for keeping a journal and submitting a weekly report on what they are learning and accomplishing. "Some students really get motivated and throw themselves into the project and others don't do very much," she smiles. "While evaluation is a still bit of a judgment call, I can only evaluate what they show me." (For more on evaluation, see page 52.)

In the course of publishing the newspaper, students explore more than just news. Since good communication skills include the ability to appreciate another's viewpoint, students examine various ethical issues: the public's right to know versus an individual's privacy, the value of a news item versus community standards, censorship and intellectual property. Constructive and critical judgments are also vital, and The Printing Press teaches the students important decision-making skills, too, Walther notes. "There are many decisions to be made," she says, "and I teach students which methods are appropriate in different situations."

Claire Frankel-Salama
Bishops College
St. John's, Newfoundland and Labrador

Claire Frankel-Salama sees her work in the classroom not as a matter of lesson plans and student evaluation but as making an important contribution to her school, community and world. Teaching languages and exposing her students to the cultures of the world broadens their horizons and helps them become global citizens. Her contribution extends past teaching languages. Currently, Ms. Frankel-Salama serves on the organizing committee for the French for the Future conference. She is also organizing and coaching the school's Smartask team and teaching a beginner's Spanish course at Memorial University.



Process and Content

Whether we realize it or not, effective communication involves both “process and content.” Process is grammar, sentence and paragraph structure, spelling and pronunciation; all the necessary technical elements without which the best idea in the world is unintelligible. Content, on the other hand, is the critical, analytical thinking that creates and organizes the idea. Without content, process is meaningless noise. Without process, content is babble.

“Teaching kids to put the two together is my job,” says Lindahl. When he began teaching social studies, he found that while his students seemed to know and understand what he was teaching, their written work didn’t reflect it. “It was so frustrating,” he relates. “They tried so hard, but I had to give them low marks.”

Through carefully structured essay assignments, Lindahl shows his students their incomplete sentences, disorganized paragraphs and unsupported conclusions. Given the opportunity and guidance, they learn to write, read critically and rewrite until their work is perfect. And Lindahl is able to evaluate their understanding of the material and their conclusions, unimpeded by the complications of poor writing. As a result, his students learn the skills they need to research, prepare and write a major essay at a very sophisticated level and excel in their understanding of world issues (see “Essay Writing and Note-taking: Interconnected and Invaluable Skills,” right).

Essay Writing and Note-taking: Interconnected and Invaluable Skills

Social studies and history teacher Barry Lindahl knows that giving his students information about World War I or Josef Stalin is only half his job. He also needs to teach them how to use the information, and how to report on what they’ve learned. Lindahl uses essays and assignments to evaluate his students’ learning, but unlike many other teachers, his unique writing assignments maximize his students’ learning by also teaching them how to write a good essay.

All West Vancouver Secondary social studies and history students are required to write three essays per year (in addition to mini-essays, tests and quizzes). Lindahl gives his students a month to complete each essay assignment. In the first three weeks, students have the option of bringing their essays in for Lindahl’s review as often as they like. (One especially anxious student brought her essay in for review 27 times in three weeks.) In the final week, they’re on their own.

It doesn’t take students long to realize the benefits of this offer, and to take advantage of it. “Usually, the first assignment makes it obvious,” Lindahl explains. “The first week of the second essay assignment, the line stretches out the door and down the hall.” He will miss lunch and stay as late as necessary to see all the students.

What do the students learn from this exercise? Lindahl explains it by looking back 30 years to when he began teaching. “I was so frustrated, and so were the students,” he explains. “They’d work hard — I could see they knew the material — but get a disappointing mark. I couldn’t give them a better mark because their essays were missing so many things.”

Instead of ambushing them with failure, he decided to reward them with success. “I show them the incomplete sentences, the disorganized sentences, the unsupported conclusions and give them the chance to fix it.” Students learn to write, read critically and re-write until their work is perfect. And Lindahl is able to evaluate their understanding of the material and their conclusions, unimpeded by the complications of poor writing.

Watching the successes and failures of his students, Lindahl realized that “much of what we test isn’t a test of listening and learning skills, but of note-taking and organizational skills.” Students need to be taught how to effectively find and absorb information as much as they need to be taught to tell someone else about it.

So, Lindahl teaches his students how to take notes. He shows them how to break material up into useable chunks, how to identify headings and subheadings and how to keep and organize notes. If a date or a fact is important, he tells them so very clearly so that they can highlight it. He encourages students to write class notes as questions, so that studying becomes as simple as answering every question.

Over the year, each student quickly develops a personal style of note-taking but one, thanks to Lindahl’s coaching, that yields easy-to-read, content-rich notes for effective studying. Students transfer this skill to other courses and improve their marks there, too.



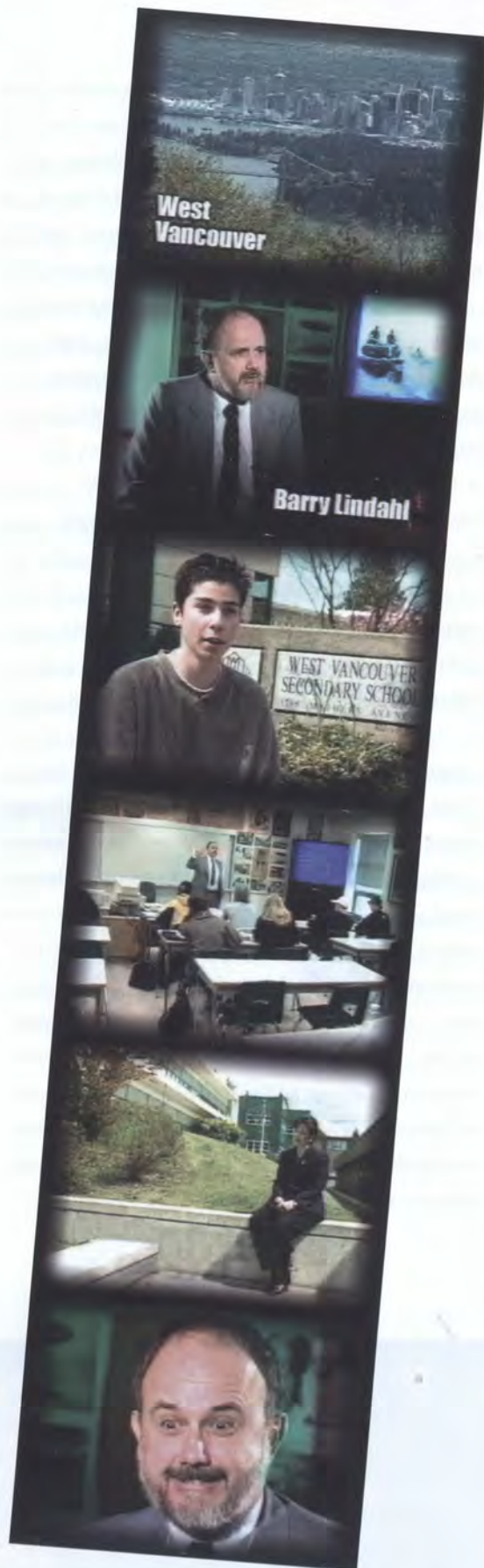
Clarence Button, sciences and technology teacher at O'Donel High School in Mount Pearl, Newfoundland and Labrador, offers similar composition and writing training to his students. His philosophy of "What I hear, I forget; what I see, I remember; what I do, I understand!" is put into action in his classes. Button's students write funding proposals for classroom experiments, write technical papers on the results and deliver lectures to their classmates on those experiments. (See also, "Writing Densely to Communicate Clearly," page 41.)

Indeed, as all the 2000–2001 Prime Minister's Award recipients realize and teach their students, good communication skills and effective communication are too important to be assumed or left to chance.

Frankel-Salama explains that improved skills, be they communication skills or anything else, carry over into other disciplines. Her French and Spanish lessons improve her students' performance in English. Lindahl's students newly developed ability to research and write effectively improves their writing in other classes and in post-secondary education and the workplace. Everyone in Walther's class, from the editor to the typesetter, knows that good communication skills are essential to getting their job done, at school and later in life.

Barry Lindahl
West Vancouver Secondary School
West Vancouver, British Columbia

Barry Lindahl enjoys painting, both artwork in all mediums and his house, which he's been renovating "for the past several years," he says with laugh. Painting, to be successful, requires a concentration on small details and a vision of a larger whole. So does successful teaching — "the most important job in the world," he says. "And if I need to use my lunch period to teach a kid something that he didn't know before, I consider it a good trade for a lunch."



Field Trips: Connecting with the Real World

From 12-day tours of Europe to an afternoon spent at the local paper plant, field trips show students the context and connections of their academic learning, often in depth and detail not possible in the classroom.

"Two weeks on a trip is worth 20 years in the classroom," says Lola Major, social studies teacher at Lethbridge Collegiate in Lethbridge, Alberta, and leader of several international trips. "It's amazing what we all get out of the trips," agrees Richard Hechter of The Collegiate at the University of Winnipeg in Winnipeg, Manitoba. His yearly Ride and Slide trip to the amusement park at the West Edmonton Mall allows students to study the laws of physics in action in a truly memorable fashion.

Field trips can also demonstrate that the real world isn't always as simple and straightforward as the information in a textbook.

Marlene Walther of Westgate Collegiate Institute in Thunder Bay, Ontario, explains: "I've seen students really grappling with the morality of the 'black market' in Russia, where the government is not always the 'good guy'. They need real-life experiences to be able to make judgments of what's not immediately evident."

Barry Lindahl of West Vancouver Secondary School in West Vancouver, British Columbia, says his students had similar Russian experiences. "Many parents were concerned that their kids would find the political system fascinating and worth emulating. But one look at a Kalashnikov-toting soldier and the evident poverty of the country and not only were the students very happy to return home, they were really easy to keep track of on the trip!"

Exemplary teachers know a successful field trip doesn't just happen. Several elements are vital, whether the trip is around the block or around the world.

Context: The trip must relate in some way to what the students are learning at school. Several curriculum objectives can be integrated into one trip; for example, a science trip to collect samples from a local stream can include math and language skills through measurements and reporting.

Planning: Two full years of planning are often necessary for a foreign trip, says Lindahl. "With meetings once or twice a week," adds Major. There's a lot to discuss, including itineraries, equipment, research materials, safety concerns and transportation. In addition, advance research projects prepare students for the intensive learning of the trip. The planning stage can act as a selection phase as well, as students who participate in the planning and maintain good grades earn a place on the trip.

Funding: Even though tour companies can help with much of the planning, few student groups can travel without extensive fund raising. A school trip fund raising project brings great incentive to the development of business planning, organization and teamwork skills, comments Claire Frankel-Salama, a French and Spanish teacher at Bishops College in St. John's, Newfoundland and Labrador.

Follow-up: No field trip is really complete without at least one get-together afterwards, says Major. Whether it's that trip to the local stream or the latest tour of Europe, a school newspaper article or essay from each of the participants helps them assimilate what they've learned.

Though field trips are not — despite a common misconception — paid holidays for teachers, almost any teacher would tell you they are well worth the planning, the daunting responsibility and the worry. "So why do I do it? Why do any teachers do these things?" asks Walther. "Some of my most memorable times with students have been on field trips. I know they will gain a learning experience far beyond what can ever be offered in the classroom. To be able to share those world experiences with young people is so rewarding to me and I am always so pleased to give them those opportunities."

Northern Teaching: The Land and the Classroom



Canada's newest territory, Nunavut, faces great challenges as it works to create a government, assign responsibilities to new departments and agencies and begin governing the thousands of people living within its huge boundaries. One of the government's numerous tasks is education.

In 1996, 56 percent of Nunavut's population was younger than 25 years of age, and close to one third of residents age 15 and older had less than a Grade 9 education. A requirement of the Nunavut Land Claims Agreement, which set up the territory, is that Nunavut's public service will eventually be 85 percent Inuit — reflecting the proportion of the territory's population that is Inuit.



"I had to find and build some kind of balance between their learning what they need on the land and what they need in the classroom to function successfully in their rapidly changing world."



Carmie MacLean

Carmie MacLean's experience at Tusarvik School in Repulse Bay is a good example of the kinds of challenges and changes confronting education in Nunavut.

When Maclean arrived in Repulse Bay after nearly three decades of teaching in southern Canada, she quickly realized that "many of my standard expectations and my familiar teaching strategies had to go straight out the window." This was because of the profound differences between the culture of the northern nomadic people of Nunavut — still within two generations of living off the land — and the technological and urbanized culture of the South, where she had developed those teaching strategies.

MacLean discovered that the children's and community's understanding of what teaching was — how it was done and what it was for — were very different from hers. To be able to teach in Repulse Bay, "I had to find and build some kind of balance between the culture of the North and the encroaching culture of the South, between their learning what they need on the land and what they need in the classroom to function successfully in their rapidly changing world."

She identified and tackled several challenges.

Since school is seen as only one of several ways to learn, what would be called "chronic absenteeism" in the South was one problem, though many of the parents of Repulse Bay didn't see it that way. Learning to live "on the land" and the annual springtime custom of extended visits to distant relatives took children away from school for long periods of time. Staying up late and then sleeping late also kept students away from school. "It's difficult to teach the sequential development of skills and knowledge when the population of the class changes from day to day," remarks MacLean.

Seeing absenteeism as a critical barrier to her students' learning, MacLean began by rewarding perfect attendance with Muffin Saturdays. Children with a month's perfect attendance were invited to her home to bake blueberry muffins and enjoy them with juice, milk and fruit.

A Perfect Attendance Wall in the school foyer was next. Any child in the school with a month of perfect attendance had their picture displayed on the wall. (Interestingly, the Perfect Attendance Wall also provided students with a lesson in ownership and respect for property. Personal photos are rare in the community and initially the pictures disappeared from the wall as soon as they were put up. MacLean recruited parents and fellow teachers in the search and recovered all but

one photo. Its place was filled with a simple note about the problems of stealing.)

Another challenge Maclean faced was that English — the language of instruction beginning in Grade 4 — is a second language for all students and often not spoken at home. As a result, the students were very far behind national or international standards for their grade.

Maclean felt that improved English skills were crucial to her students' overall educational success. She set out to improve these skills through a variety of approaches, one being a daily letter to the class written on the blackboard. These letters introduced new topics, commented on moral issues or discipline problems and introduced new vocabulary. They also served as a springboard to further oral and written language development.

