

2001 PAN-CANADIAN
EDUCATION RESEARCH AGENDA
SYMPOSIUM

**Teacher Education /
Educator Training:
Current Trends and
Future Directions**

**Symposium
Report**



Statistics
Canada

Statistique
Canada



Council of Ministers
of Education, Canada

Conseil des ministres
de l'Éducation (Canada)

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SYMPOSIUM**

A hand in a dark sweater is writing on a chalkboard. The chalkboard has some faint, illegible white markings on it.

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INTRODUCTION

History of the Pan-Canadian Education Research Agenda

The Canadian Education Statistics Council (CESC), a partnership between Statistics Canada and the Council of Ministers of Education, Canada (CMEC), initiated the Pan-Canadian Education Research Agenda (PCERA) in 1997 to bring interprovincial/territorial research issues that are important to ministers of education and training to the attention of the research community in Canada, and to promote open discussion of these issues with different partners in education.

Through consultations with the ministries and departments of education and training, seven research themes were developed to guide the work of the PCERA. They are:

- ◆ Learning Outcomes
- ◆ Teacher Education/Educator Training
- ◆ Special-Needs Programming
- ◆ Technology
- ◆ Transitions
- ◆ Diversity and Equity
- ◆ Citizenship and Social Cohesion

These priority themes were further defined through a consultation process involving the ministries and departments of education and training, as well as through the work of educational researchers and the PCERA Advisory Committee.

PCERA Symposia

1999 PCERA Symposium

The first PCERA Symposium, held in Ottawa in February 1999, examined the seven PCERA priority research themes. CESC organized the symposium to promote informed dialogue among different partners in education on the direction that research on the priority themes might take, and to explore the possibilities for realizing the agenda. Twelve research papers were commissioned that both reviewed the current state of research and proposed research questions on the priority themes.

2000 PCERA Symposium

“Children and Youth at Risk”

The topic for research featured in the second PCERA Symposium, held in Ottawa in April 2000, was “Children and Youth at Risk.” In addition to serving as a forum for various stakeholders in education, the symposium sought to expand participants’ understanding of the “at-risk” concept, to share and disseminate current research findings, and to promote new research in this area.

Ten research papers were commissioned from experts on various aspects of children and youth at risk, including school-linked services, student loans, students with exceptional needs,

Outcomes from the 1999 PCERA Symposium

The 1999 PCERA Symposium led to the

- ◆ development of a deeper understanding of the seven priority PCERA research themes
- ◆ identification of gaps in the dissemination of education research results
- ◆ identification of gaps in pan-Canadian education research data
- ◆ identification of the need for linkages between researchers, policy-makers, and practitioners

Conclusions from the 2000 PCERA Symposium on Children and Youth at Risk

- ◆ Risk is a characteristic of situations, not individuals.
- ◆ Schools are part of both the problem and the solution.
- ◆ Schools cannot single-handedly solve all social problems.
- ◆ Risk prevention is critical yet proves to be difficult to put into place.
- ◆ Schools will not be the primary places where risk prevention takes place.

PCERA Symposia Commissioned research papers and the proceedings of PCERA symposia are available on the CMEC Web site at www.cmec.ca under Research and Statistics.



INTRODUCTION *continued*

and culturally diverse groups. A summary of the proceedings, including a synthesis written by Robert Crocker of Memorial University, is documented in *Children and Youth at Risk: Symposium Report*.

2001 PCERA Symposium “Teacher Education/Educator Training: Current Trends and Future Directions”

CESC held the third PCERA Symposium in conjunction with the Canadian Society for the Study of Education (CSSE) and the Canadian Society for the Study of Higher Education (CSSHE) at Laval University in Quebec City on May 22 and 23 during the annual Congress of the Social Sciences and Humanities.

2001 PCERA Symposium Sessions:

SESSION 1:

**Role of Teachers/Teacher Education;
Role of Educators/Educator Training**

SESSION 2:

**Teacher/Educator
Supply and Demand**

SESSION 3:

**Teacher/Educator Professional
Development**

SESSION 4:

Indicators of Success

SESSION 5:

Leadership

PANEL SESSION:

“From Theory into Practice”

Teacher education/educator training is a high priority issue for ministries/departments of education and training and is a research area of importance as it converges with a large number of educational issues. More specifically, this topic is currently receiving policy attention — in Canada and internationally — with respect to teacher/educator supply and demand, and related issues such as retention of teachers/educators, re-skilling of teachers, and teacher certification requirements. Research on these issues provides relevant and urgently needed information on education and labour market analysis to policy-makers.

Fifteen research groups from both the academic and government sectors presented their research findings at the symposium. Issues that were addressed by the researchers included teacher/educator supply and demand, the role of teacher education/educator training, teacher/educator professional development, indicators of success, and leadership.

This year’s symposium was attended by over ninety participants, including government representatives, educational organization representatives, university deans of education, practitioners, and researchers. The event provided a forum for participants to examine issues related to teacher education/educator training, to discuss the capacity for educational research in Canada, and to explore possibilities of collaboration on future research projects.

2001 PCERA Symposium Report

This report documents the proceedings of the symposium and includes information on the commissioned research, research presentations, research authors, and the discussions that took place at the symposium. An analysis of the themes and policy issues raised at this year’s symposium is available in a separate document entitled *Teacher Education in a Knowledge-based Economy: Centering a critical conversation*, written by Dr. Yvonne Hébert of the University of Calgary.

PCERA Symposia Commissioned research papers and the proceedings of PCERA symposia are available on the CMEC Web site at www.cmec.ca under Research and Statistics.

HIGHLIGHTS: 2001 PCERA SYMPOSIUM ON TEACHER EDUCATION/EDUCATOR TRAINING

- ◆ Fifteen research papers were commissioned from experts throughout Canada on topics related to teacher education and educator training. The papers provided the basis of the symposium, and the presentations were organized into five different sessions.
- ◆ More than ninety participants attended the two-day symposium at Laval University in Quebec City. Participants included ministry and department of education representatives, policy-makers, researchers, and practitioners.
- ◆ The keynote presentation for this year's symposium was given by the Honourable Dr. Lyle Oberg, Alberta Minister of Learning.
- ◆ Miles Corak, Director of Family and Labour Studies, Statistics Canada, Paul Cappon, Director General, CMEC, and Mr. Yvan Dussault, Assistant Deputy Minister (Planning), Quebec Ministry of Education, welcomed the assembly to the CESC-sponsored symposium. Miles Corak acted as Chair on the first day of the symposium, and Paul Cappon acted as Chair on the second day.
- ◆ For the first time, the PCERA Symposium was held in conjunction with the Canadian Society for the Study of Education (CSSE) and the Canadian Society for the Study of Higher Education (CSSHE) during the 70th annual Congress of the Social Sciences and Humanities.
- ◆ Group discussions and question periods followed the presentations by commissioned authors and respondents.
- ◆ The panel discussion at the end of the second day of the symposium provided an opportunity for representatives of education stakeholder groups to express their views on the research presented as well as to provide suggestions for putting the theories presented on teacher education/educator training into practice.



WELCOME SPEECHES

Mr. Yvan Dussault, Assistant Deputy Minister, Planning, Ministry of Education, Quebec

Mr. Yvan Dussault welcomed the symposium participants to the event and to the Province of Quebec. After discussing the theme of this year's symposium, Mr. Dussault proceeded to speak about the status of teacher education/educator training in his province. Mr. Dussault presented a list of challenges that had

been met as well as choices and accomplishments that had been made; he also discussed the challenges that remain. Some of these challenges include providing education students with more practical experience prior to teaching, developing and fostering communications between universities and schools, integrating technology into curriculum, and recruiting more teachers to reduce the current shortage of second language and science teachers.

Mr. Dussault also spoke of the recent review of the teaching system in Quebec. Examples of changes that resulted from the review included the abolishment of the 2-year probation period for new teachers, increased collaboration between professors and education students during their practical experiences, and a review of the curriculum being taught to university students in terms of pedagogical approaches to special education and intercultural education.

Mr. Dussault noted that a priority issue for education research in Quebec is how to develop methods of comparing schools fairly. He remarked that comparing schools and student results by economic milieu is a simple and limited approach.

Another priority research issue in Quebec is how to help children in poorer areas succeed in their studies. Quebec has invested resources toward answering this question, and toward the development of indicators of success.

