

Education Research Roundup

CEA's Year-End Review

Introduction

Since 2003, [New and Noteworthy](#) has been a key component of CEA's website, bringing together education news, research, initiatives and events from across Canada and the world, and presenting them in an accessible and timely manner. These items in turn form the basis for our monthly newsletter, [Bulletin](#), which dates back to 1957 and assumed its current electronic form in 2004.

This first annual Education Research Roundup presents a year-end review of education research that has been featured on the CEA website and in *Bulletin*. It summarizes, by theme, notable reports, briefs, and studies, identifying trends and highlighting areas of consensus, tension, and discrepancy. We trust you will find it useful for your work, and encourage you to share it with colleagues.



(Please note that while a French translation of this document is available, the research cited herein is in English. In future editions, more resources and time will be allocated to ensure a better representation of the education research conducted and published in French.)

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Aboriginal Education

As the [National Council of Welfare](#) (2007) reported in [First Nations, Métis and Inuit Children and Youth: Time to Act](#) (PDF), little has improved for Aboriginal young people over the last decade, despite the dozens of reports that have emerged documenting the “appalling circumstances of Aboriginal children and youth in this country.” This was reinforced in 2008 by [research from the Institute for Research on Public Policy](#) (PDF) that found that Aboriginal children are the least-supported in Canada in terms of access to the basic elements of quality of life; at the same time, a report by [Michael Mendelson of the Caledon Institute of Social Policy](#) (PDF) noted that the gap in high school completion between on-reserve Aboriginal 20- to 24-year-olds and their non-Aboriginal peers actually increased by five points during the last decade, according to census data. But as the National Council of Welfare also pointed out,

“There are programs and policies that are working. And many more that could work if only other Canadians and Canadian governments would do the right and smart thing by supporting and investing in them.”

In the recent [Closing the Aboriginal/Non-Aboriginal Education Gaps](#) (PDF) from the [C.D. Howe Institute](#), author John Richards looks to the agreement between the federal government, B.C.'s provincial government, and the [BC First Nations Education Steering Committee](#) (FNESC) as a “promising precedent for professionalizing on-reserve school administration.” Richards’ proposals are similar to Michael Mendelson’s (above), who proposes a new legal framework to provide for First Nations the equivalent of the school consolidation movement of rural Canada in the early 20th century. Mendelson describes a new federal statute which would enable reserves to join together to form First Nations Educational Authorities and establish regional First Nations equivalents of education departments under First Nations control, while setting out the mutual responsibilities for education of both First Nations and the federal government.

Following up on the groundbreaking work done by the [Canadian Council on Learning](#)’s (CCL) Aboriginal Learning Knowledge Centre in [redefining how success is measured in First Nations, Inuit and Métis Learning](#), CCL’s president and CEO Paul Cappon discussed, in a May 2008 issue of [Policy Options](#), the feasibility of a national framework for measuring progress in Aboriginal learning across Canada. Based on the existing holistic lifelong learning models reflecting First Nations, Inuit and Métis perspectives on learning, the ultimate goal of this work is the creation of an Aboriginal Composite Learning Index to measure progress over time.

Accountability

As Lorna Earl notes in [Assessment and Accountability in Education: Improvement or Surveillance](#) (PDF), external tests and examinations have always existed in schools, though their role has expanded and changed significantly over the last forty years. In addition to most Canadian jurisdictions having their own standardized assessments, most Canadian provinces and territories now participate in the [Pan-Canadian Assessment Program](#) (PCAP, formerly the School Achievement Indicators Program) and the [Programme for International Student Assessment](#) (PISA), with some also participating in the [Trends in International Mathematics and Science Study](#) (TIMSS) and the Progress in International Reading Literacy Study (PIRLS).



A recent development in the field of education accountability is the move towards greater use of “value-added” data, which measure the progress of students compared to an average drawn from other students with similar prior achievement, in an effort to represent the comparative “value added” by the child’s educational experience. Going one step further, “contextualized value-added” (CVA) measures combined prior achievement data with information about students' socio-economic status, gender and so on in an attempt to produce an even more accurate reflection of the impact of education on learning. Despite recent adoption in the U.K., a [report from the Office for Standards in Education, Children's Services and Skills](#) (Ofsted) cautioned that the CVA is subject to important limitations. While the measure can provide additional insight, report author David Jesson warns against attaching any meaning to an absolute CVA value or using it to rank schools. He also suggests that “mis-using the data to predict future performance could depress expectations of groups of pupils that have performed less well in previous years.”