The letters also connected family and community events to the classroom, revealing the links between school life and daily life. The students looked forward to each letter and began each day with reading practice that was personal, applicable and relevant. In addition, MacLean encouraged students to practise their writing skills in daily journal entries. Transferring the familiar communication style of oral conversation into writing, and writing practice, she rewarded each journal entry with a personal reply.

As well, the students were constantly exposed to the idea that good academic performance naturally brings its own rewards. Students with the required literacy skills earned the privilege of an e-mail account and use of the school digital camera for classroom displays. In this way, students not only improved their English skills, they learned the use of modern technology in an interesting and practical application. E-mail and the Internet gave these isolated children much needed contact with the outside world.

This connection between school life and daily life, and the related idea of planning, anticipating and working towards what one might be doing 5, 10 or 15 years down the road was another seemingly unfamiliar notion for many of MacLean's students.

As an example, she relates that in her first week at Tusarvik School, she asked her students to write a short paragraph on what they'd like to be when they grew up. "It was difficult for them to understand the assignment, as most had not given this idea very much, if any, thought."

This explained another teaching challenge: homework. The idea of taking books home to do work was a poorly developed habit. MacLean began by sending a note home at lunchtime to parents of children who hadn't completed their homework. (She also sent notes home praising a student's success at school.) The note was to be signed and sent back to school the same day. She found that a follow-up phone call regarding homework was sometimes necessary and parents usually expressed a desire to help in this regard.

This simple initiative (one that's commonly used in the South) was quite successful in changing attitudes about homework. Students weren't used to taking such immediate responsibility for their actions or to assuming responsibility for the completion of a task. Their parents were not accustomed to such immediate feedback about their children's actions. Most importantly, though, this measure presented and reinforced the idea that academic learning can and should be a lifelong habit.



MacLean found much of the standard curriculum was not suited to her northern students; for example, many had never seen a cow or a dandelion. She spent hours doing research, developing lesson plans and resources more relevant for her students and their educational situation and needs.

To coincide with the community fishing derby, for example, her students made paper fish, wrote stories about how they caught their fish, took digital photos of each other holding up their “catch” and later presented the project to parents and others in the community. She encouraged her students to teach her what they knew as she taught them. Field trips to examine geographical and geological features became lessons in snowshoeing or fire building as well.

The newer learning tools — computers, the Internet, and digital and video cameras — are invaluable to northern students, MacLean finds. Though modern technology isn’t seen as a frill any more, it’s still expensive, especially in the North. But MacLean argues that the expense is worthwhile for her students, because it gives them much needed exposure to the outside world and culture. “Even if a student never leaves Repulse Bay,” she says, “e-mail and the Internet will keep them connected to the rest of the world.”

In her time teaching in Repulse Bay, MacLean learned that broadening her students’ horizons enough to contemplate their future opportunities was equally, if not more, important than the academic material she was teaching. “Helping them see past Repulse Bay to the outside world actually made teaching the academic

material easier,” she reports. “When they saw that learning to read or to speak English had a purpose beyond school, learning began to make sense to them.”

This is the task of all education — showing children their future and then helping them get ready for it. Nunavut is preparing its students for the future, readying them to live, work and succeed in the technological global economy, while at the same time preserving and maintaining their own cultural identity.

“The opportunities are so great right now in Nunavut for Inuit with education; the world is their oyster,” MacLean says. “What my students need most of all is to see that they have options and then use those options to make choices about their futures.”

Carmie MacLean
Tusarvik School
Repulse Bay, Nunavut

Rather than picturing herself as deliverer of a syllabus, Carmie MacLean sees herself as a teacher of kids, the country’s greatest, and most valuable, natural resource. To her, the subject matter is of little use if it’s not accompanied by a spirit of dedication, a desire to meet each student where they are, and the work ethic to do whatever it takes to awaken in each child — as they awaken each day — a desire to come to school.



Opportunities and Choices for Special Needs Students



For better or worse, people feel the need to name things. It's how we find our place in the welter of people and objects that surround us.

It's how we designate others' place in the world, too.

We find and label our similarities and differences according to race, religion, sex and a host of other characteristics. In the past, these labels were used to separate and discriminate. Today, faced with a multicultural mix of backgrounds, beliefs and abilities in our workplaces and classrooms, we use the same labels to help identify, understand and celebrate differences. "There's no point trying to be invisible," remarks Clarence Button of O'Donel High School in Mount Pearl, Newfoundland and Labrador.

"We'll label each other regardless."



Labels say that the student needs something different from the regular curriculum. This ultimately provides, rather than limits, opportunities.

Kathy Forsythe-Lantz



But it's hardly surprising that people still feel ambivalent about dividing and designating students according to their age and ability. Surely labels do more harm than good, some teachers argue, by focussing on what separates students rather than on the thirst for learning that unites them.

Others, such as Kathy Forsythe-Lantz, teacher of special needs students in the Life Skills and School to Work programs at Waterloo-Oxford District Secondary School in Baden, Ontario, see it differently. It's unrealistic to think that we can dispose of labels, she comments. Without labels there would be no funding. While using a label does categorize a student's ability, it also communicates to the community and educational system that a special program needs to be in place. The reality is that not all students can be taught the same way, in the same program. Using labels classifies students according to the resources they need. Without labels, the provincial government would be unable and unwilling to provide the student with the necessary funding to be in a specialized program. Labels in the educational system look at a student's individual needs, and help teachers set reasonable expectations and design a suitable program. And "special needs is the gentlest and broadest of all the labels

I've seen in my teaching career," she says. Labels say that the student needs something different from the regular curriculum. This ultimately provides, rather than limits, opportunities.

Giving her students' opportunities and choices — despite the fact that labels are a means of achieving this — is what motivates Forsythe-Lantz. She's seen the need for choices for a long time.

"When I was 16 years old, I visited a friend whose father worked at a home for the retarded, as people with mental disabilities were then labelled. I was shocked by what I saw." Forsythe-Lantz has been "doing something about it" ever since. She first took a part-time job at that home. "The children weren't mistreated," she explains. "I just felt they were capable of and needed so much more than they were allowed." Fresh from teacher's college in 1967, she began teaching at one of the first schools for the handicapped in Ontario (the McQuarrie Memorial School for the Trainable Retarded), and she has been working with special needs students ever since.

To Integrate or Not to Integrate?

Educational theory changes constantly. As knowledge about how children learn evolves, knowledge of the best way to teach also evolves. Nowhere is this more evident than in the area of classroom integration.

"Throughout my teaching career, I've seen the pendulum swing from one extreme to the other, from total segregation to total integration," comments Carmie MacLean of Tusarvik School in Repulse Bay, Nunavut.

At one time, complete segregation of students of different abilities was the norm. It was believed that the different academic curricula and training, tailored to the needs and abilities of the various groups, was best administered separately, often in separate facilities.

"I began my teaching career at just such a school," explains Kathy Forsythe-Lantz of Waterloo-Oxford District Secondary School in Baden, Ontario, "and almost immediately started pushing for changes."

As recognition of the importance of independence, self-esteem and social acceptance in the learning process developed, classroom integration was seen as a better way to accommodate and help special needs children.

Now, it's changing again.

"I'm 100 percent for integration, but *only* when there's a benefit to the students," says Forsythe-Lantz. In many cases, classroom integration only increases a child's sense of isolation by highlighting how different he or she is, academically or physically, from other children. Complete integration works well in kindergarten, a choir or minimally academic music program and tech courses (within limits), she says.

"There's no one right answer," agrees MacLean. "Many children benefit from full inclusion; others don't." Where a child will go to school should be decided case by case, she says. "On the whole, I encourage integration," she continues. "It's helpful for children to understand and accept that we've all got something different about ourselves."

Both teachers agree that the best solution is a system with educational options ranging from complete segregation and complete integration, so that educators, parents and students can choose the best solution for their individual situation.

Compassionate, passionate and determined to advocate for her students ("my guys," as she calls them), Forsythe-Lantz has seen many changes in special needs education in the past 35 years. To begin with, the labels have changed. Her students aren't called trainable retarded or developmentally delayed any more. (Though these labels enabled the educational system to recognize the needs of these students, she points out. They began the process of recognizing capabilities and offering opportunities.)

On the other hand, Forsythe-Lantz says that her high-functioning (another label) students are quite sensitive to labels and insist that their program is called the School to Work program. They don't want to be known as "special" or "different," words that have only limited their options and choices by keeping them separate and frustrated for their entire school career, even though without labels there would be no funding for their program. (For more on labels, see page 36.)

School to Work and Beyond

The day begins early for Forsythe-Lantz's School to Work students. After checking in at school at 8 a.m., students get a ride from an educational assistant to their work placement for a morning or full day of on-the-job training. (Waterloo-Oxford is a rural school and there is no public transportation for the students, Forsythe Lantz explains. If they were close to public transportation, they would be taught how to use it.) Other days, they gather with fellow Life Skills students to learn functional language and literacy skills, math



or career skills with the help of an educational assistant. No matter what the schedule holds, every day is carefully planned to teach and develop academic, social, personal and career skills.

"The program's goal is to develop productive, contributing individuals who are integrated into the community and society as much as possible," says Forsythe-Lantz. "They have visions and dreams for their lives, just like the rest of us. We help them achieve those dreams."

Since each student has different exceptionalities and abilities, every educational plan, work placement and eventual outcome is different, she explains. Some students, those with minor to moderate disabilities, are included in regular classes in addition to the School to Work program and, upon leaving school, achieve full-time employment and live independently with minimal support. Others, with more severe disabilities, may hold volunteer positions in the community and live independently with more support from a community agency. Regardless of the students' abilities, Forsythe-Lantz strives to ensure that their time with her prepares them for their future.

Job training is an essential part of the program. Over the years, Forsythe-Lantz has developed an extensive network of businesses that employ her students. This network includes senior citizens' homes, pre-school daycare centres, auto body shops, factories, landscaping firms, shoe stores and doughnut shops. The wide variety of potential jobs that these businesses offer allows her to match each student to the best job

placement for his or her interests and abilities. She has also established financial support for the employers and students by researching and applying for a variety of grants and youth employment programs.

Developing relationships, leisure and recreation activities is just as important as a job for achieving a happy and successful life, Forsythe-Lantz points out. For all students, emotional growth should be as important as academic growth.

So in addition to developing job skills, School to Work and Life Skills students learn the personal and social skills they need to be "good people," to build and maintain relationships and keep fit and active in the community. Physical activity is especially important, Forsythe-Lantz comments, as recent studies have shown that special needs adults who maintain regular participation in some form of sports stay healthier and independent longer than those who do not. This aspect of the program includes a wide range of activities from learning to wash their hair, to planting and caring for the Eco-Garden at the school, to learning tolerance and acceptance of others.

Kathy Forsythe-Lantz
Waterloo-Oxford District Secondary School
Baden, Ontario

Kathy Forsythe-Lantz is passionate about respect, both for people and for the environment. She brings this passion to her teaching of special needs students at Waterloo-Oxford District Secondary School and her support of environmental issues. Believing that we learn 10 percent of what we read, 15 percent of what we hear, and 80 percent of what we experience, she creates learning experiences for Waterloo-Oxford students and the wider community that teach life skills, tolerance, understanding and, of course, respect.



Resources

Creating and maintaining an atmosphere of possibilities and choices for special needs students often requires more resources than would doing something similar for students in regular academic programs. But, "you spend it now or you spend it later on social services," says Forsythe-Lantz. "I have no problem being that direct about it." It's an investment in everyone's future, she argues.

Special needs programs require more in the way of resources than just money and technology, too. They need time and extra personnel. Since each of the students in Forsythe-Lantz's classes has a different set of challenges and a unique personality, each needs a personalized education plan, something that takes time to develop and monitor (see "A Path to Success," right). In addition, educational assistants are essential to implement these plans, to escort students to work placements or give them individual tutoring.

While Forsythe-Lantz admits the need for labels, she believes that in all the ways that really matter we're all the same. Everyone, regardless of academic ability or label, has the same needs and desires. We all want to be accepted, to be helpful and productive, to have friends and family around us. And while we can't all master advanced calculus, she says, we can all learn to wear one label: friend.

A Path to Success

Everyone needs a vision, a "north star" for their life, explains Kathy Forsythe-Lantz of Waterloo-Oxford District Secondary School in Baden, Ontario. Her Life Skills and School to Work students just need a little help finding and following it.

"Most often, we use what's called a Pathing Process to map out a student's dreams and goals: how they can get there and who should help them," she says.

There are five criteria necessary to create a plan for a student's future.

1. You need a group of individuals (teachers, educational assistants, parents, siblings, close relatives and community representatives, when appropriate) committed to supporting the student when school is completed and to helping the student brainstorm a desirable future.
2. You need a facilitator to assist the group throughout the planning process (a series of meetings) and to keep the group focussed.
3. You need a recorder to draw graphics, words and images on a large chart to summarize the path for the student.
4. You must make sure the student's wishes, thoughts and feelings are the *primary* focus.
5. You should schedule follow-up meetings to review and revise the plan.

The Pathing Process starts with a student's dreams. Forsythe-Lantz and other members of the group encourage the student to "shoot for the stars," asking, "Where do you want to live, work and play when you are finished school?" The group then goes back to where the student is now and helps him or her set goals so the student can reach those dreams in a realistic manner. (For example, one student wanted to coach the Toronto Maple Leafs. He was encouraged to start his coaching career by helping out with minor hockey.)

Then the group looks at next steps: Who will do it? By what date? Everyone in the group looks closely at what they can do to help the student reach his or her goal. The student is encouraged to take responsibility for some of the tasks as well.

Next the group looks at blocks or barriers that hinder reaching the goal. This may be a lack of confidence or poor work habits on the student's part, or a lack of support and resources from the support team. The group looks at ways to overcome these barriers to success.

The next step in the process involves finding ways for the group to stay motivated and focussed on the goals, to make the group stronger. Members are asked to list what they do to maintain energy, to stay relaxed and to keep motivated.

Everyone on the team needs to be committed to working together to achieve the goals. Everyone has strengths and connections they can bring to the task. With goals set, and steps and deadlines mapped out, the group looks at who else should join the team.

At the end of the meeting, everyone should have a task and a set date for the task to be completed.

It is very important that a date for a follow-up meeting also be set, since this is an ongoing process.

Social Skills 101: Another Course in the Curriculum?