Mr. Dussault spoke of the Youth Summit (Sommet de la Jeunesse) held in Quebec in 2000, at which the need for more education research in Quebec was identified. The Quebec Ministry of Education intends to issue requests for proposals (RFP) on the research themes identified at the Youth Summit. The commissioned research will address issues facing students from preschool to university, as well as youth who have dropped out of school. In particular, the research will be used to find ways to help students with special needs, children with learning disabilities, adolescent mothers, young Aborigines, and youth returning to school after dropping out.

The ultimate goal of the research will be to support Quebec students in the pursuit of their academic paths and to promote their success, he said. The commissioned research will also be used to establish and develop educational resources, health resources, and social services. Research results will be distributed to school administrators, teachers, and other education stakeholders.

Research priorities for the request for proposals will be established by the Ministry and a committee made up of experts from the field. Mr. Dussault mentioned that the first RFP would be issued in September 2001.

Mr. Dussault concluded by wishing participants an informative symposium and an enjoyable stay in Quebec City.

Yvan Dussault is an assistant deputy minister in the Quebec Ministry of Education where he is responsible for activities related to communications, strategic planning, research and assessment, statistics and quantitative studies as well as information technology management.

Mr. Dussault has degrees in social science and public administration, having studied at the École Nationale d'Administration in Paris. He has worked in the Quebec public service for over 30 years, holding positions in various ministries, including the Treasury Board. Mr. Dussault has been with the Ministry of Education for the past four years.

Paul Cappon, Director General, Council of Ministers of Education, Canada

Paul Cappon, Director General of the Council of Ministers of Education, Canada (CMEC), began his welcome speech by describing the goals of the Canadian Education Statistics Council (CESC). He explained that CESC was created with the intention of profiting from already established provincial and territorial education research programs in order to explore pan-Canadian priorities. The 1999 PCERA Symposium was held to promote the development of more solid linkages and dialogue between different partners in education. He noted that the continuing work of the Pan-Canadian Education Research Agenda is an effective instrument for maintaining and promoting these linkages.

Paul Cappon also discussed the Pan-Canadian Education Indicators Program (PCEIP), another ongoing initiative of CESC. The purpose of PCEIP is to provide a set of statistical measures for education systems in Canada. Policy-makers, practitioners, and the general public can use these indicators to develop an understanding of the performance of education systems in Canada and to inform decisions about priorities and directions. Mr. Cappon noted that indicators alone are insufficient; the research generated by PCERA is needed to provide background information that may lead to the development of new education indicators, and to help explain any causal relationships underlying the indicators. In this way, PCEIP and PCERA are complementary initiatives.

In his presentation, Paul Cappon also quoted Ben Levin, Deputy Minister of Education and Training for Manitoba and the keynote speaker from the 2000 PCERA Symposium, who said:

“In health care, evidence is often a critical component of policy-making, and nobody would suggest that health care practice should be unrelated to the best possible evidence. In education on the other hand, there is still a widespread view that research does not, and perhaps cannot, inform policy or practice, and that policy and practice are mostly a matter of common sense.”

Mr. Cappon noted that he believes such views of education research are changing, in Canada and around the world. He attributed these changes in opinion to the impact of globalization, new communications technologies, and the realization that “...the importance of education to human development is now more obvious than ever before.”

Paul Cappon gave examples of education research initiatives in the United Kingdom and followed with a discussion of current education research developments in Canada. Included in these developments are the School Achievement Indicators Program (SAIP) data sets. These data sets offer a wealth of raw information about Canadian student performance¹. At the federal level, the Social Sciences and Humanities Research

Paul Cappon has, since 1996, been the Director General of the Council of Ministers of Education, Canada (CMEC), which is the national voice of education in Canada. He integrates and synthesizes various academic backgrounds and professions within a single career: he holds a bachelor's degree in Economics from McGill University, master's and doctoral degrees in Sociology from the University of Paris, medical degree from McMaster University, with specialty training in family medicine and community medicine from Dalhousie and McGill. He has been a professor of Medicine at McGill University, professor of Sociology at the University of British Columbia, and Director of the Centre for AIDS studies at Montreal General Hospital. He has also been a university administrator, as Academic Vice-President at Laurentian University, a bilingual university in Ontario.

Paul Cappon has been active internationally over several decades, notably as Founding President of the Third World Medical Assistance Project, President of the Eighth World Congress of International Physicians for the Prevention of Nuclear War held in Montreal in 1988, and Founding President of the Quebec Centre for Nuclear Disarmament and Community Health.

¹ SAIP data sets can be requested through the CMEC Web site at <http://www.cmec.ca>

WELCOME SPEECHES *continued*

Council of Canada (SSHRC) has expressed great interest in examining education and lifelong learning. SSHRC has made a \$100 million commitment to research various aspects of the new economy; this includes the funding of education research.

According to Mr. Cappon, only two years after the first symposium, it appears that governments in Canada and around the world are recognizing the importance of solid education research. Therefore, the ongoing studies undertaken through PCERA are of great importance. Research programs and studies organized through PCERA increase the quality of discussion and debate surrounding education, and as a result, learning in Canada is enhanced.

Paul Cappon underlined the importance of the diffusion of research to stakeholders through events such as PCERA symposia. He also commented that holding the 2001 PCERA Symposium in conjunction with the Canadian Society for the Study of Education (CSSE), the Canadian Society for the Study of Higher Education (CSSHE), and the Congress of the Social Sciences and Humanities in a learning environment such as a university was not only encouraging, but also appropriate for the dissemination of research accomplishments.

To conclude, Mr. Cappon reminded participants that the teaching profession in Canada is undergoing major changes including changes in demographics, the development of distance learning, and the use of new communications technologies. All of these changes are contributing to an evolution in the ways Canadians teach and learn.

Miles Corak, Director of Family and Labour Studies, Statistics Canada

Miles Corak, Director of Family and Labour Studies at Statistics Canada, welcomed the audience to this year's symposium by describing the theme of the event and major research issues. He noted that the issues to be discussed during the event cut across a variety of disciplines and these issues inspired the use of different research methods, analytical perspectives, and information sources. He also noted that "we are all closely connected to a single policy concern: how to continue to foster and develop the resource most vital to learning: teachers and educators."

Mr. Corak proceeded to discuss the partnership between the Council of Ministers of Education, Canada (CMEC) and Statistics Canada in CESC. This partnership has helped to strengthen the development of many new research initiatives including:

- ◆ Youth in Transition Survey (YITS)
- ◆ Postsecondary Education Participation Survey (PPS)
- ◆ International Adult Literacy and Life Skills Survey (IALSS)
- ◆ Enhanced Student Information System (ESIS)
- ◆ National Longitudinal Survey of Children and Youth (NLSCY)

Mr. Corak strongly emphasized that "good analysis requires good data." He explained that Statistics Canada's role in education research is to provide high-quality data for analysis and decision-making. He also noted that "good data require good analysis." This is one of the many reasons why Statistics Canada has sought to develop a strong analytical capacity and maintain strong ties with the research and policy-making communities.

Mr. Corak stated that Statistics Canada's goal in participating in the PCERA symposia was to support the ongoing conversation on the rapidly evolving needs of policy-makers, researchers, and survey-takers. Statistics Canada is committed to advancing this conversation to find the most efficient ways to undertake research for which they are well positioned and to supply the statistical data that researchers need.

Miles Corak is Director of the Family and Labour Studies Division at Statistics Canada, a research group devoted to analysis of the well-being of children and families and their interaction with the labour market and social institutions, particularly the education system. He holds an M.A. in economics from McGill University and a Ph.D. from Queen's University. Before joining Statistics Canada in 1991, he was a member of the research staff of the Economic Council of Canada. He is also an adjunct professor with the Department of Economics at Carleton University, a Research Associate of the Canadian International Labour Network, and a member of the board of the Canadian Employment Research Forum.

Mr. Corak has published in a wide variety of academic and policy journals on topics related to intergenerational mobility, unemployment dynamics, and unemployment insurance. He has also edited two books, both published by Statistics Canada — one dealing with generational accounting, entitled *Government Finances and Generational Equity*, the other with the interaction between labour markets and families, entitled *Labour Markets, Social Institutions, and the Future of Canada's Children*.

KEYNOTE PRESENTATION

The Honourable Lyle Oberg, Minister of Alberta Learning

Dr. Oberg began his presentation by expressing his support for education research in Canada. He also expressed agreement with Dr. Cappon that common sense cannot replace education research. It is important that education research be conducted in order to optimize student learning in Canada.

