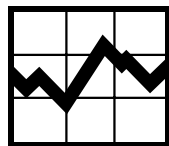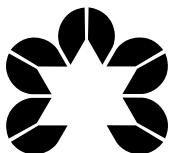# REPORT ON THE PAN-CANADIAN EDUCATION RESEARCH AGENDA SYMPOSIUM

Canadian Education Statistics Council

PCERA SYMPOSIUM
February 16-17,1999
OTTAWA, ONTARIO

TABLE OF CONTENTS

A BRIEF HISTORY

The Canadian Education Statistics Council (CESC), a partnership between Statistics Canada and CMEC, initiated the Pan-Canadian Education Research Agenda (PCERA) to bring attention to issues in education that are a common concern to researchers, policy makers, and practitioners across Canada. The current research priorities of the PCERA were defined through a process of consultation with ministries and departments of education as well as through the work of an advisory committee of education researchers and government officials. CESC organized the PCERA Symposium to promote dialogue and convergence among the different partners in education on the direction that research on these priorities might take and to explore possibilities for realizing the agenda.

In early August 1998, CESC circulated a request for proposals to the education research community. Researchers were asked to write a proposal to develop a 6000-word paper that both reviewed the current state of research and proposed research questions for a pan-Canadian agenda on any one of the priority subjects that constituted the PCERA. Seventy-three proposals were received; a review by the advisory committee resulted in thirteen of these being chosen for development on seven subjects. One team withdrew from the project; twelve papers were completed and presented at the PCERA Symposium.

INTRODUCTION

 The PCERA Symposium took place February 16-17, 1999, at the Simon Goldberg Conference Centre, in Ottawa. It attracted over 80 participants representing various stakeholder groups in education including policy makers, researchers, practitioners, and funding organizations.

Bruce Petrie of Statistics Canada, Assistant Chief Statistician, Social Institutions and Labour Statistics, greeted the participants and spoke of the partnership between Statistics Canada and the Council of Ministers of Education, Canada (CMEC). Paul Cappon, Director General of CMEC also welcomed the assembly and provided an overview of the proceedings, the history, and the objectives of the PCERA. In addition, Paul Cappon served as the chair for day two of the symposium. Other representatives from Statistics Canada taking part in the symposium included Scott Murray, Director, Culture, Tourism and the Centre for Education Statistics, who was chair on day one of the symposium and Michael Wolfson, Director General, Institutions and Social Statistics Branch, who provided summaries of the discussions.

DISCUSSION AT THE SYMPOSIUM

The symposium was structured around seven subjects within five sessions:

> Session 1: **"The Link Between Education and the World of Work"**
> Session 2: **"Learning Outcomes"** and **"Teacher Education"**
> Session 3: **"Technology"**
> Session 4: **"Citizenship and Social Cohesion"** and **"Diversity and Equity"**
> Session 5: **"Special Needs Programming"**

Each session began with brief presentations by authors and respondents. Then, participants were engaged in group discussions, which resulted in the identification of key research questions pertaining to each of the PCERA subjects. Diverse viewpoints provided an interesting and challenging edge to the discussions. A synthesis of the outcome of group discussions was compiled with the assistance of symposium facilitator Monty Doyle. At the close of the symposium, a panel of experts discussed how to balance priorities and move the agenda forward.

REPORT ON THE PCERA SYMPOSIUM

This volume contains summaries of the commissioned papers,[1] the authors' and respondents' presentations, and the key research questions identified for each of the seven PCERA subjects. It also includes the outcome of the panel session and the closing speeches given by Michael Wolfson and Paul Cappon. The appendix of the report includes keynote speeches by Jean-Pierre Voyer, Director General, Applied Research Branch, HRDC, and Charles Ungerleider, Deputy Minister of Education, British Columbia – representing the chair of CMEC – as well as the list of research questions proposed by the commissioned authors. The Report on the PCERA Symposium is also available from the CMEC Web site at www.cmec.ca.

---

[1] The commissioned papers are being prepared for publication in a special edition of the *Canadian Journal of Education* in fall 1999.

Two papers were commissioned on the subject of the Link Between Education and the World of Work. Patrice de Broucker was the respondent for both of these papers.

"Schools and Work: Towards a Research Agenda"
Prepared by Benjamin Levin

Dr. Levin's paper focuses on current knowledge in this field, current research capacity, possibilities for increased research capacity, and a focused research agenda on the links between schools and work.

In the first section of the paper, Dr. Levin comments on the political, economic, and educational context around labour market issues and their link to schooling. Although issues such as the economic role of schooling and the skill demands in the economy are addressed, he calls attention to a critical fact "that education is only one influence on employment patterns with technological and macro-economic factors playing a much larger role."