Children learn a lot more at school than how to spell Saskatchewan and solve a quadratic equation. They also learn to interact with people outside their family. They learn these skills — what are called social skills — the same way they learn everything else, by trial and error, with some guidance and some correction.

Social skills are much like air. We tend to take them for granted and only notice when they're absent. A person's lack of good manners is a lot more obvious than their lack of knowledge, and we remember someone's friendly and polite behaviour a lot longer than how many degrees he or she holds.

If that's the case, which is more important to learn, academics or social skills? Carmie MacLean of Tusarvik School in Repulse Bay, Nunavut, sees the two as being inexorably intertwined. Academics make the wider world available to the students of this isolated village. "Once they have a grasp of the importance of learning and the options it makes available to them," she explains, "they also understand that different people have different ways of behaving." Once they begin making choices for themselves, development of the necessary social skills will inevitably follow.

Social skills give you the ability to blend in, MacLean says, and give you a sense of belonging. It's not only the specifics of how to act and speak, it's an understanding and awareness of community standards and expectations. Cultural differences determine a lot of our social behaviour (for example, the size of our personal space and therefore how close we stand to other people). Not being aware of these subtleties at best marks you as rude or insensitive; at worst, it can lead to being ostracized.

Kathy Forstye-Lantz from Waterloo-Oxford and District Secondary School in Baden, Ontario, has a different view. She believes that for her students in the Life Skills and School to Work programs, social skills are just as important as academics. A special needs student may never master algebra, but can definitely learn how to behave in a workplace, how to make and keep friends and how to interact with neighbours and the community.

Forsythe-Lantz suggests that social skills give you the ability to protect yourself and navigate an unfamiliar situation. For everyone, not just special needs students, life is a series of new experiences, new encounters, new interactions and new relationships. Social skills, which she sees as the ability to get what you need while giving others what they need, help us steer our way through all these new situations safely.

Both teachers agree that social skills include (and in fact are built on) self-confidence and emotional strength. They depend on both an understanding of what it is to be a good person and a belief that you are a good person. It's easier to like someone who likes themselves. "You're not worth much to anyone if you're not a good person," comments Susan Quinn of Holy Heart of Mary Regional High School in St. John's, Newfoundland and Labrador.

There is no course entitled Social Skills 101. How can schools teach these much needed skills to young people? Classroom and schoolyard interactions among students will take care of much of this learning. But children can be very cruel to each other and some of what kids learn in the playground may need to be undone in the classroom. School and classroom codes of behaviour are becoming more common as a way to make acceptable expectations and standards explicit.

Most people have met at least one doctor or lawyer with the social skills of a badly behaved three-year-old. Young people whose academic ability outstrips their emotional development often have a great deal of trouble learning proper social behaviour. Their intellectual peers shun them for their age-appropriate yet immature behaviours while those of their age group shun them for their intellectual abilities. Unfortunately, some children solve this dilemma by hiding or neglecting their intellectual potential.

If social skills are largely learned through guided experience, then providing lots of opportunities for social interaction will help students learn how to "play nice" and give them the needed self-confidence and emotional strength. Quinn and Forsythe-Lantz both endorse music therapy and mentoring as an excellent way to teach compassion, patience and understanding to musically gifted and bright students while giving special needs students extra tutoring time, social interaction and emotional boosts. The Special Olympics, peer tutoring and job training ("with lots of monitoring and feedback," cautions Forsythe-Lantz,) also provide useful social experience and training in one of the most important skills for everyone.

Meeting the Needs of Gifted Students



Who are gifted students and what sort of schooling should they get? Both of these questions are troubling and troublesome.

In contrast to their fellow Prime Minister's

Award recipients who work with special needs students, the teachers who work most

often with gifted students consider the use

of labels to distinguish one group

from another to be destructive.



*Is it enough to say they are gifted because they are succeeding?
“The problem with that is that we get periodic
reminders that we have missed someone”.*

—Peter Gardiner

Susan Quinn



Clarence Button



Peter Gardiner



Labels set kids apart from their peers in ways that can have very negative effects, says Susan Quinn, a music teacher at Holy Heart of Mary Regional High School in St. John's, Newfoundland and Labrador. "I think teachers must take responsibility for the social development of their students," she explains. Separating them from others on the basis of special skills they have in particular areas is not always effective.

Students who are especially gifted in some areas often get short shrift in others, adds Clarence Button, who teaches sciences and technology at O'Donel High School in Mount Pearl, Newfoundland and Labrador. "There is a tendency to assume that because students are acing math and history that everything else is progressing as well. In contrast, their literacy skills or appreciation of the liberal arts and humanities may be severely lacking. They may dislike these topics simply because they feel incompetent in comparison with their strong subjects."

Finally, labelling students cuts them off from their peers. "The classic example is the poor child in Grade 2 who has to sit alone doing 'gifted' things while all her classmates are playing Happy Scissors," says Peter Gardiner, who teaches

biology and psychology at St. Michaels University School in Victoria, British Columbia.

In addition, people use the term *gifted* without any real understanding of what it means. "That is what troubles me most," says Gardiner. "We all feel we can pick these students out but we couldn't explain what criteria we are using to do so."

Is it enough to say they are gifted because they are succeeding? "The problem with that," explains Gardiner, "is that we get periodic reminders that we have missed someone. Every once in a while a student who nobody particularly noticed as gifted while they were in school goes on to do great things."

Teachers have a responsibility to uncover students' special abilities, according to Button. "If you can find the area where a student, any student, can excel, then you have the basis to build bridges to other things. The methods are the same!"

And the basis to overcome stereotypes, adds Quinn. "When I tour Europe with my music students, I am always impressed with how casually the students there will go from the choir loft to the rugby field to the chemistry lab. Here in

IB and AP:

Two Opportunities for Advancement

Two programs — International Baccalaureate (IB) and Advanced Placement (AP) — dominate discussions of special qualifications for university-bound students.

Peter Gardiner, of St. Michaels University School in Victoria, British Columbia, who describes himself as an advocate for AP, says that the most important point that parents and students should think about when evaluating the two is purpose. "Although they are often compared, they were created with very different purposes," he explains.

The International Baccalaureate program began as a university-entry qualification for the international community. The idea was that students seeking to study at universities in countries other than their own, or students whose parents were living outside their own country, such as members of the diplomatic corps, could follow a program that would be accepted by universities worldwide. It has since evolved into something that is closer to the classic idea of a liberal curriculum, producing well-rounded students able to function in a multicultural and globalized world.

The International Baccalaureate Organization in Switzerland says it aims at more than academic performance. That the program was created with the support of grants from UNESCO, the Twentieth Century Fund, the Ford Foundation and similar groups shows the ideals behind it.

Advanced Placement is a series of courses students can take to get university credits while still in high school. It is run by the Educational Testing Service, which also delivers the widely recognized SAT (Scholastic Aptitude Test), TOEFL (Test of English as a Foreign Language) and GMAT (Graduate Management Admission Test) university admission exams.

The strengths of AP are its widespread recognition in North America. Educational Testing Service is a well-known body, respected at universities. Gardiner, who has taught both IB and AP, is particularly impressed by the validity and reliability of the methods the service uses in marking AP exams.

Gardiner says that anyone considering an IB school should ensure that the wider aspect of the program really is part of that particular school's application. "Ask how many of their students are full diploma students," he advises. "It really isn't the same thing if people are just taking a few IB courses."

For more information on these programs, go to <http://www.ibo.org/> and <http://apcentral.collegeboard.com/>.

North America we have stereotypes that make kids uncomfortable doing that."

It was for this reason that Quinn was particularly grateful to see the hockey team show up at choir practice one day. It happened a few years ago when Holy Heart went from being a girls school to being co-educational. "I needed to get boys in the choir and I told the girls to go out and find boys who would be comfortable standing up and singing with them. They came back with the hockey team."

For Quinn, who teaches some extraordinarily talented musicians, teaching "jocks" to sing was deeply rewarding. Equally important, it was rewarding for her star students as well. "I have a chamber choir that competes at a very high level but I insist that those students perform with the larger concert choir as well. The concert choir is more like the larger society, and the satisfaction that comes when a group like that comes together to sing a simple but beautiful song can't be had any other way."

Finding an area a student can excel in and then showing him or her that this creates opportunities elsewhere is an approach that can be applied to teaching any class, agrees Button. Ultimately, however, he believes, "some kids think differently and that difference allows them to excel. I am very motivated by statistics that show that we haven't been as good as we should be at identifying and helping these kids in Canada."



Teachers can figure out how to use the resources they have effectively, says Button. "People get upset, and rightfully so, when they see 7 gifted kids in Advanced Placement physics and 30 others crowded into a regular chemistry lab." There are ways, such as schools combining resources, to get around these things, he says. Ultimately, it is in everyone's interest to do so. "We shouldn't feel threatened by extraordinary performers," he explains. Instead, it is the mark of a smart society that we provide them with opportunities to excel (see "IB and AP: Two Opportunities for Advancement," previous page).

"Ultimately, any discussion of giftedness comes around to the thorny issue of privilege," says Gardiner. This comes with the territory for Gardiner, since he teaches at a school where a certain level of academic performance and the ability to pay the tuition are required. "I get some flack because of where I teach and I can live with that. But the inescapable lesson you learn in a place like this is that money doesn't necessarily equal a caring upbringing."

At the Top of the Class or Outside of It?

Whether it is a reflection of privilege or simply an effective way to meet gifted students needs, the question of whether or not segregated classes should be created for these students is not going to go away. There are an increasing number of private schools that claim to offer students an advantage. At the same time, supporters of public schools argue that the public system should provide for the special needs of

gifted students. Many people argue that special programs, such as the International Baccalaureate (IB), Advanced Placement (AP) and even late French immersion, offer extra challenges and focussed attention so students can perform at a higher level.

And these discussions are not just about the pluses and minuses of different teaching philosophies. There is a tangible payoff for students because many universities give advanced standing to students who have completed IB or AP courses. Many parents also believe that a balanced résumé, with both academic and artistic aspects, as well as volunteer experience and second-language abilities, is favoured by the admission departments of many universities, particularly elite ones.

The increasing pressure to get admitted to university programs with more stringent standards will probably continue to create demand for special options for strong students, says Quinn. The various options fall under two broad approaches, she explains. One is to segregate on the basis of subjects. Students who are particularly strong in chemistry are placed in an advanced class. The other approach is to create a special program in which the stronger students take all their classes together.

Susan Quinn

**Holy Heart of Mary Regional High School
St. John's, Newfoundland and Labrador**

Susan Quinn's strongest belief about teaching is that students' capacity to learn depends on their ability to believe in themselves. Students may still appear competent enough without this self-confidence, but they won't be able to work to their full potential. A teacher's primary responsibility is to nurture students along so that they will believe in themselves.



"I have some reservations about the effects of segregation," says Quinn. "My instinct is to try and balance it by creating some activities in which all the kids work together and others where the individual academic needs of the student are addressed."

Teachers are responsible for the social development of students and not just academics, continues Quinn. "With my concert choir, I have as broad a group of students as possible and there are clear benefits for all students from working together," she explains.

Special programs have good and bad effects, says Richard Hechter of The Collegiate at the University of Winnipeg. "The school where I teach was created as a feeder for the university and there is no doubt that students come here with the expectation that they will be well prepared for university. But there are some kinds of competitiveness and other pressures that aren't helpful."

"I have to remind my students that while life is competitive, everything we do is not," adds Peter Gardiner. It is extremely valuable for all students to be able to do some things that aren't going to count," in the sense that they become part of their qualifications. "You should be able to have learning experiences that are personal and have only intrinsic value."

There are two different kinds of reasons for undertaking any program, he says. "This program may be of help to me in getting into university or it may help

me become a better person but not produce some objective qualification. In assessing anything, whether it is an advanced program or whether to play a particular sport or do volunteer work, both considerations should come into play."

Learning Environments for Gifted Students

Regardless of how the issue of special programs is resolved, what should a teacher do to help the gifted students in his or her classes today? They should do many of the same things they would do for any student. "I wouldn't change my teaching style one bit if I were not teaching gifted students," says Gardiner. The issues he emphasizes to his "high flyers" — such as intellectual honesty, challenging yourself and the importance of "training" your intellect — are just as relevant in any classroom. "The thing that I would change would be the level of the content."

For Button, the key issue is to determine where a student's giftedness lies. "All students have special abilities," he explains, and, generally, students tend to be enthusiastic about things that require those abilities. "No matter what it is, this interest will eventually tie into broader concerns," says Button. "A student of mine was fascinated with carpentry," he explains. "I knew that pursuing that interest would eventually lead him to mathematical concepts, and that became the opening I used."



Gardiner agrees about starting with students' strengths. "I don't think there is much point in forcing students to do things they really aren't interested in," adds Gardiner. In extreme cases, when a student isn't interested in education at all, he believes there is some merit in just letting them go. "Having grown up in the British education system, I can tell you that one of the most impressive things about the North American system is that it allows people to go back and redo things in which they didn't see value the first time around."

What really distinguishes the students who typically get called "gifted" is not that they have special interests but what they can do when given their head in an area that really challenges and excites them. Leaving aside all labels," says Button, "there are some students who just gobble up the concepts, making intuitive leaps that get them past challenges that others struggle with. Some people have this sort of ability in just one area, some have it in several areas, and some kids, amazingly, are just really good at everything."

And that is where the more challenging content comes in, says Gardiner. "What I object to is the striving for mediocrity that is typical of too many programs," he explains. All students, including star performers, deserve a school environment that allows those who want to learn to learn — to challenge their intellectual capacity.

But these students are simultaneously under and over-estimated, adds Gardiner. Even the ones who are good

Writing Densely to Communicate Clearly

Anything that can legitimately be called a skill can be explained clearly, says Peter Gardiner of St. Michaels University School in Victoria, British Columbia. "I get very suspicious of vague-sounding courses such as 'critical thinking.' Teaching critical thinking in isolation sounds to me like teaching people the theory of how to ride a bicycle without them ever getting on a bicycle."

Explaining things clearly is for Gardiner perhaps the most important skill he can teach his students, and one of the ways he teaches it is with a technique he calls dense writing.

"It starts very simply. I ask my students to make sure every sentence in an answer or essay scores a point," he explains. "I point at a sentence and ask, 'What does that sentence tell me that I don't already know?' If it doesn't add anything new, then it doesn't get a point."