Speaking about a recent meeting he held with the Alberta deans of education, Minister Oberg identified the issues in his province that have not been fully addressed by teacher education programs at the universities. He challenged the deans to come up with plans to address four major issues.

Dr. Lyle Oberg graduated as a Medical Doctor in 1983 from the Faculty of Medicine at the University of Alberta. He was elected to the Legislative Assembly in 1993 and in October 1995, he was appointed Chair of the Standing Policy on Health Restructuring.

In March 1997, he was re-elected and served as Minister of Family and Social Services from March 1997 to May 1999. During this time, he oversaw the move to community-based delivery of both children's services and services for persons with developmental disabilities.

On May 26, 1999, Dr. Oberg was sworn in as Minister of Learning. Prior to entering provincial politics, he had served as a School Board Trustee. As minister, he has championed the importance of lifelong learning and is working to ensure that Alberta's learning system is flexible, responsive, and accountable. In the provincial election of March 2001, Dr. Oberg was re-elected for a third term and retains his position as Minister of Learning.

Issue 1: Aboriginal Education

Minister Oberg noted that in Alberta, further work is needed on teaching Aboriginal students. In his opinion, Aboriginal students do not always have the same learning needs as other students. High school completion rates for Aboriginal students in Alberta range from 20% to 30%. The Minister posed the questions: "So what is different about these students?" and "Why are there low graduation rates?"

The answer to these questions, according to the Minister, is that the education system in Alberta was not designed for Aboriginal students. Teachers are not taught how to teach Aboriginal students in the manner that can best meet their different learning needs. The Minister described new school in Edmonton where the curriculum is tailored specifically for teaching Aboriginal students. The Amiskwaciy Academy, which opened for September 2000, was designed for Aboriginal students in grades 10–12 who do not feel they can learn in a regular public school environment. The academic results from this school have so far been positive.

Issue 2: Special Needs Students

Minister Oberg stated that the odds are very high that a Canadian teacher will have a special needs student in class at some point during his or her career. But most teachers do not have substantial training in teaching special needs students and, therefore, are not aware of how to ensure that these students reach their maximum learning potential.

The Minister emphasized that it is imperative that deans of education address this issue in order for Canadian schools to become a place where special needs students have the opportunity to learn and "are not simply ignored in the classroom because teachers do not know what to do."

Issue 3: Technology

According to the Minister, "we have to learn how to teach using technology." As technology advances, teacher education programs must incorporate into the curriculum lessons on how to teach using technology. "Technology is not just using PowerPoint or putting on a microphone. It is not using a computer as a glorified blackboard."

He proceeded to describe the Galileo Educational Network and the developed at the University of Calgary that help teachers develop teaching and learning strategies supported by technological innovation. Dr. Oberg recently visited a Social Studies 23 class whose teacher participated in the Galileo Network, and in which the students presented extensive multimedia presentations on World War I. The Minister noted that some of the students would likely not have completed the assignment, had they been asked to write essays instead. In this particular classroom setting, the use of technology had increased student learning.

In three years, every school, hospital, and library in Alberta will be connected to fibre optics. The Minister expressed his fear that students with improved access to the Internet will view this as simply an opportunity to gain access to more computer games. He emphasized that researchers and policy-makers have the responsibility to ensure that this technology is used appropriately. “We have to adapt to technology or else [we] risk losing huge potential,” he said.

Issue 4: Teacher Preparation and Support

Minister Oberg has noticed a trend in the behaviour of new teachers. Many new teachers leave the profession within their first four or five years. He attributes this trend in part to the fact that new teachers are often given the worst teaching positions when they first begin their careers. He questioned why they are assigned the most difficult teaching jobs, and suggested that assigning them these jobs at the beginning of their careers increases their propensity to leave the teaching profession, just as it would in any other profession.

The question remains: How do we retain new teachers? Mathematically, the Minister's response can be expressed as:

$$\text{Teacher Retention} = \text{Teacher Preparation} + \text{Teacher Support Systems}$$

According to him, mentorship programs for teachers should be further researched. He also suggested that the deans of education consider creating some kind of on-line communication system between new teachers and their university professors in order to provide the new teachers with access to advice and assistance, as required. Or, perhaps an on-line resource could be developed to provide new teachers with information on special needs and other areas where new teachers frequently seek guidance beyond what they learned during their teacher education programs.

The Alberta Initiative for School Improvement

The Minister then described the Alberta Initiative for School Improvement. This initiative involved commissioning 760 education research projects around the province; these projects were brought forward by teachers, parents, school administrators, and superintendents. The actual research is being conducted by those who submitted the projects, not by university researchers.

Dr. Oberg hopes that the projects will show what can and should be done to improve Alberta's schools. Even if only ten per cent of the projects are successful, the Minister said this would constitute \$70 million dollars extremely well spent.

In conclusion, the Minister commented that in the next four years there would be major changes in the Canadian education system. “All the signs are pointing to a huge surge in demand for education because employers are demanding it, parents are demanding it, and citizens are demanding it, and it is our job collectively to ensure that this demand is met.”



PANEL DISCUSSION – “FROM THEORY INTO PRACTICE”

Paul Cappon began the panel discussion session by introducing the panellists:

- ◆ **Dr. Yvonne Hébert**, Professor, Faculty of Education, University of Calgary
- ◆ **Victor Glickman**, Director of Edudata Canada and former Special Advisor on Research to the British Columbia Deputy Minister of Education
- ◆ **Harvey Weiner**, Deputy Secretary General, Canadian Teachers' Federation
- ◆ **Douglas McCall**, Educational Consultant and Director of Professional Services, Canadian Association of Principals

One of the aims of the Pan-Canadian Education Research Agenda is to encourage the use of research within ministries and departments of education and training, and in the field. Another important goal is to facilitate the interaction of academic researchers, policy-makers, and practitioners so that they can work together to develop a greater understanding of each other's needs and strengths. This panel discussion

was another means of facilitating the ongoing dialogue between policy-makers, researchers, and practitioners.

The theme of the panel discussion was “From Theory into Practice”; each panellist was asked to prepare a short presentation, drawing from their experiences and presenting the perspective of the organizations they represent. The following is a summary of the panel discussion, by order of speaker.

Dr. Yvonne Hébert

Dr. Hébert's comments were intended to draw attention to certain key points that were raised during the course of the two-day symposium. She also commented on issues that were not discussed during the symposium, but which she felt were still relevant for researchers, policy-makers, and practitioners.

Dr. Hébert remarked that even though the symposium had provided those in attendance with a deeper understanding of teacher education/educator training, there were still many questions left unanswered. She noted that although educational reform has been an important focus in Canada since the 1970s, there is still substantial confusion surrounding the topic of teacher education/educator training. Dr. Hébert presented the following key questions that have yet to be answered by education research:

- ◆ What constitutes good teaching today, in a changing society?
- ◆ How can institutional and structural responses improve teaching?
- ◆ What are the social and philosophical conditions affecting teaching, learning, and administration?
- ◆ Will there be a strong supply of well-qualified teachers for the schools of tomorrow?
- ◆ What is the purpose of education?

Full professor in the Faculty of Education, University of Calgary, **Dr. Yvonne Hébert** (Ph.D., UBC) currently teaches courses dealing with the sociology of education; curriculum contexts; democratic education; values and schooling; culture, identity and schooling; immigration and integration. From 1985 to 1990, she participated in the National Core French Study as research-developer of the General Language Syllabus. Currently, she is responsible for the Education Domain of the Prairie Centre of Excellence for Research on Immigration and Integration, part of a major project known as Metropolis (1996–2002), and serves as coordinator of the Citizenship Education Research Network since 1998. Having served as national president of the Canadian Society for the Study of Education (1996-1998), she is vice-president (1999-2001) of the international Association for Intercultural Research (ARIC). She also serves as a member of the Board of Directors of the Canadian Education Association (1998-2000) and of the advisory committee of the Pan-Canadian Education Research Agenda of the Council of Ministers of Education, Canada. Her books include two co-edited volumes, *Indian Education in Canada, Volume 1: The Legacy* (1986) and *Volume 2: The Challenge* (1987), both with UBC Press; and *Citizenship in Transformation in Canada* (University of Toronto Press, forthcoming, 2002). She is the recipient of a Killam Resident Fellowship at the University of Calgary to write a book in the fall of 2001, *Becoming Canadian: Youth, Identity, and Strategic Competence*.