In spite of such warnings and widespread opposition from teachers’ federations, the [Fraser Institute](#) continues to publish school rankings, arguing that they provide useful information for parents and the general public. Aiming to provide a less distorting school assessment and ranking tool, Professor David Johnson of Wilfrid Laurier University has been combining student background information with assessment scores from [British Columbia](#) (PDF) and [Ontario](#) in reports for the C.D. Howe Institute.

Though the use of such measures has been growing in Canada, they have received much broader—though not always less controversial—adoption in the United States, where some states, such as Louisiana and Tennessee, currently implement or permit

the use of value added data for teacher evaluation or training, while a handful of others are preparing for the eventual introduction of such systems.

The high-stakes accountability era ushered by the U.S. federal [No Child Left Behind](#) (NCLB) act has had many vocal opponents and proponents since its inception, and has received mixed reviews from researchers. [Avoidable Losses: High-Stakes Accountability and the Dropout Crisis](#) from the [Education Policy Analysis Archives](#) journal used longitudinal data and ethnographic analysis to show that the Texas accountability system, a model for NCLB, has been directly contributing to the state's high dropout rates for African-American and Latino youth. A [study by the United States Department of Education's own Institute of Education Sciences](#) found that NCLB's [Reading First program](#) was not improving reading comprehension in grades 1-3, and also revealed that those sites where Reading First has been in practice longer generally experienced negative impacts on students' reading comprehension.

Some of the criticisms of NCLB in the United States reflect common concerns with standards-based accountability: research from the [Rand Corporation](#) ([Standards-Based Accountability Under No Child Left Behind](#)), the [Center on Education Policy](#) ([Instructional Time in Elementary Schools: A Closer Look at Changes for Specific Subjects](#)), and the [Education Policy Research Unit](#) (['Restoring Value' to the High School Diploma](#) (PDF)) all argue that aspects of NCLB may be contributing to moderate or significant narrowing of the curriculum, and also to declines in staff morale.

Civic Engagement and Citizenship

Though figures from the 2008 Canadian federal election have not yet been released, recent experience gives cause to suspect that voter turnout among those aged 18 to 21 will be below the already landmark figure 59.1%. Though turnout amongst this group increased from 25% in 2000 to 38% in 2004, and to 44% in 2006, concern over youth disengagement from politics persists. Such concern is not unwarranted given findings reported in [Elections Canada's Explaining the Turnout Decline in Canadian Federal Elections](#) that show 18- to 20-year-old non-voters are the most likely of all age groups, except 25- to 29-year-olds, to cite lack of interest as a reason for not voting.

There is a significant debate over the reasons for this phenomenon. Following up on a 1993 report that found college students considered politics "irrelevant" to their lives and saw little purpose in actively participating in it, the American [Center for Information & Research on Civic Learning & Engagement](#) (CIRCLE) reported in [Millennials Talk Politics: A Study of College Student Civic Engagement](#) that students in the United States are hungry for political conversation that is authentic, involves diverse views and is free of manipulation and "spin."



This research from CIRCLE supports the conclusion drawn in the 2007 [Canadian Policy Research Network's \(CPRN\) Lost in Translation: \(Mis\)Understanding Youth Engagement Synthesis Report](#): "today's young people are not disengaged from associational and small "p" political life but are increasingly disenchanted with formal political institutions and practices." Youth

have less formal political knowledge, are less likely to vote, and have less understanding of how government works, despite having more formal education than their elders. They are "turned off by political parties and partisan politics, dislike hierarchical approaches to organization and mobilization, and don't think that formal politics is an effective route to affect change."