This simple-sounding approach has a ripple effect that changes the way students approach problems and how they organize their thoughts. "Students write fluff because they have been allowed to write fluff," says Gardiner. "A student who begins an answer by restating the question is showing you that they don't really know how to answer the question. And they don't know what defines an answer."

When students take up dense writing, they typically notice two benefits. They don't have to write as much, because they aren't writing all the fluff and they score better on exams. The second benefit comes about because dense writing teaches them what examiners are really looking for: content and support for that content either by example or elaboration.

Clarence Button O'Donel High School Mount Pearl, Newfoundland and Labrador

Clarence Button is a driven man. What drives him is that not enough Canadian children are pursuing careers in the sciences because the way they are taught science in high school is boring. He has made it his mission to do something about this.



at everything will ultimately reach a point where they will struggle someday. "Because they have this intuitive ability, they have often not developed good study skills," he explains. "The classic case is the parent who calls to complain that their child has always done very well in school, so why is he doing so poorly now that he is in grade X. The answer is that he or she has been coasting along on intuitive abilities for years."

This is particularly important in skills-based learning, remarks Quinn. "If you have the date for the Battle of Hastings or the fall of Constantinople wrong, all you need to do is correct that one thing," she explains. "That isn't necessarily an easy thing to do but it is a lot easier than if you have been doing mathematics wrong and you pretty much have to reprogram yourself."

The skills are crucial because they become the tools kids can use to teach themselves, adds Quinn. People regularly learn how to sing or play instruments without knowing how to read music, she points out. "I have kids who have been singing in choirs for years without any idea of how to read music. But on the basis of their singing skill I can teach them to read music, and everybody in my choirs does learn."

For Button, skills development comes in the context of challenging, multidisciplinary projects. In recent years, he has been leading student groups taking part in national and international robotics and other technology competitions. "This creates a culture something like a country garden, where every plant has its

own individual requirements for growth," he explains. Development of the robot is the defined goal but there are, in fact, a whole array of different tasks required to achieve it. Funds need to be raised, the project needs to be administered and publicized, all sorts of computer technology needs to be learned.

Competitions are valuable because they are such a major intellectual and social challenge. "It isn't just adults who underestimate gifted students; they do it to themselves," he explains. "Robots really trigger results — when something they do gets their colleagues, teachers, parents and other students excited, they will find it exciting, too."

One of the key skills that students need to learn is how to explain things. If you ask students "What is a car?" they will often start with factoids and minutiae they have learned, says Gardiner. "They rarely start with something general such as 'a car is a mode of transportation.' You have to teach them to start with the general and move to the particular."

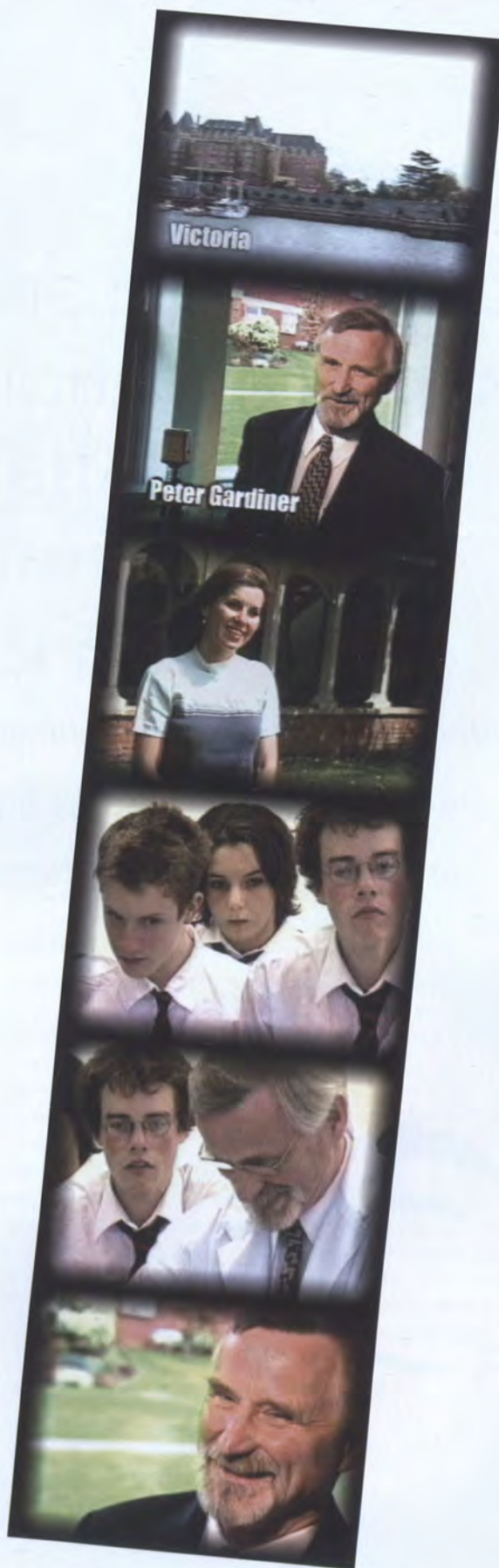
"I tell them to imagine they are explaining something to an intelligent but uninformed person," he says. Gardiner has developed this basic skill of clear expression to the point that it becomes a valuable tool for students to teach themselves and others (see "Writing Densely to Communicate Clearly," previous page).

The question then becomes how far can they go? Gardiner encourages his students to think of what they are doing in school as intellectual training. "When you train, not every performance is a competition," he explains. He encourages his students to think of regular performances as a way to evaluate themselves and to strengthen skills.

"We have a little mountain behind the school. It's called Mount Tolmie. Sometimes a student will come to me and say, some of this stuff is really tough and would I be better off in a regular course? My question in response is, "Which would you find more rewarding, to go to the top of Mount Tolmie or a quarter of the way up Everest?' In other words, why would you expect to score 100 percent on this material? This is tough stuff."

Peter Gardiner
St. Michaels University School
Victoria, British Columbia

Peter Gardiner never reads previous academic reports on students coming into his class. His courses have open enrolment and he takes students as they come, whether they are struggling, high achievers or moving along nicely in the middle. Regardless, they all get a solid basis in work and study habits and are then challenged to work at a higher level than they thought they were capable of.



Experience and Experimentation: The “Aha!” Moments of Science



Mathematics, science and technology teachers have been contributing to Exemplary Practices since the Prime Minister's Awards program began in 1993. As a result, the discussion is well developed and each year's group contributes new ideas to well-established themes.

The interesting new twist that the 2000–2001 winners brought was the suggestion that in addition to preparing young Canadians for careers in an increasingly technological world, mathematics, science and technology education helps with personal development as well.



“There is no reason why mathematics, science or technology class can’t be a life-changing experience every bit as profound as reading a novel such as *The Catcher in the Rye* or *The Color Purple*.”

—Richard Hechter

David Pilmer



Richard Hechter



Wendy Van Haastregt



There is no reason why mathematics, science or technology class can’t be a life-changing experience every bit as profound as reading a novel such as *The Catcher in the Rye* or *The Color Purple*, says Richard Hechter of The Collegiate at the University of Winnipeg. Students often say that they take science courses to learn how the world works, he says. “What they often don’t get from their science teachers is the sense of wonder and mystery that goes with science — that science often gives us answers that we are not prepared for and that it often shows us just how little we really know.”

For Hechter, who teaches the sciences to university-bound students, one of the best ways to restore the sense of wonder to science is to integrate it with other subject matter. He is constantly on the prowl for interesting phenomena in the world of art, culture and history that he can include in his physics classes. “When you can show students that a famous painter has to have painted a painting of the night sky on a particular day, in a particular place, because that is the only time in history that anyone had that particular view of it, you open their eyes to the wonder of it all,” he explains (see “Building Bridges,” right).

Building Bridges

“I like to approach a teacher in another subject such as English or history and ask, ‘Can you teach my class something about the non-scientific aspects of my curriculum?’” says Richard Hechter of The Collegiate at the University of Winnipeg. “If they can, I can always find in return some scientific angle to teach about a particular period in history or literature.”

Hechter, a voracious reader, was first inspired to do this by an interesting study some astronomers did of a painting by Vincent Van Gogh. The painting, called *White House at Night*, features a particularly bright star in the background. “The title says that it’s night and yet there is this star that is so bright it looks more like the sun in the painting,” explains Hechter. To further complicate matters, the painting shows the rays of the sun on the front of the house, coming from the opposite direction. “All of which raises the obvious question, ‘What is the star?’”

When researchers from Southwest Texas State University looked into the matter, the answer astounded them. “The ‘star,’ it turned out was Venus but, and this is the amazing part, there was only one day in history when Venus would have been that bright and in that particular location,” says Hechter. “That is probably why Van Gogh painted it in the first place. It was a highly unusual event to see such a bright star at seven o’clock at night.”

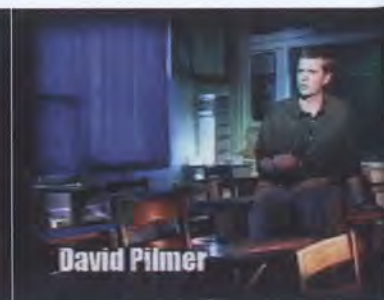
The discovery and who made it reveals something very important. “Real scientists care deeply about paintings and literature and history,” says Hechter. “It is only in school that we build walls between these subjects.” And finding and teaching about these overlaps is a valuable way to build bridges between subjects.

Moving from the abstract world of mathematics and science to a new understanding of the world and personal growth has to begin with a new understanding of the basics, adds David Pilmer of The East Hants Rural High School in Milford, Nova Scotia. Basic skills in mathematics, for exam-

ple, are often defined in terms of tools that students can pick up and apply, he explains. Traditionally, students were taught these skills individually and given little guidance on how to apply them beyond “a series of highly contrived word problems at the end of every chapter in the textbook,” he says.

“As a result, we tended to churn out students who were very good at solving for ‘x’ but had little idea what ‘x’ meant and how the equations they were working with could help them better understand their world.”

Pilmer reminds us that, historically, many developments in mathematics were directed by individuals who wished to understand and create models for



many real world situations. Mathematics, to a large extent, developed from a need and was critical for advancements in many other disciplines. “If we show our students a need for mathematics, they are far more likely to commit the time and energy into the relevant subject material. Yes, you can do purely abstract mathematics once you have a solid understanding of this ‘basic,’ but learning mathematics begins in experiencing the world and experimenting to learn more about that world.”

Pilmer freely admits that this approach means hard work for math teachers. “I have had to completely rethink the way I teach mathematics in order to implement a new constructionist curriculum — giving students problems to solve, but not the skills to solve them, and getting them to work together to develop the skills and find solutions — and I am still working on some things.”

Rather modestly, he says, “I knew I couldn’t carry it off on the basis of personality.” But to see Pilmer effortlessly get a group of fellow Prime Minister’s Award recipients to strike bodybuilding poses and shout out the answers to questions about quadratic functions in outrageous Austrian accents puts that claim in some doubt. However, there is no doubt about his claim that it is creativity that makes the constructionist approach work (see “This is Math Class?” left).



This is Math Class?

While not actually answering math questions themselves, robots help David Pilmer teach a valuable employment skill to his students.

“One bit of feedback I get from the working world is that too often engineers, architects and managers have no idea what it takes to translate a project on paper into a final, finished product. To succeed in the working world, my students need to understand that being very skilled at abstract reasoning is not enough. You have to be able to do that reasoning in a way that you or somebody else can apply it to make things happen.”

To teach this lesson, he uses simpler versions of some competitions he has seen students take part in. In 2000, for example, his students were asked to construct devices that did something similar to robot sumo wrestling. Two of these devices at a time were then set on a raised platform and each had to attempt to flip over the other or push it off the platform. In another year, the devices had to pick up ping pong balls and then deposit them in a receptacle at the top of a ramp.

The projects need not be elaborate, adds Pilmer. The crucial point is that the students have to plan, build and modify some sort of device that actually does something.

“The lesson, I have learned over the years is that anything that involves devices that compete with one another or crash into one another will be popular. And anything that involves water — don’t do it.”



For Wendy Van Haastregt, a science teacher at Burnsvie Junior Secondary School in Delta, British Columbia, the connections between science and personal development are unavoidable. She teaches at the junior high level, and all students take science. Her students range from those still struggling with Grade 3 reading skills to those who are clearly university-bound. She makes it her goal to ensure that all these students take something away from her science courses. "Most kids are not going to become traditional scientists, but everybody has science in their lives," she explains (see "The Science in Students' Lives," right).

Even if they never do another day of science study after leaving her classroom, Van Haastregt's students graduate from junior high with three solid pluses from their science education. They will have learned how to learn — the approach they have used to master science concepts will help them to learn in the rest of their schooling and beyond. They will have learned positive attitudes about life and choices. "Science is a remarkably good subject for teaching us about the consequences of our actions, such as dumping things down the drain," explains Van Haastregt. Finally, they will have learned how to understand the scientific information they will have to deal with in their daily lives.

I Can Do This

"I love the 'Aha!' moment," says Van Haastregt, "when a child realizes 'Hey, I can do this.'" This very important for Van Haastregt. She wants her students to leave the class with the feeling that they "can do." This is an achievement that goes beyond covering the

David Pilmer The Hants East Rural High School Milford, Nova Scotia

David Pilmer tells his students not to close doors for the wrong reasons. Just because students are good at something doesn't mean they have to choose it as a career. Instead, he tells them to reflect on strengths and weaknesses and decide what they want to pursue. Then, they can work hard to make sure they succeed in those areas. And, as long as they are in his class, he shows them how hard work will translate into success in mathematics or any other subject.

The Science in Students' Lives

One of the perennial challenges of teaching science is making it relevant and authentic. Science education prepares young people for the future but they need to see why it applies to their lives now. For students in junior high, when career choices are still several years away, it is even more difficult to do this.

One strategy that has worked for Wendy Van Haastregt, of Burnsvie Junior Secondary School in Delta, British Columbia, is to use news items to stimulate discussion of topics such as pesticide use and genetic engineering. She organizes "community meetings" during which students play the roles of politicians, environmentalist activists, parents, medical professionals, business people and other interested parties. "The students take their roles very seriously, researching and even phoning people in the community," reports Van Haastregt. "They get involved emotionally."