The second section of the paper focuses on the research capacity in Canada. The author lists key elements requisite for strong policy research capacity as well as demonstrating Canada's weak position in this regard. The key elements are as follows:

- a set of skilled and experienced researchers who focus on the issue in question over a long period of time
- adequate funding to sustain this research on an ongoing basis
- high-quality pan-Canadian databases that allow researchers to address important questions without huge additional data-collection efforts
- good networks among researchers across disciplines, across regions, and internationally
- well-developed connections between researchers, practitioners, and policy makers
- vehicles that promote synthesis and application of knowledge as well as the creation of new knowledge
- patience, as the results of good research require long-term commitment

The subsequent section of the paper provides a review of existing research on the labour market, students' backgrounds, the school system, and the transition process. The final two sections comprise Dr. Levin's proposed key research issues as well as requirements for developing research capacity in Canada.

Benjamin Levin is a professor of Educational Administration and dean of Continuing Education at the University of Manitoba. He is the author or co-author of three books and more than 50 articles on issues of education policy and economics. His work on this project was supported by SSHRC through the Western Research Network on Education and Training (WRNET). *levin@electra.cc.umanitoba.ca*

PRESENTATION – Benjamin Levin

During his presentation at the symposium, Benjamin Levin addressed the need for more consistency between the rhetoric in this field and the evidence. As an example, he pointed to the lack of evidence of a skills gap, which is in direct contrast to the belief that there are not enough skilled people to fill jobs. He also highlighted the need for increased capacity for research in Canada in order for any improvements in educational research to occur. He argued that there is a clear resource gap in this area — an area that is knowledge-based — as not even one-tenth of one per cent of gross expenditures goes to education research. He also added that this is a reality faced not only by Canada but by most countries. Dr. Levin also added that money is not all that is needed to increase research capacity in Canada. Creating increased capacity would also include the existence of high-quality pan-Canadian databases permitting researchers access to large amounts of data while minimizing their collection efforts; focused and coordinated research, including interdisciplinary approaches to the issues; and effective dissemination and application of research.

RESPONSE – Patrice de Broucker

Patrice de Broucker expanded the scope of the research questions proposed by Dr. Levin by suggesting the following points. First, there needs to be a definition of a successful transition. Second, demand-side factors, such as knowing what employers want and factors contributing to employability, as well as recruitment, training policies, and practices of employers, need to be looked at. Third, there is a need to determine the role of schools in labour market adjustments through reconciling the various goals of education, schools, and teachers. Collecting and analysing best practices and "interesting experiences" of schools were also recommended. Last, the need to look at how other countries are facing the transitions issue was raised. Dr. de Broucker went on to recommend forging partnerships with existing or emerging research structures in order to gain further knowledge in this field and also to "ensure Canadian presence and contribution."

Patrice de Broucker is Chief of Integration, Analysis and Special Projects at the Centre for Education Statistics. He is directly involved in several aspects of research on the dynamic between school and the world, having developed a new longitudinal study on Youth in Transition as well as surveys of graduates, and having actively participated in the OECD network on education and the working world. He also spearheaded the endeavours of the Working Group of the Canadian Labour Force Development Board which, in 1994, produced the report entitled *Putting the pieces together: towards a coherent transition system for Canada's labour force.*

"I Know How To Do It: Research Priorities for Cooperative Education and Career Education in Canada's Secondary Schools"
Prepared by Hugh Munby, Nancy Hutchinson, and Peter Chin

This paper focuses on cooperative education and career education involving workplace learning, all at the secondary school level. Since the authors view cooperative education as "inherently part of the secondary school curriculum," they use the "curriculum perspective" as the basis for their literature reviews and analyses, and also for determining research questions for this topic. The perspectives they use are Curriculum in the Workplace, Knowledge and Learning, Inclusion and Students, and Assessment.

PRESENTATION – Hugh Munby

During the presentation at the symposium, Dr. Munby raised three key points on cooperative education: first, that there is no consistent view of what cooperative education is; second, that cooperative education is teaching something but those involved may not know exactly what or why; and third, that the playing field must be level from the students' point of view by directly addressing issues of curriculum. He described cooperative education as a cooperation between schools and community that provides youth with valuable workplace experience through gaining understanding about the workplace, learning about the relationship between knowledge acquired in the classroom and knowledge acquired in the workplace, and sampling possible careers and vocations. Because of cooperative education's potential for helping youth prepare for the world of work, Dr. Munby pointed to the need for more research in this area.