At the same time, young people are more likely to participate in political demonstrations and to volunteer. They frequently alter their purchasing habits

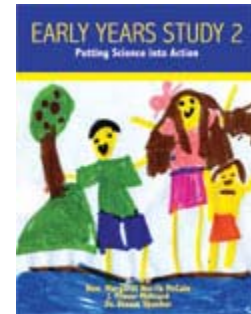
From *Education Canada*
In [What Kind of Citizen? Democratic Dialogues in Education](#) (PDF), Joel Westheimer questions whether current education reforms are limiting the ways that teachers can develop the kinds of attitudes, skills, knowledge and habits necessary for preparing students to become active and engaged public citizens.

to reflect ethical choices, they use online networks to mobilize socially and politically, and they are more likely to belong to a group or organization. A 2008 [Ipsos survey](#) found that 14- to 18-year-olds spend an average of 5% of their incomes on international donations—proportionally more than the [0.33% of Gross National Income that the Canadian governments spends on Official Development Assistance \(ODA\)](#).

As the above CPRN study puts it, this research paints a picture in which youth are not disconnected from politics, but rather political institutions, practices and culture are disconnected from youth.

Early Childhood Education and Care (ECEC)

The evidence demonstrating the individual and social benefits of early childhood education and care programs is well-established and expanding. Not surprisingly, early childhood education and care continues to be major focus for advocacy groups and researchers in Canada and throughout the world. But as Margaret McCain, Fraser Mustard and Dr. Stuart Shanker affirm in the [second report of their Early Years Study](#):



We are still a long way... from the sorts of universally accessible high quality programs that are needed. As important as it is to continue our scientific investigations, the most important challenge that we face today is to muster the political will and effort necessary to translate what we already know about early brain development into action.

In an effort to effect this translation and persuade decision-makers, advocates and researchers are increasingly relying on “social return on investment” studies that attempt to characterize the value of ECEC in familiar economic terms. Using economic models to simulate the impact of large-scale, ongoing support for proven programs for children, authors of [two studies from the U.S.](#) found that such measures would increase job growth and earnings, as well as boost future GDP and government revenues.

A [research and policy brief](#) (PDF) from the American [National Institute for Early Education Research](#) (NIEER) took stock of the research on short- and long-term impacts of preschool education on children’s learning and development, and found that “well-designed preschool education programs produce long-term improvements in school success, including higher achievement test scores, lower rates of grade repetition and special education, and higher educational attainment.” While this comes as no surprise, the brief also cautioned that “increasing child care subsidies under current federal and state policies is particularly unlikely to produce any meaningful improvements in children’s learning and development. Given the poor quality of much child care, it might instead produce mild negative consequences.”

This echoes the findings from some research that suggests a link between participation in early care and education and a rise in challenging behaviours. However a [policy brief also from the NIEER argues](#) that such connections are merely representative of lower-quality programs, and participation in “high-quality preschool education that includes an emphasis on children’s social development can reduce rates of

challenging behaviours and serve as a long-term protective factor for children at risk for developing challenging behaviours.”

As recent Canadian work from the [Institute for Research on Public Policy](#) (IRPP) shows, the potential for negative outcomes from lower-quality early care and education programs should raise red flags for Canadians. [New Evidence about Child Care in Canada: Use, Patterns, Affordability, and Quality](#) (PDF) finds that while a large majority of employed mothers make use of childcare services, “much of Canada’s existing child care services fail to provide adequate stimulation.” Outside of Québec, average annual spending on child care ranges from \$4,500 to \$6,900 (for part-time and full-time employed mothers, respectively), yet high-quality, regulated child care can cost \$9,000 or more.

There is no shortage of research on what high-quality child care systems look like. The [Organization for Economic Cooperation and Development’s](#) (OECD) [Thematic Review of Early Childhood Education and Care Policy 1998 – 2006](#) involved 20 countries, including Canada, and identified a number of principles for successful ECEC:

- A strong and equal partnership with the education system
- A universal approach to access
- A stable framework and long-term agenda for research and evaluation
- Strong government investment, regulation and supervision, in the absence of which children's services tend to remain disorganised and of low quality

Yet since the [OECD’s 2004 review of Canada](#) (PDF), “progress toward the kind of high quality, universal, blended ECEC suggested by the OECD has been,” [in the words of Martha Friendly](#) of the [Childcare Resource and Research Unit](#), “limited.” Rather than the OECD’s suggested minimum of 1% of GDP going towards ECEC, Canada currently spends about 0.3%. As argued by [IRPP author Gillian Doherty](#) (PDF), from whom this figure is taken, the \$10 billion CDN that it would take to build a high-quality ECEC system for children under six should be seen not as a cost, but as a high social return investment that Canada cannot afford to pass over.