For an additional challenge, students are asked to switch roles and argue from another perspective, adds Van Haastregt. "Being able to change roles and look at issues through different lenses is a valuable skill that prepares them to handle more complex issues."

Van Haastregt also creates opportunities for her students to see how science is used in their community. In 2001, more than 100 of her students collaborated with community science specialists in independent science projects. There is a lot of opportunity for this sort of project, explains Van Haastregt. "In our community it has been possible to get students working in aviation, engineering, fire fighting, radiology, agriculture, nursing, photography, ecology, forensics, industrial methodology, pharmacology, dental hygiene and more."

In addition to the hands-on experience, a few students even received offers for summer jobs and some even changed their education plans, adds Van Haastregt. "One student even told me that the experience had given him a career to study for and build up to."

curriculum. "If I can get all the students, including the ones who are working at a borderline level, to be able to not necessarily master something but to be competent at doing it and to know they are competent in ways they hadn't anticipated, even to a small extent, then I have accomplished something big."

One good way to remind students of just how much their learning empowers them is to do pre- and post-unit activities to establish how much they know. "When we talked about salts one year, all they could come up with before the activity was that salt makes food taste better," says Van Haastregt. Afterwards, they were able to go on for quite some time about the properties of salt, when it is produced by the body, the effect it has on liquid consumption and so forth. "The students realize that they couldn't do this an hour ago but now they could."

For the high flyers, who obviously have no difficult deciding they can do science, Van Haastregt comes up with different challenges that allow them to have other kinds of I-can-do-this experiences. First, she offers them the opportunity to volunteer to be tutors

Wendy Van Haastregt
Burnsview Junior Secondary School
Delta, British Columbia

Wendy Van Haastregt's goal is to bring science to everybody; to get her junior high students to the point where they have some appreciation of the role of science in their life and in society. If she can get students who are working at a borderline level to appreciate science and to succeed to even a small extent, then she believes that she has accomplished as much as she does when she takes the A students and prepares them for higher level science.



to classmates. "Not all kids are developing as fast socially as they are academically, especially the bright ones who have been carried along on the strength of their neurons," she explains. If these students are given the chance to act as tutors, they can develop social skills to complement their academic ones.

These students also have the chance to expand their learning horizontally. Too often, the only opportunity for gifted students is some sort of advanced program. There are, explains Van Haastregt, lots of ways to expand laterally as well that feed students' other interests and natural curiosity. For example, she encouraged one very athletic student to go beyond a planned nutrition unit and study the effects of different types of diet on energy level and fat and muscle development. "He brought back information about some of the fast foods that the kids were eating that grossed them out," says Van Haastregt with a laugh.

What it Takes to Do Science

Richard Hechter likes to shake up students' ideas of what it takes to do science. If you ask students, they typically say that you need apparatus to measure and





collect data and a rigorous methodology to apply to the data. This understanding is largely mythical, Hechter explains. "Einstein, famously, did his scientific work without any apparatus other than his brain and a piece of paper," he says. Historical research into how famous scientists actually achieved the results they did shows that they did not follow a single scientific method so much as a variety of different methods, he adds.

Science isn't a cold application of technology and method but an emotionally charged social activity, says Hechter. "I like to drive this home by teaching a unit on the first chapter of Hemingway's *The Sun Also Rises*." At the end of the unit, he asks the students how they feel. "They tend to be very angry," he says. "They are paying money to get a science credit and they don't see what this has to do with it."

"I then point out that this is exactly the way people responded to Copernicus," explains Hechter. Copernicus's new world view didn't seem to have anything to do with established science. He upset people's ideas of what they could expect from science and that made them very angry.

Richard Hechter

The Collegiate at the University of Winnipeg Winnipeg, Manitoba

For Richard Hechter, just about everything — art, history, culture, the sun, moon and stars — is a matter for scientific investigation. He uses this wide palette to teach his students that science has important things to say about who we are, where we are in the universe and where we are going. This bigger perspective, makes science fun and interesting so that students enjoy it far more and, consequently, learn far more.

The inside joke, adds Hechter, is that the first chapter of *The Sun Also Rises* does have something to do with science. Hemingway has a character in the chapter comment on the wall of clocks old-time newsrooms had so that reporters could tell the time of day in various parts of the world. The problem is that Hemingway set up all the external references in the book so that you simply cannot figure out when in history the events are supposed to have taken place. "Copernicus upset people in a similar way because he upset all previous ideas about where in the universe the earth was," says Hechter.

It is quite amazing what you can do with your brain, says Hechter, when you put your mind to it. He tries to ensure students understand they can apply the "I can do it" lessons they learn in science anywhere. "I always say that education is the safest investment you can make. You can lose your house, your job or your savings but education is the one investment no one can ever take away from you."





Engaging and Evaluating Elementary School Students

In their first years of school, children learn the basics and in their last they learn the skills they will need for post-secondary education and the working world. But what happens in the middle?

This is no idle question. With the emotional roller coaster of puberty and the sharply rising academic demands of high school just around the corner, a positive experience in elementary

school can have long-term effects for students. A study of children in

this age group for Human Resources Development Canada

found that it is during the period from grades 5 to 7 that

some students begin to decline academically. Before

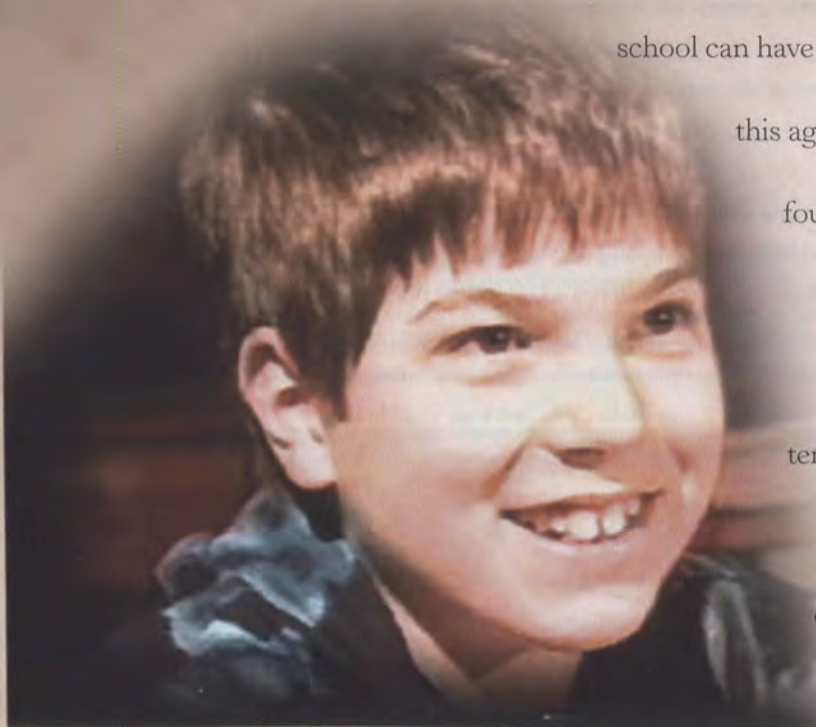
that period, students have different abilities but they

tend to be either consistent or show improvement from

year to year. Attitudes about school and the abilities

children develop in elementary school play a key part

in determining their performance in the future.



"First you have to help them find something that they are really good at. Then you can use that experience to motivate them to work on things they are weak at."

—Connie Buchanan

Lucie Laroche-Tétrault



Connie Buchanan



Hugues Émond



These perceptions are largely founded on the realities of elementary school, says Lucie Laroche-Tétrault, a Grade 6 teacher at École de la Mosaïque in Saint-Basile-le Grand, Quebec. "Imagine what it feels like to be a struggling student," she says. "They have beat their heads up against the wall and have been reminded again and again that they aren't as good at some things as their classmates. If all we offer them is more of the same, we have failed them."

It is crucial to give students an opportunity to find out what they are gifted or talented at, adds Connie Buchanan, of White City School in White City, Saskatchewan. "First you have to help them find something that they are really good at. Then you can use that experience to motivate them to work on things they are weak at."

There is also a perennial question that must be answered for young students: "Why are we making them learn this stuff, anyway? I asked it when I was a student and I think we have to ask it of ourselves as teachers," says Hugues Émond of École Sainte-Marguerite in Magog, Quebec.

The Project Approach

For all three teachers, the best way they have found to deal with these challenges is to create projects that allow students to improve a broad range of competencies.

Émond travelled the road to projects by bicycle. "Every day I take a long bicycle ride and I often spend that time thinking about ways to improve my teaching." Revelation came to him several years ago when thinking about new manufacturing methods.

"Automobile manufacturers had begun using teams to build a number of cars on the same platform," he explains. Using this approach, each team member develops a broad range of competencies and understands how these fit into the larger picture. "I stopped thinking about ways to teach individual skills and started thinking in terms of learning environments," says Émond.

Lucie Laroche-Tétrault

École de la Mosaïque, Saint-Basile-le-Grand, Quebec

For Lucie Laroche-Tétrault, teaching is tantamount to re-inventing the world every year: doing everything possible to ensure the school year becomes an exciting adventure all students will remember. How does she do it? By making generous use of her imagination, doing research, feeling a genuine passion for her students, and relying on the support and the skills of selected contact persons. This is all it takes to make teaching a captivating adventure.



That thinking produced the Virtual Class (<http://www.station05.qc.ca/css/ecoles/stmarg/cv/accueil.htm>). Émond's Grade 6 students use technology to interact, solve problems and publish finished assignments.

Buchanan transforms her classroom into a castle, a cave or the hull of a ship, stimulating learning environments for projects on subjects such as medieval times, rocks and minerals and the *Titanic*.

Projects create many diverse tasks for students, says Buchanan, explaining why they have such appeal for her. Many students have no idea that they are good at anything. "With a project, you can give them roles that correspond to their strengths, and this helps build their sense of purpose," she explains. "Then you can have them help others who are weaker and develop leadership skills, too."

A project also gets everyone focussed on a goal, which is a huge advantage, adds Buchanan. "Understanding how what you are doing in a classroom ties into the bigger picture is a constantly recurring problem for students," she explains. Projects help to overcome that. Buchanan's Grade 4 and 5 students have put on plays, built models and created newspapers at the end of their projects.

Having that final goal is what transforms project work into serious study, adds Laroche-Tétrault. Her Grade 6 students develop language, artistic and theatrical skills through, among others, a project about an imaginary land, *The Forest of Speaking Beauty* (see "An Enchanted Forest," next page). "When my

students set out to create a puppet play about the Middle Ages, they have to do research," she explains. "And it is real research. They can't just cut and paste from existing sources because the material they collect has to be useful for their project."

"People think that in project learning, the children do what they want," continues Laroche-Tétrault. "It doesn't work like that. They have to deliver a final product."

A project also imposes a schedule and there is a certain amount of peer pressure to keep up with what other groups are doing. "Finally, there is the students' pride in being able to show these things to their parents," says Laroche-Tétrault.

To Test or not to Test?

That sense of achievement is an important aspect of project-based learning to be sure, but how does a teacher figure out whether students actually learned what they were supposed to from the project and grade their performance?

Views on the place of testing in projects sparked an emotional discussion among the 2000–2001 Prime Minister's Award recipients, and clearly distinguished the teachers who rely heavily on projects from their colleagues. While Émond, Buchanan and Laroche-Tétrault use testing in their teaching, they tend to de-emphasize its importance considerably.

Émond, for example, is convinced that the ultimate foundation of any evaluation is judgment, which must,



in turn, be based on sufficient, relevant information that gives meaning to the decision. Planning, information gathering, interpretation, judgment and communication are the stages of evaluating learning for authentic pedagogical projects. He equates evaluation by teachers to a doctor taking a wide variety of factors into account to make a diagnosis. These factors may include the results of a blood test, but, ultimately, the basis for the diagnosis is the doctor's professional judgment and experience, and information obtained during previous appointments with the patient. Similarly, Émond argues, teacher evaluations are like medical diagnoses: they are based on the teacher's judgment and do not necessarily require testing.

In the group discussion, he was challenged on this by several of his fellow recipients.

"I know you are a responsible teacher," said Carmie Maclean, a Grade 6 teacher at Tusarvik School in Repulse Bay, Nunavut, explaining why she felt that some external measure of student progress is necessary. "But we both know there are other teachers who aren't so responsible." It is easy, argued Maclean, to fill a day with activities that occupy children without really teaching them anything, and without testing some teachers will succumb to this temptation.

While concurring about the need for accountability, Émond said that testing isn't the best way to achieve it. The solution is to encourage greater professionalism among teachers. There are other and better ways than testing to ensure students are learning what they are supposed to.

An Enchanted Forest

"Learning the French language and its rudiments is often a chore for students," says Lucie Laroché-Tétrault, a Grade 6 teacher at École de la Mosaïque in Saint-Basile-le Grand, Quebec. "Every time I started French class, my students would say, 'Please, no grammar rules, no conjugation, no spelling.'"

Laroché-Tétrault found this very frustrating because it made it difficult for her to pass along her passion for the French language, literature and culture. She was able to inject some excitement by inviting journalists and authors to her classes but, inevitably, the students would balk when the time came to learn the rules.

About five years ago, she shared her frustrations with Sylvain Perreault, a communications specialist and the parent of one of her students. Using a concept developed by Perreault, they collaborated on a project called "The Forest of Speaking Beauty" and created an imaginary enchanted forest that draws heavily on French culture. In this enchanted forest, Laroché-Tétrault assumes the character of the Duchess of Amusement and Perreault that of Sir Cumflex of Umlaut. Dressed in medieval costumes, they help the students discover a world rich with legends, fables, poetry, songs and rhymes.

To make the forest real, Laroché-Tétrault transforms her class into a theatre stage for the duration of the project. The classroom is full of special sets where students meet knights, a town crier, street performers and talking animals. "The kids love the break from the routine, although that is not necessarily true for our poor janitor who has to do the cleaning in a forest!"

The project takes the form of four multimedia workshops per year. Laroché-Tétrault first introduced it to her Grade 6 students, but on the request of the school's principal, Francine Lelièvre, the enchanted forest is now accessible to pupils from Grades 1 to 6.

Each visit is built around a theme made up of several learning objectives. For example, Laroché-Tétrault's Grade 1 colleagues told her that a number of students had difficulty recognizing the consonants *d*, *b*, *p* and *q*. "We created characters for each consonant and gave them names such as Dedecibel, Bebopbedou, Pepe's Band and Queboom."