RESPONSE – Patrice de Broucker

Additional comments made by Patrice de Broucker, on the paper and research questions by Hugh Munby et al, pointed to the need to first ensure the intrinsic value of integrating workplace experience in the secondary school curriculum. Dr. de Broucker argues for the need to demonstrate clear and unarguable benefits in integrating education and work during secondary school, including assessing both educational and labour market outcomes of cooperative education. In addition, he argues for the need for cooperative education programs to have well-defined structures as was also recommended by the transitions task force of the Canadian Labour Force Development Board. Moreover, he pointed to the need for the elements of cooperative education to be established and organized, such as what level of tutoring is appropriate in the workplace; how to bring back lessons learned from the workplace into the classroom; and how to define meaningful experiences in the workplace.

Hugh Munby is a professor in the Faculty of Education, Queen's University. He teaches graduate courses in research methods and has conducted research in science education and teacher education. With colleagues Nancy Hutchinson and Peter Chin, he is conducting a program of research in co-op education, which is funded by SSHRC. *munbyh@educ.queensu.ca*

Peter Chin is an assistant professor in the Faculty of Education at Queen's University, where he teaches undergraduate and graduate courses in science teacher education. His research interests are in teacher education, science education, and cooperative education contexts with a science focus.

Nancy Hutchinson is a professor of Educational Psychology and Special Education in the Faculty of Education, Queen's University. Dr. Hutchinson has conducted research with exceptional populations and is co-author of a five-volume career education program titled Pathways.

KEY QUESTIONS IDENTIFIED DURING SESSION 1:
THE LINK BETWEEN EDUCATION AND THE WORLD OF WORK

What role can/should schools play in assisting in the labour market adjustments? Similar to what was proposed in Benjamin Levin's question 3, most of the groups recognized the need for a general understanding of the goals of education and teaching and what is expected of schools and teachers with respect to transitions to the labour market. Groups also raised additional questions in the same vein, including whether or not schools are best suited and/or structured to play a role in the labour market adjustment. Suggestions such as looking at best practices were made, as were comments on Dr. Levin's question 5, *What alternative structures or practices within and outside of Canada are in place to assist the transition from school to work.* Moreover, groups pointed to alternative structures within and outside of schools such as partnerships with community and the private sector.

What are the factors contributing to a successful transition to the labour market, taking into account skill sets, personal attributes, and other factors? Similar to what was proposed by Dr. Levin in his question 1, this issue came up a number of times during the discussion period and in the written comments. It was also broadened to include the strategies and experiences of equity groups including visible minorities, students with disabilities, Native groups, and francophones outside of Quebec.

Questions in the same vein that arose from the written comments include what factors of schooling relate to success in the workplace and in postsecondary education; how do people find jobs given the changing workplace; and what are the skills needed to be successful? The majority of groups also included a question on *what skills people use at work* (Benjamin Levin's question 4) and how these skills are acquired.

Another related issue raised by a number of groups in both the discussion period and in the templates, was that of *students' expectations of a successful transition and how schools mediate between them and the labour market structures.* One group pointed to the need to address students' expectations at an early age.

These questions also touch upon another issue that was also raised — that of the *employer's role in labour market adjustment* — what it is and what it should be. In addition, there needs to be an increased understanding of demand, employability, and factors including recruitment and training practices, in order to ensure a greater balance between supply and demand.

What is the definition of successful transition(s)? A number of participants raised this question in the discussion and in the written comments, as did Patrice de Broucker, the respondent. Moreover, it was raised that given today's culture of lifelong learning, as also mentioned by Jean-Pierre Voyer in his keynote address, we should be looking at multiple transitions and not simply the school-to-work transition in the singular sense. Additionally, it was also noted that we should not consider transitions in a linear fashion since they are more cyclical in nature because of a coexistence of work and learning.

What paths are youth, of all abilities, taking? We need to pay more attention to all paths taken by youths after school in order to get an understanding of the logic and strategies involved in decision-making as well as the obstacles they face. This question is especially relevant to groups that may have a harder time shifting to the world of work. As suggested by the participants, authors, and the respondent, baseline data and longitudinal studies would therefore prove very beneficial.

Discussants also pointed to the need to sort, select, and disseminate research results in order to facilitate their use by decision-makers and practitioners. The system of ERIC clearinghouses in the USA, with its capability to search for information in the area of education in a systematic manner, was raised during the discussion as a prime

What are the factors contributing to a successful transition to the labour market?

example of an effective method of sorting and disseminating information. Furthermore, it was raised that there is not a strong enough commitment to research as the basis for decision-making and so the question follows, *how can we encourage the school sector as well as business to make research more of a priority?*

Cooperative education, career education, and apprenticeship programs were seen by many participants as among the numerous ways for schools to address labour market structures. A number of groups were in agreement with question 5 from the paper prepared by Hugh Munby et al, *examining ways in which cooperative education experiences can be assessed.* Additional questions on cooperative education included what its role is (e.g., whether these programs are intending to be equalizers and to ensure greater inclusion or whether they are functioning as networking vehicles, and, if so, are they successful in this role?). Furthermore, the majority of the groups, in the written comments, highlighted the need for more research on the labour market experiences including cooperative experiences of equity groups (Benjamin Levin's question 2 and Hugh Munby et al, questions 3 and 4).