Inclusion and Equity

A number of studies this year focused on equal access to education by Canadian immigrants. In general, when compared to other countries, Canada does a good job of providing equality of educational opportunity to immigrants and native-born Canadians.

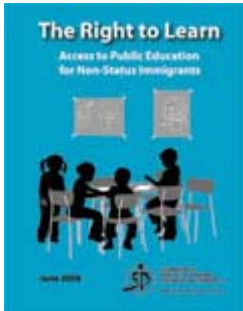
Research examining immigrants' educational disadvantage across countries generally focuses on average differences in educational outcomes between immigrants and those born in a country, thereby disguising the fact that immigrants are a highly heterogeneous group. The aim of [Inequality of Learning amongst Immigrant Children in Industrialised Countries](#) (PDF) from the German [Institute for the Study of Labor](#) is to examine educational inequalities *among* immigrant groups in eight high immigration countries: Australia, Canada, Germany, New Zealand, Sweden, Switzerland, UK and USA. Results indicate that, for almost all countries, there is a larger gap between high- and low-achievers among immigrants than for natives. In general, Canadian first- and second-generation immigrant youth performed better on international assessments than immigrant youth in the other countries examined, and also showed smaller gaps between high- and low-achievers.

Mythili Rajiva argues in [Exploring the Differences between Immigrant Parents and their Canadian-Born Children](#) (PDF) that generational differences are key differentiating factors in visible minority experiences of integration in Canadian society. Exemplifying the heterogeneity of immigrant experiences within Canadian education systems, Statistics Canada's [University Completion Rates Among Children of Immigrants](#) reported university completion rates ranging from over 65% for youth of immigrant parents from China and India to 24% among second-generation German and Central and South American youth. By way of comparison, 28% of children of Canadian-born parents complete university by the time they are between 25- and 34-years-old.

School systems are making progress towards adapting to their changing demographic realities, as evidenced by the [awarding of the 2008 Carl Bertelsmann Prize to the Toronto District School Board](#) (TDSB), honouring "exemplary work in fostering integration and promoting equal opportunity in education." But despite both the TDSB and the Toronto Catholic DSB recently having adopted policies to facilitate access to

From *Education Canada*
Gordon Porter, in [Making Canadian Schools Inclusive: A Call to Action](#) (PDF), argues that we need a vision for public education that embraces inclusion in meaningful and practical ways that make it a reality in every community.

education for students without immigrant status, a [report by the Community Social Planning Council of Toronto](#) (PDF) suggests that there is still work to be done. The study found inconsistencies regarding enrolment procedures and other protocols in Toronto schools, and discovered that some students do indeed still face barriers to education because of their immigrant status.



Another focus of inclusion and equity research is on students with disabilities. Survey data showed that about 36,600 children with disabilities (roughly one-quarter of all children with disabilities who were attending school) were not receiving education deemed adequate by their parents. Furthermore, [data from Statistics Canada's Participation and Activity Limitation Survey](#) looked at the educational experiences of children with disabilities, and found that the prevalence of disability among children has increased during the past five years. In 2006, roughly 4.6% of Canadian children aged 5 to 14 had one or more disabilities, up from 4.0% in 2001.

In an effort to improve test accessibility for all students, not just those with an identified learning disability, researchers from Vanderbilt University in the U.S. began refining and field-testing a series of guidelines aimed at improving the accessibility of tests without compromising their validity. The [Test Accessibility and Modification Inventory](#) (PDF), as it is being called, is intended to help test creators develop questions that do not unintentionally introduce extraneous information or cognitive load, and are more inclusive of English-language learners and students with disabilities. Such efforts are manifestations the trends analyzed in [Reforming Education: Is Inclusion in Standardization Possible?](#) (PDF) which examines the implementation of two key North American education reform movements of the recent years: inclusion, and large-scale assessment. Author Rosalyn Adamowycz examines how the large-scale assessment movement has incorporated inclusive practices, and presents existing examples that attempt to facilitate inclusive processes in large-scale assessment practices.

Information and Communications Technology

Whether they are called “millennials” or “digital natives,” the generation of young people in Canada’s K-12 system today inhabit a world in which information and communications technologies are omnipresent. And though there is a growing body of research on the use of technology to promote deep learning and student engagement, the adoption of technology by education systems has not kept pace with the rate at which students have incorporated it into their social lives and their own learning.