According to Dr. Hébert, the supply and demand of teachers in Canada should not necessarily be only a provincial concern. Initiatives should be developed to increase the mobility of teachers from provinces/ territories where surpluses exist to provinces/ territories where there are shortages. “Not looking at the interaction between the jurisdictions is inappropriate,” she claimed. Dr. Hébert suggested that policy-makers and researchers need to look at the “larger picture.” She added that teacher migration contributes to social cohesion and creates a greater sense of understanding of one another.

Dr. Hébert continued by commenting that the Canadian teacher shortage is not caused only by teachers leaving the profession. There are other reasons why individuals do not enter the profession or who leave besides teacher burn-out and job dissatisfaction. Some students pursue a degree in education with no intention of teaching after graduation. Many students train for various professions without making them their actual careers; 10 to 20 per cent of graduates do not enter the profession for which they were trained upon completing their studies. Also, the study of education involves the development of knowledge and skills that are highly transferable to other professions, which is yet another reason why recent graduates may not wish to teach.

Dr. Hébert concluded her presentation by commenting that teachers and educators are on a quest to discover meaning in teaching. She suggests that teachers are searching for purpose in their work, as well as for quality in teaching.

Victor Glickman

Victor Glickman began his presentation by stating that policy-makers support the Pan-Canadian Education Research Agenda because they have a need to understand the context surrounding emerging issues such as teacher/educator supply and demand, and teacher/educator professional development. He commented on the importance of sustaining the conversation between policy-makers and researchers. Policy-makers use PCERA research to develop a context for emerging issues and use this context to situate these issues in their own provinces and territories.

Victor Glickman noted the importance of moving away from the Canadian education system’s “secret society.” He remarked that practitioners, policy-makers, and researchers have to “help the general public understand what evidence is underlying the teaching and organizational strategies that make our school systems what they are today. Too often scholars know what research and evidence is out there, but there isn’t the sense of sharing that there ought to be.” He also noted that the PCERA Symposia are important in making the research, evidence, and reasons why our school systems are the way they are more transparent for Canadians. According to Victor Glickman, there is still much more to be learned about how teachers/educators are delivering education in Canada and what the implications and outcomes are.

In conclusion, Victor Glickman maintained that the research community, practitioners, and policy-makers should look for different ways to deliver more general information about teacher education/ educator training to a broader public.

Victor Glickman is Director of Edudata Canada (Canadian Education Data Network) at the University of British Columbia and is a Research Associate in the Faculty of Education. He was previously responsible for the British Columbia Ministry of Education’s strategic research capability, research plan, and priorities. He has managed research relationships with provincial and federal organizations (B.C. Teachers’ Federation, B.C. School Superintendents, B.C. Research Universities, Statistics Canada, Social Sciences and Humanities Research Council, Industry Canada, Human Resources Development Canada), and he has directed many large-scale data projects for Statistics Canada and British Columbia ministries.

PANEL DISCUSSION – “FROM THEORY INTO PRACTICE”

continued

Harvey Weiner

Harvey Weiner began his presentation by expressing an interest in seeing more practitioners participating in research symposia such as PCERA. Without having practitioners present to offer their opinions and perspectives, Mr. Weiner suggested that researchers and policy-makers have the tendency to maintain the status quo in education research. He remarked that teachers have to work more closely with researchers and policy-makers in order to find enduring solutions to problems in the field.

Harvey Weiner has been Deputy Secretary General of CTF since 1988. The former teacher, negotiator, and federation leader in Quebec is currently responsible for expanding CTF's advocacy work with the federal government and liaison with labour, with the Council of Ministers of Education, Canada (CMEC), the Canadian School Boards Association (CSBA), with NGOs, the voluntary sector, parent organizations, and the business community on issues of mutual interest.

Mr. Weiner has a wide range of experience in, and extensive knowledge of, federal and provincial/territorial legislation on issues related to education and the health and well-being of children and youth. His dedication to learning is exemplified by a project he initiated aimed at improving literacy among children and youth. The “Hit the Books” program, conceived and developed by Mr. Weiner in the early 1990s, is a partnership between CTF, the National Literacy Secretariat of Canada, and Canada's two major league baseball teams. The materials produced help motivate young readers to read and develop their literacy skills and are used in thousands of schools across Canada.

Mr. Weiner also commented on the lack of mentorship programs for new teachers; this teacher education issue had been discussed several times during the course of the symposium. While supportive of the concept, his major concern was the absence of recognition of the benefits of such programs and the need for them to be integrated into teachers' workloads. He also emphasized that not everyone is equipped to assume a mentor's role and that training and professional development opportunities would be necessary for those assuming this responsibility.

Harvey Weiner described the research papers presented at the symposium as being micro-experiments. He questioned the possibility of using these micro-experiments to develop macro-experiments; if it is not possible to develop similar macro-experiments, education research may end up “locked into a perpetual set of micro-experiments.” According to Mr. Weiner, research is usually conducted on a micro-basis because of geographic issues, the nature of teaching as it currently exists, and the bureaucracy and hierarchical structures involved. He asked the participants to explore and consider possible solutions to help overcome these obstacles.

Mr. Weiner commented that many of the presentations at the symposium had addressed the importance of pre-service teacher training. However, he noted that in-service training and professional development was not given the same amount of attention, even though these topics should be considered of equal importance in terms of education research. He also mentioned that more time

and resources should be committed to in-service training and professional development for those already employed by the school system.

Mr. Weiner suggested that researchers and policy-makers should further examine what is meant by “success in education.” He suggested that researchers should investigate which indicators of success are currently being evaluated in schools. They should also determine whether current indicators of success are used because they measure criteria that are truly valued, or because they are simply easy to measure. Mr. Weiner suggested that a student's success should be measured not only by grades but also by contributions to society after finishing school.

In conclusion, Harvey Weiner agreed with Victor Glickman that education research should be made more available to the general public. The public should be made more aware of what education research is being conducted in schools and have better access to the research results.

Douglas McCall

Douglas McCall began his presentation by noting that students in schools today are exposed to a different type of reality than they were in the past. In light of issues such as bullying, it is clearly imperative that researchers and policy-makers not allow their discussions to become disconnected from this new school reality. He also warned symposium participants of “drive-by policy making” that can result when policy-makers are bombarded with instant impressions from bits of research, and then have to make a policy decision because there is simply not enough time to wait for further research or information on which to base decisions.

Mr. McCall also raised the question posed to Minister Oberg regarding the Alberta Initiative for School Improvement. An individual had asked the Minister why people in the field (teachers, parents, and school administrators) were the ones suggesting and conducting the research projects funded by the initiative, and not university researchers who are more experienced in the research field. Douglas McCall challenged the idea that those working in the field are not capable of producing quality research. He noted, “...as Miles Corak said, we need good data and good analysis, but we also need good questions. Good questions come from the field; they have to be grounded in daily practice.”

Mr. McCall also commented on existing pressures within government agencies to be “innovative.” This can often lead to the funding of education research on somewhat esoteric topics. “It is scary how research is no longer relevant to the day-to-day reality of the schools. We have to be careful that we don’t succumb to [these pressures] as researchers.” As an example, Mr. McCall described the abundance of research on networked classrooms and how technology is transforming learning. This research is based on the assumption that classrooms will be full of networked, high-speed computers. However, Mr. McCall noted that researchers, such as Dr. Henry Becker² and SchoolNet³ who have studied actual teacher use of the Internet in the classroom, have found that most computers in schools are not in the classrooms; they are usually located in resource rooms or computer labs. If there is a computer in the classroom, usually only one or two students can use it at the same time. The classroom with many connected computers often exists only where a computer/software company is trying to demonstrate or sell its wares. Douglas McCall noted that the “connected classroom” does not yet exist widely in Canada, and researchers and policy-makers should not lose sight of this classroom reality.

Mr. McCall also noted the existence of growing pressures on school-based administrators to move away from leadership in the schools. Administrators now have many new responsibilities (organizing parent councils, organizing support services for students with disabilities, responding to school safety concerns

Douglas McCall, Director of Professional Services, Canadian Association of Principals (CAP), has had a varied career as a teacher, union leader, community organizer, lobbyist, and small business owner. He received his B.Ed. from McGill University, then did his post-graduate studies in education policy at Concordia University.

His recent professional work relevant to teacher education includes a major study and national conference on the preparation of health teachers done for Health Canada, a study on the impact of different types of in-service training for the Council of Ministers of Education, Canada, and a study of the training of school principals in technology for Human Resources Development Canada. Mr. McCall also authored the CAP position statement on educational leadership.