In addition, Laroché-Tétrault and her colleagues created a talking frog who had difficulty pronouncing the names of these consonant characters. "Each time he made a mistake, he became sad and frustrated. These were feelings that the children could readily understand since they were struggling with the same problems," says Laroché-Tétrault. "As the imaginary events continued, the frog gradually made progress," she explains, "and when he finally got it right, they cheered."

Each year, the students advance to another level of learning, and in the final two years, they focus on the larger world. "They get to become characters themselves and they really enjoy doing the research about the knights and troubadours they are asked to portray." The children also have an opportunity to present some of their work to other classes or their parents, which makes them even more responsible for their learning.

"They throw themselves into it with an enthusiasm they could never muster for grammar rules and dictionaries," concludes Laroché-Tétrault.

Connie Buchanan

White City School, White City, Saskatchewan

Connie Buchanan asks herself the following question about each of her students: "If this were my son or daughter, how would I want them to be treated in the classroom and what experiences would be most valuable at this stage in their life?" She believes in creating a student, parent and teacher team to allow each child to experience the excitement of learning and to recognize and apply their particular gifts.



For example, Buchanan organizes her curriculum objectives into rubrics and tracks them throughout her projects. "The students themselves learn to evaluate their progress," she adds. "They may not understand a term such as *communication skills* but they know what participating and sharing ideas means. They can become quite good at evaluating their own progress and figuring out where they have to work harder."

Buchanan does use some testing in her teaching ("My students do tests so they know what one looks like.") but the bulk of her students' marks comes from the rubrics. Buchanan also ensures that there is a record of student performance that parents can track by having students keep electronic portfolios of their work and performance (see "Recording Student Progress Electronically," next page).

The work itself tells a lot about what the students have learned, agrees Laroche-Tétrault. "What I have realized over the years is that it is the final product that matters." A well-designed project has an objective that ensures accountability because the students simply cannot produce the product without meeting the curriculum objectives.

And many of the skills taught and evaluated are pretty traditional, adds Laroche-Tétrault. "The students have to apply grammar rules and conjugate their verbs and I evaluate them on that."

Émond also uses meetings with parents and children in his evaluations. "I have the children explain to their parents exactly what they have learned and where they need to do extra work," he says. "Children get a better understanding of what evaluation really means and why it is important."

"I think as students get older, the kinds of learning that are appropriate change and testing becomes more relevant," continued Émond in response to comments from the secondary school teachers that the ability to pass tests is, in and of itself, a necessary skill. Even at the primary level, he said, there may be circumstances in which using some testing is the way to go.

Knowing when to test and when to use other measures of progress and carefully presenting these to parents is a key element of any project approach, agrees Buchanan.

Hugues Émond

École Sainte-Marguerite, Magog, Quebec

Hugues Émond's teaching strategy comprises three elements:

- Creating a learning environment that allows the students to acquire both knowledge and the ability to learn while developing their autonomy;
- Ensuring that students do not lose their motivation to learn throughout their primary school career;
- Using a teaching approach that takes into account both the students' situation outside the school and knowledge they have already acquired.





A project approach also has to be properly introduced to school authorities and fellow teachers, she adds. "Others understandably want to know how this fits in with what they are doing and whether there is an expectation that they will also adopt this approach," she explains.

One of the best ways to sell the approach is to start small and demonstrate success, adds Laroche-Tétrault. That success has amazed even Laroche-Tétrault herself. "These projects have been the high point of my teaching career."

Émond, Laroche-Tétrault and Buchanan agree that it is an exciting time to be teaching at the elementary level. "There are a lot of interesting new approaches and techniques being developed right now," says Buchanan.

Recording Student Progress Electronically

An electronic portfolio is a collection of student work that is published electronically — on the Internet, on an Intranet or even on a CD.

Students select the work to be included in the portfolio with a particular purpose in mind. Most often, it is to keep school work that they are proud of and show that they have met certain objectives.

As such, electronic portfolios change the way students think about evaluation. A typical assignment is something a student does thinking that the teacher and only the teacher will see it, says Hugues Émond. "If students ask themselves, 'Why am I doing this?', the only possible answer is, 'To get a mark.'"

In contrast, students show items in their electronic portfolio to their friends, their parents and, most importantly, themselves. A student who continues to get the same mark on each test or report card is still learning things and making progress, but it is hard to tell. With an electronic portfolio, by contrast, a student can easily compare past with current performance. "Anyone, including the children themselves, can see that they have made progress, that this month's work is better than last month's," says Connie Buchanan of White City School in White City, Saskatchewan.

The chief challenges of setting up electronic portfolios are in deciding on the format and how to organize the content. There are a number of resources available to teachers interested in finding out more, including the following Web sites:

- <http://transition.alaska.edu/www/portfolios/toolsarticle.html>
- <http://www.stemnet.nf.ca/curriculum/technology.php> (search for portfolio)
- <http://www.essdack.org/port/index.html>



Professional Development: Lifelong Learning for Teachers



Professional development “is not a frill,” insists Lola Major, social studies teacher at Lethbridge Collegiate Institute in Lethbridge, Alberta, an enthusiastic participant at professional development sessions, both as observer and presenter. Professional development for one teacher benefits the entire school, she says, by bringing fresh ideas, insights and enthusiasm to everyone.

Educational expectations and curricula are constantly evolving. Advances in technology require new skills and offer new ways of learning, both in school and later in a complex and changeable job market. Professional development helps teachers keep up with those changes and pass them on to their students.

And there’s something for everyone, Major adds. Professional development is more than large conferences offering a variety of sessions to a large number of participants at one time. There are workshops and seminars, bringing an expert or experienced teacher to an interested audience for a guided practical discussion of an educational situation within a smaller group. Round table discussions, similar to workshops, allow a group of stakeholders to share their views on a situation or educational issue.

Professional development can be a solo effort, too. Books, magazine articles and lesson plan packages provide a resource and reference for teachers unable to attend professional development sessions. University courses to upgrade a teacher’s skills and knowledge in a formal, regulated way, offer the opportunity to move into a new area of expertise or broaden understanding of the needs of a particular student group.

Finally, mentoring, the exchange of one-on-one advice and guidance between two teachers can be an excellent opportunity for new teachers to benefit from their mentor’s experience and experienced teachers to add new skills and knowledge to their repertoire.

With such a huge number of professional development resources available, Major comments, it can be as much of

*Professional development for one teacher benefits
the entire school by bringing fresh ideas, insights
and enthusiasm to everyone.*

a challenge choosing which resource to access as it is to actually upgrade teaching skills. The effort is well worth it, though, she adds.

Professional development is a terrific resource to the whole of education, Major continues. It simultaneously challenges teachers to “do better” and offers suggestions on how to achieve that goal. At the same time, professional development sessions develop peer networks and give teachers an opportunity to share their ideas with the educational community. It’s a two-way street: ideas travel from professional development sessions to the classroom, and from the classroom to professional development sessions.

In the process of developing an individual teaching style or when faced with an educational challenge, teachers will develop lesson plans, teaching strategies and approaches that are uniquely their own, explains Barry Lindahl, a social studies teacher at West Vancouver Secondary School in West Vancouver, British Columbia. Often innovative, imaginative and exciting, these strategies shouldn’t be kept in just one classroom, Lindahl continues, they should be shared through professional development. Other teachers may be facing the same challenge, need the same insights or be

excited by the opportunity to add something new to their teaching experience.

Ultimately, professional development benefits the student behind the desk. After the inspiration, the excitement and the satisfaction of a professional development session, a refreshed and inspired teacher, with a new and interesting teaching strategy and a better insight into the educational abilities and needs of students, is a better teacher.

“Anything and everything is a learning experience and can be seen as professional development,” explains Major. “In teaching, no two days are the same and there’s always a chance to do better.”

Certificate of Achievement Recipients,

The 2000–2001 Certificate of Achievement recipients are listed here by province. For each of the 50 recipients, there is a short biography and a description of some award-winning teaching ideas. If you are interested in contacting one of these outstanding teachers, please call our hotline (1 800 575-9200) or send an e-mail to pmawards@ic.gc.ca.

Newfoundland and Labrador

Sharon Brennan

Holy Heart of Mary High School, St. John's
Biology, Department Head

Sharon Brennan knows that teaching touches students' lives for ever. Rather than be intimidated by this, she sets out to establish scientific literacy in all her students regardless of their academic ability or career aspirations. Creating real-life practical activities and innovative teaching methods, she prepares students for both higher learning and work world, developing necessary skills and work habits. Her classes provide students with tips on effective listening, note-taking, homework study tips and test/exam preparation guidelines to encourage lifelong good study habits. High enrolment, attendance rates and pass rates in her classes demonstrate the success of her methods.

Fred Carberry

Herdman Collegiate, Corner Brook
Physical education

By the time they get to high school, many students avoid physical education in favour of academic courses. Fred Carberry thinks this is a mistake and sets out to challenge and teach students about the importance of physical activity in good health. Herdman Collegiate has a vibrant and active physical education program with extremely high participation rates. Between 75 and 78 percent of students take physical education courses, thanks to Mr. Carberry's efforts. Physical education courses also include more than sports, focussing on developing the habits of a healthy productive life style such as tutoring, community involvement, leadership and safety.

Peggy March

Macdonald Drive Junior High, St. John's
Grades 7–9 social studies

Understanding that learning is achieved through freedom to explore, Peggy March creates a structured and productive classroom atmosphere. Resource-based study units, such as "The Settlement of North America" and "Japan," highlight the importance of process as well as content in student learning and teach co-operation, initiative and group skills. Ms. March spearheaded the introduction of geographic information systems and geomatics into Newfoundland classrooms. Her initiatives have increased student participation in local, provincial and national Heritage Fairs. Over the years, several students have earned top three placements in the Great Canadian Geography Challenge.

Joanne Sparkes

Mount Pearl Senior High, Mount Pearl
Mathematics

"Joanne Sparkes' passion for mathematics is clearly demonstrated and known to all her students," says a former principal. And it's demonstrated by the wide variety of math-related initiatives she's undertaken at Mount Pearl. The Problem of the Week contest at school increases interest and proficiency in mathematics. A well-attended school mathematics team participates in Saturday Math League Competitions. The Advanced Placement Calculus program established in September 1995 has grown from three to fourteen students. Her introduction of graphing calculators to the curriculum has boosted students' understanding of math concepts.

2000–2001

Nova Scotia

Catherine Viva

Dr. T. L. Sullivan Junior High School, Florence
English, learning strategies

Catherine Viva has a two-pronged approach to teaching. First, she sees each student as having special needs. Second, she encourages success through organizational study skills. This approach ensures that every student participates and learns. Her severely learning disabled students participate in a Learning Circle activity that improves their communication skills, computer literacy, confidence, independence and maturity level as much as one, two or three grade levels in a single year. Peer mentoring and student tutoring programs develop interest and confidence in learning in both older and younger students.

New Brunswick

Paul Sweezey

Petitcodiac Regional School, Petitcodiac
English, writing, theatre arts

No one drops out of Paul Sweezey's classes. Innovative research and presentation projects, script writing and community involvement engage student interest while teaching the relevance of English in today's society. Mr. Sweezey promotes the development of critical skills by developing good rapport with students, and opens students' eyes to the lifelong learning potential of reading for enjoyment by ensuring that English class is always an exciting and interesting place. Mr. Sweezey's students consistently score above average in provincial English exams. Several have gone on to study English, theatre and other disciplines at post-secondary institutions after graduation.

Quebec

Benjamin Bartucci, Judith Leonard, Hisham Abdel-Rahman

The Alternate School, Saint-Lambert

All subjects in alternative learning environment

The team of Benjamin Bartucci, Judith Leonard and Hisham Abdel-Rahman place full responsibility for change directly on the student. They use teacher accountability, extended counselling and community-based projects to foster this change. Their program addresses the needs of at-risk students and their overall growth — not just academics — towards a balanced, productive life. Success is achieved with four rules (No drugs. No alcohol. No skipping. No lying.) and innovative courses combining academics with life experience. In 2000, 93 percent of the senior students graduated. Annually, 75 percent of students return to mainstream education, or continue on to CEGEP, trade schools or university.

Cathy Evans

Bishop's College School, Lennoxville
English Department Head, teaches English, Advanced
Placement English, language arts

The best way to learn to write is just to write, preferably every day. Cathy Evans creates many opportunities for her students to practise their writing with interesting, challenges projects and solid feedback. She founded *Inscape*, the school's literary magazine which publishes the work of 50 to 60 students each year and is entirely produced on site, spearheaded school's participation in First Fruits, a provincial writing competition sponsored by the Montreal Jewish Public Library and encourages entry in other writing competitions. Both *Inscape* and Bishop's students have won numerous awards.

Marguerite (Marcy) Fewkes

Hebrew Academy, Cote St. Luc

Mathematics and Science Department Head, teaches human biology, physical science, physics, advanced chemistry

Science comes to life in Marguerite Fewkes' classroom, as she develops interesting and stimulating assignments and class activities that show the connections between science and real life. Biology students research family medical conditions or diseases, while chemistry labs research the properties of everyday items. Ms. Fewkes sets high standards for students while providing them with tools for success, including lunchtime tutoring and extracurricular activities such as Earth Day, International Chemistry Week and leadership programs. A majority of students take advanced science course electives. Students consistently place in top five percent on provincial exams

Maria Mastracchio-Lafontaine

Merton Elementary School, Cote St. Luc

Kindergarten French immersion, all subjects

When Maria Mastracchio-Lafontaine's students remember their kindergarten class, they will recall a warm, nurturing and inquisitive learning environment where they learned to get along together and work productively. They'll remember playing chess to learn mathematics problem-solving skills, bright wall hangings teaching French sentence structure, or colour and shape recognition, language Bingo games and a host of other creative initiatives. Grade 5 students will remember their time in her class joining the latest kindergarten children in several reading and writing activities. Ms. Mastracchio-Lafontaine also initiated a peer mediation program in the school and trains a minimum of four student teachers each year.

Ontario

Donna Cox

Calabogie Public School, Calabogie

Multi-grade class (junior and senior kindergarten and grades 1 and 2), all subjects except French

Often short of both resources and students, rural teachers need to be inventive and flexible. Donna Cox is a prime example. She excels at the complex teaching task of split grades and shares her lesson plans, activities and resources for multi-grade teaching at

workshops for fellow teachers. Her students achieved the highest scores in the area on provincial English and mathematics tests. Ms. Cox makes good use of computer technology in the classroom, and e-mail and Internet projects provide valuable reference material. She has also supported the introduction and use of computer technology in school, leading staff training and providing technical support.