[Survey data released this year by Statistics Canada](#) confirmed the widespread perception that youth are prolific Internet users: 97% of 16- and 17-year-olds have used the Internet, compared with 73% of the general population. 70% of these youth have used the Internet for more than five years, while 94% use it for school work. But in contrast to this image of Internet-savvy teenagers, research from both Canada and the U.K. suggested that the high level of Internet usage may be primarily devoted to lower-order activities. [Information Behaviour of the Researcher of the Future](#), from University College London, suggested that the idea of a ‘Google Generation’ may be a myth, and found that although young people demonstrate an ease and familiarity with computers, they rely on the most basic search tools and do not possess the critical and analytical skills to assess the information that they find on the web. Likewise, findings from an Ipsos Reid study called [Inter@ctive Teens: The Impact of the Internet on Canada’s Next Generation](#) cast further doubt on this stereotype, finding that teens report lower comfort levels with certain kinds of technology than adults, and that their time online is spent on a narrow range of activities and websites.

The proliferation of new communications technologies brings both opportunities and risks. The [British Educational Communications and Technology Agency](#) (Becta) published a series of [reports from its research on the use and benefits of Web 2.0 technologies](#), focusing on youth aged 11 to 16, which found that while young people are “prolific users of Web 2.0 technologies in their leisure,” the use of such technologies for formal education was limited. Nevertheless, benefits reported by early-adopter schools and teachers include:

- more opportunities for student expression through non-traditional media (e.g. video)
- greater online discussion amongst students outside of school

From *Education Canada* [Bullying Gets Digital Shot-in-the-Arm](#) (PDF), by Bernie Froese-Germain, explains why students’ use of social networking websites for the purpose of cyberbullying constitutes an expanding and very real form of school violence.

- greater sense of ownership and achievement for work published online can lead to an improvement in the quality of work

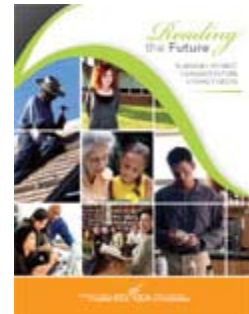
At the same time, the social networking sites that exemplify Web 2.0 also provide new avenues for bullying, as was evidenced in an incident this year involving the suicide of a 13-year-old Missouri girl following abusive messages sent via MySpace. A [national poll commissioned by the Canadian Teachers' Federation](#) (CTF) discovered that 34% of Canadians surveyed knew of students who had been the victims of cyberbullying, while 20% were aware of teachers who had been cyberbullied. In response to the issue, the CTF has published a [Cyberconduct and Cyberbullying Policy](#) (PDF), a [set of tips for teachers](#), and a [brief to Canada's Department of Justice](#) (PDF).

Literacy

Though as a nation Canadian youth rank highly on international literacy assessments, this high level of achievement is not evenly distributed across the country or across all socioeconomic groups. Yet [Acquiring Literacy Skills: A Comparison of Provincial and International Results from PISA and IALSS](#) (PDF) notes that when literacy scores from international assessments are adjusted to take student socio-economic status into account, the provincial achievement gaps are significantly reduced. This study also reported that despite “provincial variation in school contexts (such as school size, admission criteria, and number and types of student assessments) [being] generally more pronounced than it is on student intake characteristics... student socio-demographic and academic performance factors are decidedly stronger determinants of literacy attainment than are school-level factors.”

Today, literacy is a basic pre-requisite for full participation in civic life and the workplace. And as the [United Nations Literacy Decade: Progress Report for Canada 2004-2006](#) (PDF) from the [Council of Ministers of Education, Canada](#) (CMEC) and [UNESCO](#) conclude, while Canada has “much reason for pride in the quality and quantity of literacy programs available across the country... there is also an ongoing challenge in addressing the large percentage of the population still needing better literacy skills for their everyday lives.”