² Becker H.J. (1999). *Internet Use by Teachers*. Irvine, CA: Center for Research on Information Technology and Organizations, University of California.

³ Drouin J. (2000). *SchoolNet's On-line Connectivity Survey Final Report*, Ottawa, ON, SchoolNet, [http://www.schoolnet.ca/home/e/Research_Papers/Research/SchoolNet_Research/Final_Survey_Report_2000\(English\).htm](http://www.schoolnet.ca/home/e/Research_Papers/Research/SchoolNet_Research/Final_Survey_Report_2000(English).htm)

PANEL DISCUSSION – “FROM THEORY INTO PRACTICE”

continued

among others). Mr. McCall suggested that there should be a policy response on how to handle these growing pressures on the school administrator.

Douglas McCall also noted that recent studies report that the majority of school administrators enjoy their jobs, are challenged by their jobs, and feel that their work is important.

Professional growth plans were also discussed. Mr. McCall recalled his experience in 1975, where professional growth plans were adopted by a local school board in Montreal. However, unlike the plans discussed by Dr. Tara Fenwick in her presentation, these plans allowed teachers to choose a colleague, family member, or even a friend to monitor their professional growth. It did not have to be the principal of the school where the teacher worked. However, even then, the teachers resisted the growth plans. Mr. McCall suggested that more research should be conducted in this area, and he referred symposium participants to a study led by Dr. David MacKinnon of Acadia University that compared different approaches to teacher professional development.⁴

Finally, Mr. McCall suggested that more resources are required for the dissemination of education research in Canada. He also suggested that distribution methods be examined in order to disseminate the research and new knowledge presented at the PCERA Symposia to several audiences and allow them the opportunity to access and use this information.

⁴ MacKinnon D., Barnes L., Landry R., Beazley G., Dalley P., McCall D. (1992) CMEC AIDS/Sexuality Teacher In-service Research Project, Toronto, ON, Council of Ministers of Education, Canada

SUMMARY

- ◆ Both the role of teachers/educators and teacher education/educator training programs are undergoing major changes, and they will continue to do so as more complex challenges present themselves (e.g., using technology in the classroom).
- ◆ Actual teacher/educator shortages may differ in both scale and scope from what was previously expected.
- ◆ Professional growth plans and other professional development strategies for teachers and educators should be further investigated in order to effectively promote lifelong learning.
- ◆ New teachers/educators need more support and resources in order to succeed.
- ◆ Partnerships between universities and schools can be beneficial for the development and improvement of teacher education/educator training programs.
- ◆ In terms of leadership, the role of the school administrator should be re-evaluated because of increasing managerial responsibilities and decreasing opportunities for educational leadership.
- ◆ The general public needs to be better informed and more involved in education research and the resulting policy decisions.

CONCLUDING REMARKS

Miles Corak

Miles Corak concluded the symposium on behalf of Statistics Canada by noting the strong commitment to education research made by the Centre for Education Statistics at Statistics Canada. He thanked all those involved in planning the symposium and said he was looking forward to next year's event.

Paul Cappon

Paul Cappon concluded the event on behalf of CMEC and thanked those involved in the planning of the symposium, thanking in particular Donald Fisher and Tim Howard from the Canadian Society for the Study of Education (CSSE) for their support, Nérée Bujold from Laval University, Miles Corak for acting as co-chair, and all the symposium participants who shared their ideas through presentations and discussions. He also thanked everyone for their interest in the activities of the Pan-Canadian Education Research Agenda.

Mr. Cappon noted that participants would leave the symposium with a deeper understanding of teacher education/educator training as well as a broader perspective on what education research can teach policy-makers and practitioners. As many authors had suggested in their presentations, the challenge remains to put this new knowledge into practice. He noted that decision-makers should take into account the presented research and base their decisions on the appropriate proof; that researchers should take the research into account as they continue related studies and should further investigate the aspects of teacher education/educator training that were presented at the symposium as well as areas that have not yet been explored.

Paul Cappon announced that the focus topic for the 2002 PCERA Symposium would be "Information Technology and Learning," a topic of profound importance and of interest to all levels of education. Mr. Cappon said that he looked forward to similar animated and enriching debates at next year's symposium, and that he hoped to see all 2001 PCERA symposium participants again in 2002.

Session 1: Role of Teachers/Teacher Education; Role of Educators/Educator Training

Pre-service Teacher Training Programs: Outcomes of recent reforms and new trends toward effective professional training

Maurice Tardif – Université de Montréal;

*Diane Gérin-Lajoie, Stephen Anderson
– University of Toronto;*

*Claude Lessard, Thierry Karsenti
– Université de Montréal;*

Clermont Gauthier – Université Laval;

Donatille Mujawamariya – Université d'Ottawa;

*Joséphine Mukamurera, Danielle Raymond, Yves Lenoir
– Université de Sherbrooke*

The key question in this report is: Given the current state of knowledge and the experience of over a decade of teacher training reform in North America, how can we design and implement, in education faculties and/or departments, pre-service teacher training programs that are fully appropriate to the needs and realities of today's classroom, and therefore that reflect the roles and competencies required of today's teaching practitioners at the elementary and secondary levels?

To answer that question, this group of researchers focused on a multidisciplinary angle, including the latest research in the various scientific disciplines that have in recent years addressed the issue of teacher training programs. Methodologically, the report takes into account four fundamental dimensions of the curriculum, highlighted by research:

1. the institutional environment and program resources
2. program content and the underlying epistemological concepts
3. training systems and processes
4. expected competencies and program evaluation

For each dimension, the research and review of official literature allowed the authors to present convincing findings on what they know today about creating, implementing and managing effective pre-

service teacher training programs. The authors have also highlighted certain themes and issues that they suggest should be studied in greater depth.

Teacher education in the networked classroom

Thérèse Laferrière – Université Laval;

Robert Bracewell, Alain Breuleux – McGill University;

Gaalen Erickson – University of British Columbia;

Mary Lamon – University of Toronto;

Ron Owston – York University

The purpose of this paper is to delineate the role of teachers/educators in networked classrooms. First, the authors present how the teachers' primary workplace is changing; how it is changing from a traditionally isolated classroom to the networked classroom. Second, the authors point to how the roles of teachers and learners are shifting: a networked classroom calls upon the teacher's competence to direct or facilitate learning through both face-to-face and on-line interaction with students. Third, teacher education design experiments in networked classrooms are briefly presented. Fourth, the authors suggest a tentative framework of teacher education models supportive of Canada's innovation agenda.

Transitions: Becoming a College Teacher

Walter Froese, Claudine Lowry, George MacLean

– Organizational Learning, Nova Scotia Community College

This study investigated how well the Nova Scotia Community College prepares new faculty to become effective instructors.

The literature review revealed that community colleges generally do not devote many resources to good teaching, yet faculty identify teaching as the principal reason for choosing colleges. To be effective, instructional training programs require a concerted institutional response.

The survey and focus groups we conducted revealed that faculty share concerns similar to peers elsewhere, and that the Community College Education Diploma Program is a very effective way to help new faculty become more effective instructors while making the transition to a new occupation.

Session 2: Teacher/Educator Supply and Demand

The supply and demand of elementary-secondary educators in Canada

Ginette Gervais, Isabelle Thony – Statistics Canada

During the last few years, concerns have been expressed as to whether the supply of elementary-secondary educators will be sufficient to meet Canada's needs in the near future. This research outlines the main components and results of a supply and demand projection model developed by the Centre for Education Statistics of Statistics Canada to estimate the number of educators required in the next decade. This model is considered a work in progress; however, it has identified interesting trends. The analysis presented is national in scope and also presents a view of the balance between the need and availability of elementary-secondary educators in all provincial jurisdictions from 1998 to 2010. It provides valuable, factual insights into the debated teacher surplus/shortage issue.

Projections of Teaching Staff in Quebec School Boards and Recruitment Requirements

Raymond Ouellette – Ministry of Education, Quebec

For several years, the Direction des statistiques et des études quantitatives of the Ministry of Education, has been producing projections of teaching staff for Quebec school boards. Historical observations (since 1989–90) and projections make it possible to describe the situation of teachers and to follow trends. This model allowed the authors to study the ageing and mobility (especially in terms of retirement) of the teaching force. The results of these projections served to produce a model for regulating pre-service teacher education programs and entry into the teaching force.

Observations from the fall of 2000 and winter of 2001 added three new years to the data presented in the *Education Statistics Bulletin No. 9*, and projections are available to 2011–2012. The findings are quite surprising in the light of the most recent student enrolment projections. Much smaller cohorts in 2003–2004 will produce a decline in enrolments in Quebec similar to that of 1975 (20% as opposed to 33%).