Chuck Daly

St. Pius X High School, Ottawa

Co-operative education

Chuck Daly sees learning as a partnership between the student, school and community. His teaching aims to develop learning experiences beyond the walls of the classroom. Following this philosophy, he developed and implemented an initiative to engage all students in co-operative education, regardless of level or ability. As a result, St. Pius X High School has the highest number of students in the board participating in co-operative education programs. Mr. Daly also gives students a new understanding of Canada's judicial system with interesting guest speakers, including Joyce Milgaard and Ontario Supreme Court Justice James Chadwick. His informative and relevant curriculum delivery results in consistently high enrolment.

Dianne Dillabough

North Field Office, Peel District School Board, Brampton

Resource teacher for school board

The 'Dianne Dillabough method', an innovative and highly successful instruction method for students of all ages, identifies critical elements to ensure student success in both research and writing. Ms. Dillabough believes that only the learner can learn; teachers are there simply to frame the information and enable that learning. With her method, students demonstrate an improved ability to organize their research and writing projects, better comprehension of material and increased self-confidence in their learning ability. Scores in provincial Grade 3 and Grade 6 testing have risen significantly in reading and mathematics.*

Fred Driedger

Kingsville District High School, Kingsville

Science Department Head, physics

"If Mr. Driedger is teaching it, you know it's a good course," says a student. Fred Driedger's classes show

the highest attendance and the lowest failure rate in the school. Mr. Driedger is a leader in exploiting the teaching potential of technology. He began using computers in 1990, encouraged student use of computers in independent study projects and conceived and developed a new credit course on robotics. One of the first to take advantage of the Internet, he developed a Kingsville Science Department Web page to showcase new ideas, home experiments and examples of students' work.

Dale Hubert

Wilfrid Jury Public School, London

Grade 3, all subjects

Committed to seeking out and using tools that tie curricular expectations to his students' everyday lives, Dale Hubert conceived, created and maintains the Flat Stanley Project (<http://www.flatstanleyproject.net>), a Web site designed to develop literacy with primary school students. Children make Flat Stanleys and mail them around the world. Recipients keep a journal of Flat Stanley's journey and adventure, then mail it back. This project has extensive curriculum applications: it integrates technology with the curriculum, connects students around the world and is interesting and motivating for both teachers and students.

Jacqueline Kelly

Central Public School, Grimsby

Grades 4, 6, 8, core French

By expecting students to grow in their ability to listen, understand and communicate, and teaching them to think both critically and creatively, Jacqueline Kelly is developing leaders for the present and the future. She employs a variety of teaching strategies for a high rate of student involvement and increased learning. Her theme-based projects relate curriculum to real life situations and successfully accommodate the high energy level of this age group. Sharing this expertise with other teachers, Ms. Kelly created a supplemental program for grade 4 core French. "Premier contacts/First Contacts" gained enthusiastic feedback from pilot teachers, students and parents.

Bernie Lawrence

Brick Street Public School, London

Alternative Parent Participating Learning Experience (APPLE),
grades 3, 4, 5, 6, all subjects

Education begins at home. A partnership between home and school is integral to a child's success. Following that conviction, Bernie Lawrence has developed a stimulating, exciting, respectful, accepting learning environment that uses high expectations, the skills, talents and knowledge of parents and guest speakers, field trips and activity-based projects to help students reach their full potential. Students learn academic responsibility and gain a sense of pride through planning, agenda use and self-discipline. Students learn social responsibility and to be respectful and supportive through group work and fundraising projects in the school.

Aileen Moyle

St. Francis of Assisi Catholic School, Orleans

Grades 4, 5 and 6 resource teacher

"Aileen Moyle is like a messenger of hope in the life of our family," says a parent of one of Ms. Moyle's special needs students. Ms. Moyle's cheerful example and guidance inspires students, staff and parents to reach and exceed their potential. For example, she designs individual novel studies for Grade 6 students that allow students with reading difficulties to participate in class activity, matches special needs students with peer tutors to help with successful integration in the classroom and teaches non-verbal cueing strategies that help all students develop social skills. Provincial test scores improve yearly.

Janet Murphy

Toronto District School Board, E-Learning Department,
Toronto

Co-ordinator of E-Learning

Janet Murphy believes that there is a student-centered shift in educational priorities and providing access to digital learning opportunities is increasingly important. The E-Learning program builds competency in information and communications technology, allows students to reference databases, guidance support and curricular resources at their own pace and leads to system efficiencies and financial savings. Ms. Murphy spearheaded the Knowledge Network, with more than

500 courses available for students, teachers and staff, and the Virtual School offering 14 on-line credit courses for students, each with a teacher/mentor, tutorials and leadership programs.

Ian Naisbitt

Concord Public School, Windsor

English, mathematics, science, social studies, physical education, visual arts, drama

The Little River Enhancement Group (Lil' Reg) is Ian Naisbitt's way of teaching his students that working collaboratively has profound possibilities and can accomplish what may seem insurmountable — making a difference to the global community. The program is an ongoing, hands-on activity and curriculum-based environmental studies program that has expanded to involve other area schools and the whole community. Lil' Reg has cleaned two kilometres of the Little River and planted more than 13,000 trees. Mr. Naisbitt has further integrated environmentalism into the classroom: his students write letters to politicians and companies and publish an environmental newsletter.

Carol Oriold

Listowel District Secondary School, Listowel

Dramatic arts

"Without structure there can be no freedom," says Carol Oriold. By animating and vitalizing the dramatic arts programs at Listowel District Secondary School, she gives her students the freedom to express themselves with confidence and gain experience on stage and behind the scenes. Ms. Oriold provides students with real world theatre opportunities, edits and encourages budding playwrights, and supports and mentors prospective directors. Many continue with further study and professional careers. She also wrote a teacher's manual for the integration of drama into the language arts curriculum for grade 7 and 8 and a dance lesson handbook for kindergarten to grade 6.

James Palmer

Athens District High School, Athens

English, music, history, special education

James Palmer sees abilities where others see disabilities. Described as a "Renaissance teacher" by a colleague, he has piloted the integration of challenged

students into the classroom in his school district, organized exchange trips between learning disabled students from Athens District High School and students from Halifax, and integrated a severely handicapped student into school and band. Computer technology makes music accessible to more students, so over the years, he has developed a music technology lab in conjunction with instrumental music programs and encouraged students to join on-line jam sessions, compose music and enter competitions.

Carol Scaini

Robert J. Lee Public School, Brampton

Grades 7 and 8 core subjects, grades 1-8 physical education

Capturing her students' imagination and enthusiasm to encourage them to explore, persevere and learn, Carol Scaini creates fun learning activities for her class, including a real-life migration game that assigns an imaginary personal profile to each student, who then research all steps necessary to move to another country. A class pet dwarf rabbit teaches ownership, responsibility and kindness to animals, and a lunch-time intramural program promoting fair play, honesty, and good sportsmanship through play results in improved behaviour, skill and attention in class. Her student leadership class, Future Captains, teaches senior students effective leadership skills, communication, problem solving and event organization.

Carolee Sturgeon Mason

Perth and District Collegiate Institute, Perth

English, drama

Carolee Sturgeon Mason demands excellence from her students and teaches it by example with her interest, commitment and passion for her subject. She originated the English OAC Independent Study Brain Fair, presenting interdisciplinary independent projects in arts, sciences and humanities in a science fair model, and developed the use of direct e-mail contact with experts and authors in senior English independent study projects. The Drama Club teaches more than stage moves: students develop all the Canadian Conference Board Employability Skills while rehearsing, performing and travelling with a Drama Club production.

Anant Vijai Sukhram

Scarborough Academy for Technological, Environmental and Computer Education, Scarborough

Integrated technology, technical design, construction technology, Cisco networking

Instrumental in developing Scarborough Academy for Technological, Environmental and Computer Education (sa tec), Mr. Sukhram created programs, built computer furniture, set up the computer network and researched software. Sa tec is now one of the most successful magnet schools in the district, with increased enrolment in the school from less than 600 students total in 1995 to 600 applicants for 300 Grade 9 2000–2001 spaces. He gives students specific technical competency and all the other skills necessary to function efficiently in a rapidly changing world of technology, with project-based teaching and evaluation of language use, mathematical calculations, reliability of research and the process of work as well as the final results.

Russell Weil

Westmount Secondary School, Hamilton

Music, instrumental, vocal, keyboard, jazz, repertoire

Claiming that “if it’s not fun, it’s not worth doing,” Russell Weil has transformed the music department at Westmount Secondary School. In five years, enrolment has grown from seven classes to eighteen. This has enabled the hiring of two additional teachers and the creation of a jazz band and repertoire courses. An individualized curriculum challenges and motivates based on skill level and personal preferences. Mr. Weil promotes music performance trips, involving more than 100 students each time, to teach performance skills, life skills and teamwork. His motto inspires student confidence: “If you’re going to make a mistake, make it loud!”

Manitoba

David Barnes

Neelin High School, Brandon

EcoOdyssey, a semester-long integrated course with credits in English, physical education, geography, environmental studies and biology

EcoOdyssey is a crosscurricular semester program that provides both motivation and a variety of teach-

ing approaches for the students. Both, David Barnes believes, are key factors in an ideal learning environment and success both in school and life. EcoOdyssey students spend entire school days and many field trip nights carrying out individual community service projects, attending community lectures, workshops, political and social events, linked with expert resource people in community or on wilderness excursions. Students advance academically and personally; some receive the High Academic Achievement Award or Honourable Mention, or the Young Humanitarian Award and Red Cross certificate for community work.

Leslie Gentes

Sargent Park School, Winnipeg

Technology integrated with all subject areas

Leslie Gentes uses technology to create a stimulating, challenging environment that engages students’ minds. She implemented a school-wide technology plan to enhance classroom instruction, including professional development for staff, student activities funded by SchoolNet’s Grassroots and Computers for Schools programs, and the installation of at least two networked computers in each Nursery to Grade 4 classroom and six to ten networked computers in grades 5 to 9 classrooms. Ms. Gentes has instigated several initiatives to advance students’ learning experience, such as an introductory keyboarding course, age-appropriate activities to teach computer skills, and a morning computer club.

Scott Radley

École Powerview School, Powerview

Mathematics, computer science

Inspiring students to excel regardless of their abilities is Scott Radley’s goal. He motivates the at-risk students and challenges the gifted students to success. Mr. Radley initiated the introduction of computers into the school and maintains two well-equipped computer labs and networked computers throughout the school. There is school-wide interest and participation in technology and mathematics. Several graduates every year major in computer science and mathematics in post-secondary institutions, and many have received scholarships. He also steers students to success in other activities such as Reach for the Top and the Executive Business Game, the school year book and the track and field program.

Gail Wallis

Kildonan-East Collegiate, Winnipeg
Mathematics

Gail Wallis wants all her students to achieve excellence and is always on the look-out for ways to improve their learning. She spearheaded linking math with other academic areas in school and team taught a joint physics and pre-calculus course, developed a similar joint geography and math course and formed crosscurricular connections between drafting and mathematics courses. Ms. Wallis championed a consumer math course to make mathematics more accessible to struggling students and initiated use of graphing calculators in mathematics teaching. Students consistently rank in the top five in provincial mathematics examinations, despite the 60 percent vocational population in the school.

Saskatchewan

Elaine Belza

Val Marie School, Val Marie
Grades 2, 3, 4, 5, 6, all subjects, grades 7 and 8 math, grade 1 math and health

Children don't stay elementary students forever. While they are still little though, Elaine Belza's philosophy of Listen, Observe and Care achieves memorable results. She exploits a variety of teaching strategies, including using technology, project-based learning and group work to promote learning at elementary school and prepare students for high school. Ms. Belza utilizes computers to increase academic skills, specifically in mathematics, organizes large class projects involving research, writing and presentation to teach children to learn and work together, and allows students to work at own pace and jump ahead when they want.

Alberta

Vasile Bratu

Stratford Academic High School, secondary campus to Jasper Place High School, Edmonton
French, physics, science, mathematics

With the conviction that hands-on learning through laboratory investigations is the best way to learn physics, Vasile Bratu created an outstanding physics

program in a small school with no such previous program and limited budget. When Stratford amalgamated with Jasper Park, Mr. Bratu continued to teach all levels of physics along with four courses in French. His teaching gives students the opportunity to identify their areas of weakness and time to gain mastery in them, and resulted in a 100 percent pass rate in June 2000, a third of students with 80 percent or above.

Hélène Fisher

Olds Elementary School, Olds
Looping grades 1 and 2, all subjects

To teach her students that learning is a lifelong process extending beyond the walls of the school, Ms. Fisher collaborated with a partner teacher in Lloydminster, Saskatchewan, to create a SchoolNet GrassRoots Program unit on Japan. The unit is available for other classes at <http://www.lcsd.ca/projects/fathergorman/konnichiwa/index.htm>. While promoting class and student use of technology, she also encourages students to be risk-takers and ensures that every student experiences success regardless of their ability. She uses praise, positive statements and special tasks to encourage positive attitudes and behaviours, and daily writing projects, home reading and individualized word lists to achieve success.

Darlene Mary Johnson

Bertha Kennedy Catholic Community School, St. Albert
Grade 1, all subjects

Each September, Darlene Mary Johnson uses her students' interests to guide and modify her year's program. She stretches the children's minds with innovative, creative teaching strategies, creating subject-related crafts to develop fine motor skills and creativity, reading programs that capture the children's interest and closes each study theme with a party, such as the 100 Day party with games and learning activities all using the number 100. A successful mathematics program — her students scored up to 21 percent above the provincial average mathematics test scores — led to Ms. Johnson developing the department of education mathematics curriculum.

Shirley Jorgensen, Fred Fehlauer

**Blackgold Storefront School, Leduc,
Humanities, social sciences, career and technological studies
in an alternative school setting**

Shirley Jorgensen and Fred Fehlauer believe that every student has the ability to learn and every teacher has the responsibility to help students find the key to unlock that learning potential. Part of this team's "key" is a series of original and modified courses designed for an alternative school setting. Blackgold Storefront School offers self-paced, guided, independent study programs, teacher/tutors when needed, flexible enrolment and adaptations to student needs and interests. Ms. Jorgensen and Mr. Fehlauer have created 15 stand-alone courses and modified 120 career and technology studies strands. Courses include those on life skills, work experience and apprenticeship programs as well as academic courses.