This message is reflected in CCL’s [Reading the Future: Planning to Meet Canada's Future Literacy Needs](#), a follow-up to their [2007 State of Learning in Canada](#), which drew attention to the fact that 42% of working-age adults in Canada had low literacy skills. In this latest report, the authors project that there will be little to no progress in our population’s level of literacy in the near future. By 2031, the report finds, 47% of adults aged 16 and over—totalling more than 15 million people—will continue to have literacy skills below International Adult Literacy and Skills Survey Level 3, or the internationally-accepted level of literacy required to cope in a modern society. This conclusion may seem to be at odds with the traditionally high performance of Canadian students on international literacy assessments and the growing quantity and quality of post-secondary education in Canada. In spite of these factors, the study shows how a mixture of demographic shifts, immigration rates, and skill loss with age will combine to produce the projected effect.



Post-Secondary Education and Youth Transitions

When set in an international context, Canadians measure up well on participation in post-secondary education (PSE). Though the PSE participation rate for 20 to 24-year-olds hovers just below the OECD mean of 41%, the OECD's [2007 Education at a Glance](#) report ranked Canada second in its comparison of member countries' overall PSE attainment. But despite our strong performance on participation measures, there is some concern expressed in the research literature over the lack of comprehensive data on PSE in Canada, and the fragmented relationships among provincial and territorial PSE systems.

In [Post-Secondary Education in Canada: Strategies for Success](#), the Canadian Council on Learning articulated a strong call for a national PSE data strategy and progress benchmarks—a proposal that received backing from University and College Presidents and other leaders across the country. Meanwhile, the Council of Ministers of Education, Canada (CMEC) [working group on credit transfer issued an update](#) (PDF) on jurisdictional progress towards a pan-Canadian system of credit transfer that would improve mobility between post-secondary sectors and clarify student pathways. However, according to a [report commissioned by CCL](#) (PDF):

“The conditions for a major advance in increased credit transferability do not appear to be in place currently in Canada. There does not appear to be a strong desire among some of the most important educational stakeholders—universities, student groups and provincial governments—to see a national credit transfer system in Canada.”

In addition to student mobility and credit transfer, 2008 saw a continuation in the high level of research interest in youth transitions and pathways. Canadian youth, like youth in most post-industrial countries today, are following pathways to the workplace, tertiary education, and adulthood that differ significantly from those taken by their parents and grandparents, often [charting a “zigzag” course between school and work](#) as they establish themselves. Young people are graduating high school and pursuing PSE in greater numbers; they are living at home longer, and delaying marriage and parenthood; and the jobs available to them are generally less stable and lower paying.

But in spite of the many and circuitous pathways towards university and college graduation, [research conducted by the Measuring the Effectiveness of Student Aid](#) (MESA, an initiative of the [Canada Millennium Scholarship Foundation](#)) project allayed some fears about low PSE retention rates when it showed that while only half

of all students graduate from their initial program within five years of starting PSE, total persistence rates after five years are 82% at the college level and nearly 90% for university students. In fact, though the educational pathways youth take may be diverse, they are not random: background factors play a strong influencing role on both the route taken and the associated outcomes. Statistics Canada's [Taking Time Off Between High School and Postsecondary Education: Determinants and Early Labour Market Outcomes](#) found that having good marks in high school or having highly educated parents was closely associated with following a pathway that led directly to PSE, without a gap. And though taking time off between high school and college tended not to have any effect on subsequent earnings, the research did find that university graduates who had not delayed the start of the studies earned considerably more per week than university graduates who had.

In response to the widely acknowledged shifts in youth transitions, researchers are turning their attention to policies and programs designed to reflect the changing reality and assist young people through these years. CCL's [Making Bridges Visible](#) (PDF) documents "innovative, effective and promising practices, programs and policies in school to work transitions," with particular focus on youth who have left high school without graduating or are at-risk of doing so; entered the labour market after high school; made PSE program and level changes; or left PSE by graduating or dropping out.

School Safety

School safety has increasingly become a concern in response to several serious and highly publicized incidents in Canadian schools, and also in response to the increasing incidence of cyberbullying.

The Canadian Council on Learning's (CCL) [Bullying in Canada: How Intimidation Affects Learning](#) reviews and synthesizes research on bullying showing that it undermines safe learning environments and has been linked to a number of "undesirable outcomes, including delinquency, substance and alcohol abuse, and psychosocial illness (such as low self-esteem, social withdrawal, anxiety, insecurity, patterns of aggressive reaction)—all of which carry steep social and economic costs to society." On an international comparison of 35 countries, Canada had the 9th highest rate of bullying. CCL's own research revealed that 38% of adult males and 30% of adult females reported having experienced occasional or frequent bullying during their school years.