Between 2000–2001 and 2011–2012, there will be a 15% decrease in teaching staff; the average age of the teachers will vary between 44 and 45 years; and the profession will continue to attract mainly women, the proportion climbing from 69% in 1998–1999 to 77% in 2011–2012. Recruitment needs today accounting for more than 4,000 teachers will drop to fewer than 2,000 in 2007–2008. These needs represent 4% of the teaching staff today, but only 2.5% in 2008–2009.

Quebec's 1992 Teacher Training Program Reform: Assessing an attempt to regulate the supply of newly qualified teachers and to improve access to the profession

*Jean-Claude Bousquet, Renaud Martel
– Ministry of Education, Quebec*

The Quebec teacher training program reform experiment involved measures to match new teacher supply to market needs. From a situation in 1995 where the rate of access to employment was poor and declining, the reform brought about an improvement of access to jobs for recent graduates. While there is a link between the rate of access to employment and the ratio between qualified candidates and hiring, that link is somewhat distorted by a certain mismatch between pre-service training and job assignments, especially in mathematics where many new special education graduates end up working.

New graduates who do not quickly accede to substantial teaching jobs do not remain in the profession for long. Less than full-time positions, especially occasional supply teaching, are not real jobs that candidates can use as stepping-stones. Indeed, the recent early signs of scarcity have already led to improvements in conditions in some of these positions.

The steps taken to manage the supply have already been effective in reducing the teacher dropout rate, but they must be formalized in a system involving the various stakeholders, in order to be sustainable and adapt to changes in the prevailing situation.

Teacher and administrator shortages in changing times: avoiding the dilemma of saving the train from hijackers to find there's no train left!

Peter P. Grimmett – Simon Fraser University;

Frank Echols – University of British Columbia

This paper addresses the looming shortages of teachers and administrators in Canadian schools. Against a backdrop of demographic change and a world-wide educator shortage, the case of British Columbia is examined. Using a qualitative interview method, involving three provincial agencies and teachers and administrators in twelve purposively selected districts, the study found teacher shortages by region, level, and subject. Specifically, shortages were found province-wide at both elementary and secondary levels, particularly in specialized areas such as French as a second language (FSL), Mathematics, Physics, Chemistry, and Business and Technology Education. The Teachers-On-Call pool has become the route to permanent appointment, particularly when provincial policy decisions impacted local teacher supply and demand. Some teachers were found to be teaching out-of-field, necessitating their re-alignment with the demands of the curriculum to meet the learning needs of students. The study also found that, despite the student population being made up of diverse backgrounds and ethnicities, few individuals from those backgrounds were entering teaching because of cultural and systemic barriers. Districts expected teacher preparation programs to play a role in addressing shortages arising in local education contexts. They suggested the need for a better fit between what universities do, what the government wants, what districts can deliver, and what the College of Teachers requires as qualifications. All these factors added up to a projected across-the-board shortage in British Columbia by 2006, but the study found evidence that a small shortage already exists in particular regions and subjects.

The unexpected finding was that a shortage of administrators is also imminent. The study found that the organizational conditions of schools were characterized by managerialism, adversarialism, and a battle over who represents kids. The demographic

changes are also affecting administrator supply and demand. But the organizational conditions are making it difficult for districts to recruit appropriately experienced teachers into school administration. Teachers were interviewed about why they were or were not seeking administrative positions. It became evident that a decade of curriculum change in British Columbia has had a negative effect on experienced teachers. They have begun to disinvest. Their reasons had to do with the unattractive work conditions of administration and its remuneration, and the fact that they have made a lifestyle choice to stay in a position where they can hold on to the ideals that first brought them into teaching. They do not consider administrators as educational leaders. At the same time, younger and less-experienced teachers are seeking administrative positions. They have not disinvested but neither do they fit the expected profile for leadership. Rather, they align themselves with the managerial nature of administration in today's adversarial conditions.

The authors suggest five ways in which the work conditions and recruitment of administrators can be improved to attract high-calibre candidates. But the authors also end with a plea. They would not wish a shortage of teachers and administrators to be used to justify appointing persons to positions who are not committed to fundamental educational values. The authors believe strongly that we must work together responsively to address both the immediate need for well-prepared teachers and capable administrators and the organizational conditions and the culture in which educators do their work.

Teacher supply and demand: An analysis of current developments in Newfoundland and Labrador

David C. Dibbon

– Memorial University of Newfoundland

This paper focuses on human resource issues associated with the demand for, supply of, and retention of teachers in the Canadian province of Newfoundland and Labrador. The results may help determine whether or not a sufficient labour pool exists to meet the province's demand for educators

RESEARCH PAPER ABSTRACTS AND SUMMARIES OF PRESENTATIONS

continued

and will provide valuable labour market information for young people considering a career in the education sector. As well, the paper is valuable for government policy-makers and educational leaders concerned about the quantity and quality of the labour supply. If used wisely, the results may help to ensure that all schools, regardless of the social and economic circumstances of their particular communities, are able to attract highly qualified teachers.

Current and Future Labour Market Conditions for Professors in Canada

Christian Dea

– *Human Resources Development Canada*

This presentation focuses on the Canadian Occupational Projection System (COPS) developed by HRDC. The system was formed in 1982 to allow the federal, provincial, and territorial governments to work together to produce labour market information. The mandate of the system is to produce and disseminate timely, reliable, consistent, and relevant labour market information and research.

COPS was used to create a profile of teaching occupations in Canada. Key economic drivers and their implications for labour market conditions for the teaching profession are described in the presentation. The presentation also provides a summary of issues that will affect the labour market conditions for teaching in Canada; these issues include demographic changes, teacher retirement rates, the movement toward a knowledge-based economy, growth limits on the supply of teachers, and other factors such as technology and distance learning.

Session 3: Teacher/Educator Professional Development

Preschool Education Training: Skills for Adapting to a Changing Society

François Larose – Université de Sherbrooke;

Bernard Terisse – Université du Québec à Montréal;

Thierry Karsenti, Johanne Bédard

– *Université de Montréal*

Using a Canada-wide perspective, this report deals with the issue of societal conditions that have prompted government agencies in North America, and

especially in Canada and Quebec, to develop and offer preschool education services to ever-younger segments of the population.

The authors first deal briefly with the background history of preschool education to the extent that this history is situated first and foremost in a twofold perspective of the government's response to women's need for access to the job market and the need for compensatory intervention in materializing equality of opportunities for educational success among low socio-economic communities. Subsequently, the authors deal briefly with the status of teaching-specific training at preschool level, for classes of four- and five-year-olds (*maternelle* in French, *pre-K* and *kindergarten* in English-language systems), as part of current teacher training programs in most provinces in Canada. The authors particularly highlight the variability of the degree to which the mission of kindergarten teaching is taken into consideration, depending on teacher education faculty and programs. Third, the authors draw a quick overall portrait of the penetration of computers into Canadian and North American homes, then describe the situation of school computers in kindergarten classrooms, and the issue represented by ICTs. Lastly, having described the hybrid status of the mission that has fallen to kindergarten teaching and traced a brief portrait of practising teachers' specific qualifications for the task, the authors suggest a number of avenues for adapting pre-service and continuous teacher education to new social and technological demands faced by practising teachers.

Fostering Teachers' Lifelong Learning through Professional Growth Plans: A Cautious Recommendation for Policy

Tara Jane Fenwick – University of Alberta

This article addresses the question *What approaches, experiences, and resources foster lifelong learning of teachers?* drawing from a qualitative study of an approach to teacher development and supervision recently mandated in Alberta: teacher professional growth plans. The study interviewed teachers, principals, and superintendents in various jurisdictions about their experiences, perceptions, and challenges in implementing growth plans. The article first presents significant issues in current debates about lifelong

learning in general and teachers' professional development in particular, then describes the research findings in terms of approaches, experiences, and resources that appear to best enable teachers' learning. The article concludes that when implemented with commitment, affirmation and collaboration, teacher professional growth plans are a positive first step toward fostering learning communities in schools. Recommendations and cautions for the development and implementation of growth plan policies are provided, based on the Alberta experience.