Carolyn Lewis

**McNally High School, Edmonton
English, also Department Head of Student Activities**

A clear sense of order and expectations, regular feedback to students and parents and awareness of different learning styles set Carolyn Lewis apart as an outstanding teacher. She inspires students to success. Individualized reading programs and student-compiled portfolios of their work accommodate all learning styles and abilities and give confidence and motivate students to improve. High-risk students in basic classes form small groups to create board games or sample cookies and create promotional media presentations. They learn organization, teamwork, creativity, question and answer techniques and language skills, while having fun. The student retention rate in her classes is close to 100 percent with consistent academic success; average attendance rates are well above school average.

Janet Lutz

**Jessie Duncan School, Penhold
Grade 2/3 split, all subjects plus music program for whole school**

Even students identified as "at-risk" perform well in Janet Lutz's class. She sparks and enriches classroom teaching with musical adaptations of curriculum, theme-based learning and colourful, interesting

resources for all learning styles. Her revised phonics program includes catchy taped songs and printed text that children enjoy using. An animal care program teaches socially and behaviourally challenged children compassion and responsibility. Ms. Lutz also spearheaded the integration of technology into the school by setting up computers, training fellow teachers and reviewing software. Use of new technology in the school has tripled in the past five years.

Josef Martha

**Onaway Junior and Senior High School, Onaway
Grade 8, 10, 11, 12 physics, biology and science**

After moving from no knowledge or skills to extensive integration of technology into the classroom in three years, Josef Martha created and maintains ScienceMan! (<http://www.ScienceMan.com>), a professional development and technology Web site to share his experience, insights and successes with other teachers. Seeking to advance education for all students, the site offers educational resources, hardware and software reviews, professional development information and curriculum-matched links. His efforts have increased enrolment in physics (72 percent since 1996), increased the number of students attaining the Standard of Excellence in provincial final exams and improved comprehension of physics and science concepts as demonstrated in class testing.

Linda Melnyk

**Bishop Savaryn School, Edmonton
Resource facilitator, kindergarten to grade 6**

"Live the virtues we teach," says Linda Melnyk, who brings the teaching of strong character and virtue to life with school-wide projects such as Operation Christmas Child to collect gifts for overseas children, Friendship Corner to collect warm winter clothing, and Virtue of the Month. Recognizing that strong academic skills are necessary, too, she developed a gifted and enrichment program with performance incentives for participation, established a mentorship program between higher and lower grades, and modified an early literacy program that improves performance by two-and-a-half reading levels over three months.

Judith Snowdon

Isabelle Sellon School, Blairmore

Language arts, health, career and technology studies

Judith Snowdon knows that emotion drives motivation, which, in turn, drives learning. Using this knowledge, she taps into students' emotion and motivation with a number of interesting animal-related projects. Even reluctant students get interested and produce quality work when it's about animals! Ms. Snowdon initiated a technology-based GrassRoots project using survey skills and Internet networking to determine the quality of pet care in the school district, develops language arts and research projects about animals, and created a humane education curriculum as part of career and technology studies course.

British Columbia

Carolynn Elliot, Barbara Cooper

Fleetwood Park Secondary School, Surrey

Ms. Elliot: art, art careers, visual art Ms. Cooper: teacher librarian

Carolyn Elliot and Barbara Cooper practise what they teach: that teaching is shaped by collaboration, creativity, inclusion and flexibility. Together, they initiated ImagINations, an interdisciplinary school-wide First Nations focus week. Their objective was to develop awareness and appreciation of the various cultures, belief systems and life styles in the school community. A total of 50 presentations gave students of all grades from 80 classes direct interaction with aboriginal artists. Ms. Elliot and Ms. Cooper created a resource package for teachers to prepare for this event and share their experience through professional journals, workshops and presentations.

Brian Kerr

King George Secondary School, Vancouver

Information technology, computer business applications, data management, mathematics, social studies, English, physical education, marketing, career and personal planning

While advancing school use of technology (the SchoolNet Scouting Team selected King George's Web site as the SchoolNet Site of the week in January 2000), Brian Kerr teaches his students that "one is not born with the skill of leadership, but develops it through hard work and positive thought."

His students respond with innovative group and independent projects that develop Web pages, digital portfolios and on-line conferences. Mr. Kerr also collaborates with other teachers to broaden students' experience. A combined science and humanities trip to a space shuttle launch required business plans for necessary fund raising as well as academic preparation.

Trevor Kolkea

Central Middle School, Dawson Creek

English, science, mathematics, physical education, career and personal planning

Putting kids first and the subject second, Trevor Kolkea establishes a learning environment that brings out the best in students. For example, the school year book becomes an employability skills development project disguised as a "business." Students must meet deadlines and submit regular progress reports to their "boss," Mr. Kolkea. Agenda planners and reading *Seven Habits for Highly Effective Teens* at the end of each school day encourage students to self-evaluate their accomplishments and develop good work habits. His students achieve a 93 percent pass rate, with 35 percent on the honour roll.

Susan Murray

Gibsons Elementary, Gibsons

Resource, special education teacher, language arts, mathematics, science, social studies, personal planning

Susan Murray wants school to be an inviting, welcoming place full of learning and fun, even for reluctant students, special needs and school-phobic children. For the learning, she adapts curriculum materials as necessary and regularly provides teachers and special education teacher assistants with tests and updated material. For social skills and fun, Ms. Murray developed a peer tutoring program to pair gifted, learning-disabled or behaviour-disordered students with younger students, and established a recess and lunchtime behaviour program for students struggling with social skills. Parents, children (both tutors and "students") and teachers have found both programs highly successful.

Charlaine Shepherd

David Thompson Secondary School, Vancouver
French

Constantly trying to improve teaching materials and strategies and translate them into effective classroom practice, Charlaine Shepherd introduced on-line assignments, Internet research for projects and a Web site for the modern languages department. A number of Ms. Shepherd's initiatives have raised the profile of the department by encouraging students to improve their own language skills through tutoring younger or weaker students. Her emphasis on regular review, study schedules and self-evaluation gives students the tools for effective language learning. Ms. Shepherd's students consistently score highest in Vancouver and among the highest in the province on provincial exams, with a 100 percent pass rate.

Victor Vollrath, John Harper

Len Shepherd Secondary School, Surrey
Integrated Academic Program (Inter-Å) — grade 7 to 12
crosscurricular program of academic basics, environmental awareness, community involvement and fine arts

Victor Vollrath and John Harper believe that all students can learn. Their Inter-A program (built around two main courses: marine studies and training and forestry studies and training) uses theme-based, integrated projects done in cross-grade groups to implement individualized learning outcomes and development of leadership and team skills. The program engages all students regardless of level or ability. Co-op placements and tutoring are important elements of the program. Students submit résumés and attend interviews with employers for placement selection while tutors function as role models, developing a positive approach in tutees and in entire program.

Quebec

Cécile Brodeur

Collège Saint-Maurice, Saint-Hyacinthe

Art

For Cécile Brodeur, developing as an artist and developing as a human being require the same kinds of strengths. From the beginning of each year, she insists on and encourages the development of mutual respect and support in her classes. Students learn how to present themselves and their work in public, how to develop independence by accepting additional responsibility and, most important of all, how to make positive comments and constructive criticisms of their peers' work. To support the development of these personal and artistic skills, she has created an art program that motivates students by using a wide variety of techniques and that features new and interesting projects.

Julie Cyr

École Louis-Lafortune et des Cheminots, Delson

Grades 4 and 5, all subjects

Team work and fun are the foundation of Julie Cyr's teaching. She first sets out to create the right environment by rearranging desks to encourage teams to form, scheduling special periods for fun activities, and acquiring the latest technology for students to use in the classroom. She then teaches students not only what they need to learn but also strategies they can use to learn more completely and effectively. Ms. Cyr backs this up with a thorough feedback system under which she submits herself to an evaluation by her students and their parents.

Louise Ménard

École secondaire Les-Compagnons-de-Cartier, Sainte-Foy

French, geography, values

Innovate. In one word, that sums up Louise Ménard's philosophy of teaching. She keeps tabs on the latest developments in communications theory, psychology and pedagogy. She is aggressive about bringing new technology into the classroom and using telecommunications to publish student work for the larger community. She is always looking for ways to work with others, such as other teachers and parents. She is particularly enthusiastic about working with new teachers. She used this cooperative approach to especially good effect by playing an important leadership and research role in the development of PROTIC (<http://protic.net>), a special project to bring new technology and telecommunications into the classroom.

Ontario

Rita Ménard

École Marius-Barbeau, Ottawa

Grades 5 and 6, all subjects

A master of improvisation, Rita Ménard has a special gift for getting others to give a little more. She has consistently helped alienated and lonely students to interact better with their peers. She has inspired many students to take part and perform beyond their expectations in countless theatrical and musical productions. She has encouraged students from different cultural backgrounds to take pride in their identity and has convinced ethnic organizations and embassies to support her efforts. She has also convinced community leaders to support school activities, and local organizations and merchants to sponsor theatrical and musical productions.

About the Prime Minister's Awards for Teaching Excellence

The Prime Minister's Awards for Teaching Excellence recognize the efforts of outstanding teachers in all disciplines who provide students with the tools to become good citizens, to develop and thrive as individuals, and to contribute to Canada's growth, prosperity and well-being.

The education stakeholders from across Canada who make up the national and regional selection committees look for evidence that teachers have achieved outstanding results with students, inspired them to learn and continue learning, and equipped them with the skills and attitudes they need to succeed in our changing society and knowledge-based economy. Specifically, they recognize nominees who have excelled in the following areas:

- innovative and exemplary teaching practices
- student skills development
- student interest and participation
- student achievement and performance
- teacher commitment and leadership.

Teachers are eligible for two awards: the Certificate of Excellence and the Certificate of Achievement. All recipients receive a certificate and pin, along with a letter from the Prime Minister. Recipients' schools receive cash awards to be used for educational purposes, such as professional development or equipment, and a certificate recognizing their support and contribution to the teachers' achievement.

Fifteen Certificate of Excellence recipients travel to Ottawa for four days of tours, best practice sessions and a ceremony with the Prime Minister at which they receive their award certificate. Cabinet ministers or members of Parliament are invited to participate in local events to honour Certificate of Achievement recipients in their communities.

For more information about the program, call our hotline (1 800 575-9200), e-mail us (pmawards@ic.gc.ca) or visit our Web site (<http://www.pma-ppm.ca>).

Prime Minister's Awards for Teaching Excellence
Industry Canada
Room 713
155 Queen Street
Ottawa ON K1A 0H5

Corporate Sponsors

Bell Canada supports programs that promote educational excellence and help Canadians improve and learn in new ways, including the SchoolNet Network of Innovative Schools, the Chemistry and Physics Olympiad, the Canada-Wide Science Fair, the Media Awareness Network and the Youth Science Foundation. Bell also supports the Governor General's Award for Teaching Canadian History. In addition, Bell Canada supports research initiatives at universities throughout Canada, with the most significant investment being the Bell University Labs program — an integrated research and commercial network that links Bell professionals with university researchers. Bell's contribution covers endowed chairs, applied research projects, lab infrastructure and research support related to emerging wireline and wireless communications, e-commerce and information technology. In 2001, Bell contributed more than \$11.2 million to external research programs with universities and more than \$14 million to the field of education.

Canadian Learning Television is Canada's only national educational television specialty service. Our programming is not only challenging, informative and entertaining, but it is also connected to courses of study offered by universities and colleges across Canada. It is "watch and learn" at its best. Our programming covers a wide range of topics, all of which are designed to stimulate the grey cells and inform you about our ever-changing world. Areas of interest include careers, film and media studies, nature, science and the law. For more information, check out <http://www.accesslearning.com>.

In addition to **GE Canada's** many contributions to educational institutions, GE is a major supporter of science and technology programs such as the Youth Science Foundation, Scientists in School and Junior Achievement. GE's employee volunteer organization, Elfund, helps students through an education outreach program that includes workshops, contests, mentorships and assistance in areas such as career awareness and college selection. GE Canada has also recruited more than 100 interns from across Canada through the Career Edge National Youth Internship Program. As well, through the GE Fund, GE provides financial grants to hundreds of students in Canada and the United States through its Student and Teacher Achievement and Recognition (STAR) and Awards for Career Education (ACE) programs.

Kraft Canada has a tradition of supporting national programs that recognize learning and education among Canadians. Kraft actively funds a number of scholarships that encourage higher learning in the areas of food sciences and nutrition. Through the Nabisco Biscuit and Snacks Division, Kraft supports excellence in marketing research and teaching activities with an emphasis on Canadian content with the Nabisco Professorship in Marketing at the Richard Ivey School of Business. Kraft is also committed to promoting education and the love of reading to children throughout the country. The company strives to enhance children's love of reading through two uniquely Canadian programs: the prestigious Mr. Christie's Book Award, which recognizes excellence in children's literature, and the Mr. Christie's Smart Cookie Reading Program, an annual campaign that encourages reading among elementary school children.

Through its commitment to education, **Microsoft Canada** provides teachers with the tools and resources for a connected learning community. Through teacher training initiatives, including Intel Teach to the Future and the Microsoft Mentor Program, Microsoft has supported the training of more than one million teachers worldwide. Microsoft has also built relationships with universities, colleges and departments of education to provide tools and resources for educators, and grants in support of professional development initiatives. These valuable teacher training programs have provided Canadian teachers with access to software tutorials, shared lesson plan ideas, online seminars on key topics such as managing technology in the classroom, and links to Web resources. In addition to teacher training, Microsoft is committed to helping schools increase access to technology for every student and teacher and build strong technology infrastructures that support student learning and school administration.

The **RBC Foundation** believes in helping students make a smooth transition from the classroom to the workforce. RBC's major investments in this regard include Career Edge, designed to give recent graduates practical work experience, SHAD International, which introduces students to entrepreneurship, information technology and science and engineering, and Junior Achievement, which helps young people discover leadership and workforce readiness skills so they can achieve their highest potential. RBC also supports the Queen's University National Teaching Fellowships in Education and has provided in excess of \$50 million to educational organizations throughout Canada over the past 20 years.

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