A [study by the Centre for Addiction and Mental Health \(CAMH\) in Toronto on sexual harassment and bullying](#) in Southwestern Ontario schools discovered that 16% of girls and 32% of boys reported being physically harmed (on or off school property), while 10% of girls and 25% of boys admitted to being the perpetrators of such violence. And in a trend that has emerged with the widespread use of the web and social networking sites, 12% of boys and 14% of girls reported being harassed over the Internet.

In 2008, the Toronto District School Board (TDSB) released its [Final Report on School Safety](#) (the "Falconer Report") from the School Community Safety Advisory Panel, which was appointed following the death of a 15-year-old student at a secondary school. The report contains more than 100 recommendations to help improve the safety and enhance the culture at the TDSB. While significant media attention was given to some of the more controversial measures, including mandatory student ID cards and random locker searches, the report concludes that:

"restoring health system-wide to TDSB schools is not an exercise to be dominated by metal detectors and other security/enforcement measures that consume sparse resources and do little to nurture, re-engage and finally teach our marginalized youth".

The issue of youth violence received further attention in Ontario's [Review of the Roots of Youth Violence](#), established in 2007 to help identify and analyze the underlying

causes contributing to youth violence and provide recommendations for Ontario to move forward. The Honourable R. Roy McMurtry, Q.C., and the Honourable Dr. Alvin Curling were appointed to chair the review, which identified five youth risk factors for involvement in serious violence:



1. a deep sense of alienation and low self-esteem
2. little empathy for others and suffer from impulsivity
3. belief that they are oppressed, held down, unfairly treated and neither belong to nor have a stake in the broader society
4. belief that they have no way to be heard through other channels
5. no sense of hope

Beyond these risk factors, the review also identified a number of “roots of violence” that lead to the risk factors, including poverty, racism, community design, and issues in the education system.

Social Impacts and Outcomes of Education

Education has long been recognized as a determinant of health, inclusion, citizenship, income, food security, housing, and other social goods. In particular, the relationship between education and health has been a main concern for researchers, and was the subject of reports from both the [World Health Organization \(WHO\) Commission on Social Determinants of Health](#) and the [Canadian Public Health Association \(CPHA\)'s Expert Panel on Health Literacy](#) (PDF). Of the three overarching recommendations proposed in the WHO report, the first calls for an improvement in daily living conditions, with “major emphasis on early child development and education for girls and boys.” And though the link between literacy, as a broader construct, and health literacy in particular is not comprehensively understood, the CPHA report found the evidence of a relationship to be compelling enough that it recommended improving the literacy and health literacy skills of Canadians, and integrating health literacy into K-12 and adult education curricula.

The variety of social benefits generated by education received additional support from a [literature review](#) commissioned by a group of Santa Monica community and education leaders. Conducted by the [Rand Corporation](#), the review summarized existing policy studies on the impact of educational quality on the broader community. Using only empirical studies with applications to public and private K-12 education, the authors found that educational quality was related to:

- o increased individual employment and mental health
- o increases in local community property values and decreases in crime
- o increases in economic productivity, as well as decreased rates of participation in social welfare programs and lower costs when participating

A summary report from the [Centre for Research on the Wider Benefits of Learning](#) in the U.K., entitled [The Social and Personal Benefits of Learning](#) (PDF), further documented the role of education as a prime contributor to positive social outcomes. It noted that in addition to the well-known benefits to health, crime reduction, and parenting, education contributes to greater social cohesion by reducing racial intolerance, promoting trust of other individuals and government, and improving civic co-operation.

Given education’s powerful and manifold social effects, it is not surprising that the way in which students experience education could be linked to both positive and negative outcomes. Summarizing work published in the American [Educational Forum](#) by Joan Beswick, Elizabeth Sloat and Doug Willms, [Four Educational Myths that Stymie Social Justice](#) (PDF) presents four persistent myths that the authors argue have a negative

impact on students' early literacy development, and ultimately on societal aspirations to be more inclusive and equitable. Contrary to the myths,

1. Literacy learning trajectories **are not** fixed at school-entry and are alterable
2. Grade retention **does not** ultimately result in improved achievement
3. Early identification and prevention of literacy problems **does not** stigmatize students
4. Schools **can** reverse developmental delays or cases of severe deprivation