Session 4: Indicators of Success

Quality Indicators for Teacher Training in Canada

Richard Alan Yackulic, Brian W. Noonan
– *University of Saskatchewan*

The purpose of this paper was to identify the indicators of a successful teacher education/educator preparation. The purposes of quality indicators for a teacher education program include, but are not limited to: 1) providing policy-makers and program planners with information on the important, measurable components of teacher education programs; and 2) providing a framework for discussion on the preferred knowledge, skills, and attitudes of future teachers/educators. The paper includes: 1) a brief discussion on the generally accepted knowledge base for teacher education; 2) an overview of the basic principles and practices of indicator systems; and 3) results of a survey of deans of education on quality indicators for teacher education.

With respect to the teacher education knowledge base, Gore (2001), Christensen (1996), Reynolds (1989), Shulman (1987) and others have proposed various frameworks for such a knowledge base. Despite somewhat differing perceptions as to what constitutes the knowledge base, there is considerable consensus on the elements of its framework. Interestingly, some teacher education program initiatives have moved beyond a knowledge base or conceptual framework to the establishment of standards for beginning teachers (Australian Council of Deans of Education, 1998).

The generally accepted knowledge base was used as a framework for a survey of deans of education in Canada and Australia to determine their perceptions of preferred quality indicators of teacher education. The results showed that there was considerable agreement in the views of the deans from the two countries. The most highly rated indicators were those closest to the program, such as quality of curriculum and instruction, field experiences, and developing beginning teachers' knowledge of the principles of learning. Indicators commonly used in large-scale accountability programs (student-faculty ratio, alumni support, library holdings, scholarships, and funding) were ranked relatively low. This raises questions about how the construct and consequential validity can be assured in developing an indicator system.

The results present two important implications for teacher education. First, the most useful indicators for teacher education are those closest to the program. It is doubtful if general indicators will be of value. Second, new models are needed to explore the relationship among the many teacher variables affecting student learning, particularly with respect to teacher preparation, teacher performance, professional development, and the effects of out-of-field teaching.

Indicators of Success in Teacher Education: A Review and Analysis of Recent Research

Tom Russell, Suzin McPherson – *Queen's University*

In this paper, indicators of success in teacher education are reviewed in four major sections, beginning with the quality of teacher education programs. Subsequent sections consider external and internal factors influencing teacher educators, the relationship of qualifications and professional development to student achievement, and the impact of out-of-field teaching.

Collaboration and cooperation between schools and universities are major elements in successful programs that have brought real change to teacher education. The most promising criteria for judging the quality of preparation are the perceptions of those learning to teach. Coherence across instructional elements of programs and between instruction and personal classroom experiences is the most obvious indicator of quality.

Session 5: Leadership

The Evolving Role of Educational Administrators

*Robert B. Macmillan, Ann Sherman, Matthew Meyer
– St. Francis Xavier University*

This paper examines the role of in-school administrators as their jobs shift to accommodate organizational changes in education. With the changes, administrators have had placed on them additional responsibilities and expectations, which have distanced them from involvement in classrooms. The meta-analysis of the research identified the shifts in responsibilities and expectations for administrators since 1980 when the effective schools movement identified the principal as the “instructional leader.” The authors re-examined several sources of data collected since 1999 in Nova Scotia. The analysis of these data determined that shifts identified in the literature are experienced in the field. Recommendations for research are presented.

Postmodern Leadership and the Policy Lexicon: From Theory, Proxy to Practice

*Trent Keough, Brian Tobin
– College of the North Atlantic*

Institutions define their cultures through policies prescribing operations and functions that sustain the hyperreality implied in mission and vision. These institutional policies can manifest key attributes of postmodernism, thereby influencing and being influenced by postmodern leadership practice.

A literature review of writings on postmodernism provides an essential link to ontological theory asserting the appropriateness of a postmodern lexicon for leadership and policy development. The rudimentary tenets of the postmodern lexicon exist in policy structures and are manifested in the policy lexicon of colleges.

Policy documents can outline the relationship between the Postmodern Proxy and organizational structure. The collective value drawn from individual volition evolves from the Postmodern Proxy, giving life first to mission/vision and subsequently to institu-

tional goals. Acceptance of a defined hyperreality linking the Postmodern Proxy to institutional identity is essential to stakeholder growth and development.

The institutional leader must concentrate on perpetuating a hyperreality, derived from vision and mission that cannot be destroyed by misguided interpretations of discourse, diminished by local narratives or dissolved by inept use of power. For the administrator and the leader within a postmodern institution, nothing is inherently stable — not even the institutional hyperreality itself. The challenge for institutional leaders is to retain an unwavering commitment to reflexivity, to champion an awareness that administrative autonomy is fundamentally imaginative, and to acknowledge that privilege is a product of respect earned from nurturing positive and beneficial relationships.

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BIOGRAPHIES

Dr. Maurice Tardif (Ph.D., Philosophy of Education) is a full professor at the Université de Montréal, Vice-President of the Canadian Society for the Study of Education, and Director of the Centre de recherche interuniversitaire sur la formation et la profession enseignante (CRIFPE). He has published some fifteen books on the teaching profession in Quebec and Canada, on teacher training, and on core elements of knowledge for teachers.

Dr. Thérèse Laferrière is professor of pedagogy at Laval University, and the leader of the theme “Educating the Educators” within the TeleLearning Network of Centres of Excellence (NCE Program). Her research activities focus on teacher-student(s) interactions, peer interactions, and interactions of communities of learners, as networked classrooms become reality in elementary, secondary, and postsecondary classrooms.

Mary Lamon is a researcher and a pre-service teacher educator at the Ontario Institute for Studies in Education of the University of Toronto. She collaborates with leaders of the “Educating the Educators” and “K-12” themes within the TeleLearning Network of Centres of Excellence (NCE Program). Her research focuses on creating, developing, and sustaining Knowledge Building Classrooms, supported by Knowledge Forum® software.

Claudine Lowry is the Dean, Organizational Learning for the Nova Scotia Community College (NSCC). In this position she is responsible for the planning, design, delivery, and evaluation of organizational learning strategies. Ms. Lowry has over 15 years of experience in the area of Human Resources Leadership. Before joining NSCC, she was Director of Human Resources for Mount Saint Vincent University and Manager of Human Resource Development for Dalhousie University.

Ms. Lowry holds a master’s degree in Sociology, has successfully completed course work and exams for a Ph.D. in Adult Education, and is a graduate of the Certificate Program in Labour Relations from

Queen’s University. She has completed the Leadership Development Program through The Niagara Institute and the program of The Academy for Leadership and Training Development offered by the Chair Academy.

Walter Froese was born in Germany, raised on the Prairies, and spent most of his working life in Ontario before coming to NSCC as an Organizational Learning Consultant. At NSCC, he has been involved in a variety of professional development activities, but especially the CCEDP and the Summer Institute, which included the Uzbekistan project last year.

Before coming to NSCC, he was a faculty member in the School of Business at Georgian College in Barrie, Ontario, teaching most recently in the Research Analyst Program. He has also been involved in various international projects, including CIDA projects in the Baltics and Uganda. For several years, he facilitated courses in the Bachelor of Adult Education Program at Brock University and helped edit *The College Quarterly*, an on-line journal about college teaching. Mr. Froese did his undergraduate work at the University of Manitoba and his graduate work at the University of Toronto.

Ginette Gervais is an analyst in the Elementary-Secondary Section, Centre for Education Statistics, Statistics Canada. She is responsible for the survey of teachers, which aims to collect data on various characteristics of educators, especially their training background, subject area, specialty, employment status, gender, and age. Ms. Gervais is also working on a model of teacher supply and demand, designed to provide a framework to analyze issues related to excess supply or scarcity of teachers at the pan-Canadian and provincial levels.

Prior to joining Statistics Canada, she received a bachelor’s and a master’s degree in political science from Laval University. She is currently studying economics and business administration at the University of Ottawa.

Isabelle Thony is senior technical officer in the Elementary-Secondary Section, Centre for Education Statistics. She is responsible for providing technical support for surveys of teachers and school enrolment. She coordinates all aspects of data collection and processing. In addition, she performs analysis and research functions within the Centre for Education Statistics. She is currently working with an analyst on developing a model to project educator supply and demand in Canada.

Ms. Thony has worked at Statistics Canada for the past four years. She holds a bachelor's degree in mathematics from Université du Québec à Montréal, with a major in statistics.

Raymond Ouellette has been a demographer at the Statistics and Quantitative Studies Branch of the Quebec Ministry of Education since 1982. He moved to Quebec after a brief stint at the Demography Division of Statistics Canada in Ottawa, where he had prepared population estimates for Canada and the provinces. He became responsible for the enrolment forecasts for school capital projects, and in 1988, he was put in charge of the forecasts for teacher supply. He has carried out a number of studies on teacher supply and has also performed ad hoc studies on other subjects, including Aboriginals and schools (1991), producing enrolment forecasts for a Ministry program review (various years, 1995 to 1999), and producing and presenting forecasts of school administrator positions for school boards (*Statistical Bulletin* 15, 2000).

Jean-Claude Bousquet has a Master's degree in Geography and is a certified teacher in France. He has been a researcher at the Quebec Ministry of Education since 1980 and is Assistant to the Director, Statistics and Quantitative Studies Branch. He has worked on Ministry of Education indicators, co-authored two books on the teaching profession, written several reports and studies on various aspects of teacher demographics, and designed the integrated teacher database as well as the admission quota model for teacher training programs.

Renaud Martel received a Bachelor's degree in actuarial science from Laval University in 1975. Since 1975, he has been a computer analyst at the Ministry of Education and currently works in the Statistics and Quantitative Studies Branch. He designed and implemented the integrated teacher database and SIDE (Système d'information pour dirigeants sur l'emploi du personnel enseignant [Teacher Employment Management Information System]). He is the co-author of several reports on teacher demographics.

Peter P. Grimmett is Professor of Education in the Faculty of Education and Co-Director of the Institute for Studies in Teacher Education at Simon Fraser University. His research interests focus at the pre-service and in-service levels on the relationship between teachers' development of their craft and the processes of reflection, collegial consultation, and classroom-based action research. He has consistently collaborated with the numerous teacher research groups around the province of British Columbia.

His recent publications include *Reflection in Teacher Education* (with Gaalen Erickson, Teachers College Press, 1988); *Craft Knowledge and the Education of Teachers* (with Allan MacKinnon, American Educational Research Association, 1992); *The Transformation of Supervision* (with Olaf Rostad and Blake Ford, Association for Supervision and Curriculum Development, 1992); *Teacher Research and British Columbia's Curricular-instructional Experiment: Implications for Educational Policy* (The Journal of Educational Policy, 1993); *Teacher Development and the Struggle for Authenticity: Professional Growth and Restructuring in the Context of Change* (with Jon Neufeld, Teachers College Press, 1994); and *Changing Times in Teacher Education: Restructuring or Reconceptualizing?* (with Marv Wideen, Falmer Press, 1995)

Dr. Frank H. Echols is an Associate Dean for Teacher Education in the Faculty of Education at the University of British Columbia. He is a member of the Sociology Group in the Educational Studies Department and a member of the Provincial Supply and Demand Consortium. Teacher education, recruitment, and selection have been long-term interests. He teaches in the Ed.D. Educational Leadership program and is currently working with the British Columbia College of Teachers on a survey of recent graduates.

Dr. David Dibbon is a recognized leader in the Newfoundland education community. He is currently an Assistant Professor with the Faculty of Education at Memorial University of Newfoundland and former Principal of Bishops College in St. John's. While he was principal, Bishops College was recognized as an innovative school by the Canadian Network of Innovative Schools and selected as a national winner in the Conference Board of Canada's Partners in Education program. His creative and innovative leadership has been recognized by the Canadian Association of Principals with their Distinguished Principal Award for 1999, and he is a former recipient of the Fortis Leadership Award for Newfoundland and Labrador School Administrators (1994).

During the past year, Dr. Dibbon has been working on The Human Resources: Education Labour Market Study in the province of Newfoundland and Labrador and has conducted extensive research on the issues surrounding the supply of and demand for teachers.

Christian Dea, who holds a Master's degree from the University of Montreal, is currently the Director of the Socio-economic Studies Unit of the Applied Research Branch of the Strategic Policy Branch at Human Resources Development Canada. Mr. Dea has comprehensive experience in many research and policy areas within the federal (Human Resources Development Canada, Bank of Canada, Department of Finance) and provincial (Department of Finance) governments.

Mr. Dea's unit is involved in many activities relating to the economic and social health of Canada. Activities of the unit include monitoring of the labour market, forecasting the future industrial and occupational structure of the Canadian economy, research and analysis (impact of ageing, returns to education, determinants of education, occupational monographs, job quality, etc.), production and dissemination of labour market information (Job Futures) and is involved in numerous federal/provincial/territorial partnerships.

Dr. François Larose is a full professor in the Faculty of Education, University of Sherbrooke. Professor Larose holds a Ph.D. in Educational Psychology from the Faculty of Psychology and Education Sciences, University of Geneva. His research focuses on two areas: school and social resiliency factors in preschool and school-age children from low SES or Aboriginal communities; and ECE and elementary teachers' classroom presentations and practices in connection with the integration of ICTs in the classroom.

Dr. Tara Fenwick is an Assistant Professor in Educational Policy Studies at the University of Alberta. Her research in professionals' learning explores relationships between individual and collective change, identity and socio-cultural contexts. Aside from several articles and chapters, she has published two books with McGraw-Hill Ryerson, recently co-authored *The Art of Evaluation: A Handbook for Educators and Trainers* with Jim Parsons (Thompson), and has two more publications forthcoming: *Experiential Learning: A Critique from Five Perspectives* (ERIC monograph) and *Socio-cultural Perspectives of Workplace Learning* (Jossey-Bass).

Dr. Alan Yackulic is an associate professor of Educational Psychology and Special Education at the University of Saskatchewan, with teaching responsibilities in research methods, assessment, and learning. His recent research has focused on standard setting, instrument validation issues, and application of advanced statistical techniques. Additionally, Dr. Yackulic provides consulting services for governments and school boards in areas such as data management and analysis, curriculum evaluation, instrument construction, instrument validation, and development and management of computerized test banks.

Dr. Brian Noonan holds graduate degrees from the University of Saskatchewan and the University of Ottawa and is a former Superintendent of Education with the Saskatoon Catholic Schools. His research interests include learning and assessment, educational evaluation and policy analysis, and opportunity-to-learn. Dr. Noonan is an Assistant Professor in the Department of Educational Psychology and Special Education, University of Saskatchewan.

Dr. Tom Russell began his science teaching career as an untrained volunteer teacher in Nigeria, and therein lie the roots of his professional interest in the power of learning from experience. After his Ph.D. studies in Toronto and three years working with experienced teachers in Ottawa, he has taught at Queen's University for the last 24 years. He has become increasingly interested in the complexity of the pre-service learning experience and the transition from student to teacher. Major themes of his research include the development of reflective practice and understanding the importance of how we teach. His most recent research is focused on the impact of radical program change on those learning to teach and those who teach pre-service candidates.

Dr. Robert B. Macmillan is Associate Professor and Coordinator of the Bachelor of Education (Secondary) program at St. Francis Xavier University. His interests lie in school culture, community-school relationships, and leadership succession. He received his Ph.D. from the Ontario Institute for Studies in Education of the University of Toronto.

Dr. Matthew J. Meyer is an Assistant Professor of Education at St. Francis Xavier University. He specializes in using the performing arts in educational research, in professional development for teachers and administrators, and in educational leadership. He received his Ph.D. in educational administration from McGill University, Montreal.

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Dr. Trent Keough is currently Director of Programs (Vice-President Academic in other jurisdictions) at the College of the North Atlantic, Newfoundland and Labrador's public college. Dr. Keough pursued his doctorate at Queen's University in the area of postmodern Canadian literary culture. He also holds an M.A. in English and an undergraduate degree in Political Science from Memorial University of Newfoundland.

His written works have appeared in *Mosaic*, *Open Letter*, and *Utopian Studies*. He has presented numerous papers throughout Canada and the United States on such varied topics as: the role of the educational administrator in the contemporary era; existential phenomenology; Canadian nationalism; intentional societies; and Sartre's influence on postmodernism. During the 1998-99 year, Dr. Keough held a Kellogg Foundation Fellowship for executive leadership training with the League for Innovation in the Community College, University of Austin, Texas.

Brian Tobin is Chair of Student Development and Special Projects, College of the North Atlantic, Newfoundland and Labrador. Mr. Tobin holds a B.Sc. and B.Ed. from Memorial University of Newfoundland and an M.Ed. from the University of Ottawa. Mr. Tobin provides leadership for Counselling Services, Library Services, Services to Students with Special Needs, and Student Affairs and Employment Services in the provincial college. He also has administrative responsibilities for the College's Adult Basic Education program and the College/University Transfer Year. Mr. Tobin has

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