There was a high level of unanimity among participants concerning the key questions raised on the subject of the link between school and the world of work. However, the following issues were raised:

- whether or not intrinsic value exists in the integration of workplace experience in the secondary school curriculum (i.e., cooperative education)
- whether or not additional research is needed in this area or more action needed on existing research
- the struggle between interest in empirical research and fundamental questions around purpose

What skills do people use at work, and how are these skills acquired?

KEY QUESTIONS IDENTIFIED DURING SESSION 1:
THE LINK BETWEEN EDUCATION AND THE WORLD OF WORK

What role can/should schools play in assisting in the labour market adjustments?

What are the factors contributing to a successful transition to the labour market?

What alternative structures or practices within and outside of Canada are in place to assist the transition from school to work?

What skills do people use at work, and how are these skills acquired?

What are students' expectations of a successful transition and how do schools mediate between them and the labour market structures?

What is the employer's role in the labour market adjustments and what it should be?

How can we encourage the school sector as well as business to make research more of a priority?

What is the definition of successful transition(s) given today's culture of life-long learning?

What paths are youth, of all abilities, taking? Baseline data and longitudinal studies are needed to follow the paths of all youth.

How can cooperative education experiences be assessed?

There is a need to sort, select, and disseminate research results in order to facilitate their use by decision makers and practitioners.

SESSION 2: LEARNING OUTCOMES

Two papers were commissioned on the subject of Learning Outcomes. Barry Anderson was the respondent for both of these papers.

"Learning Outcomes"

Prepared by Henry Schulz, Glenn Clark, and Robert Crocker

This paper examines a number of issues in relation to the following themes: (a) the identification and assessment of a broad range of learning outcomes; (b) modelling the factors that affect learning outcomes; and (c) the administration and use of corresponding assessments.

(a) The authors note the significant shift in goals by most provinces and territories to statements of goals as outcome, including outcomes going well beyond the core school subject areas that are typically the focus of large-scale assessments. The inference drawn from this development is that a policy shift is under way that seems to express a need to assess the achievement of nonconventional as well as conventional outcomes. However, the authors are quick to recommend a research effort designed to gauge the extent of public support for a much broader approach to assessment. Although the paper argues with supporting examples that outcome frameworks exist in a rather broad range of areas, and at a level appropriate to form a basis for assessment, the authors also make clear that considerable development work would be required to validate such frameworks in a pan-Canadian context and to prepare the necessary assessment tools.

(b) More centrally, the paper highlights specific research needs in relation to the key factors affecting learning outcomes, through an evaluation of specific models and projects involving educational indicators. The research issues arising in this context are (1) the need to consolidate existing large-scale surveys into a database that links achievement with the many variables on which data are being gathered; (2) the need to examine classroom processes more closely using observational studies; and (3) the need to extend the modelling of school learning to nonconventional outcomes and particularly to examine the possibility of conflict between conditions conducive to achieving different types of outcomes.

(c) The paper also highlights the pivotal role of teacher involvement in the assessment of a full range of outcomes, given that the performance components of many outcomes cannot be addressed by conventional large-scale assessments. The authors suggest that the efficacy of researchers' efforts would be significantly enhanced not only by employing the considerable assessment information amassed by teachers but also by recruiting teachers themselves as allies and collaborators in the ultimate objective of assessing a broader range of outcomes.

PRESENTATION – Henry Schulz

In his presentation at the symposium, Henry Schulz first focussed attention on the importance of meaningful two-way communication with the public as required to elicit and articulate the public's true interests on the matter of learning outcomes. He then argued the imperative of seeking to develop and utilize the best available models and methodologies to facilitate policy thinking and decision taking. In this way, he suggested that those concerned could perhaps begin to draw strong connections between the inputs and processes of the education systems, and the most meaningful of the learning outcomes sought. He argued that the methodological means are in place now to allow potentially worthwhile attempts at making such meaningful connections, connections that could now be broader than those posited by well-known large-scale assessments. Lastly, Dr. Schulz sought to address the issue of assessment outcomes and information vis-à-vis teachers, noting that classroom processes have the greatest impact on learning. In particular, he suggested that it would be highly desirable for teachers to make use of assessment results to enhance learning in the classroom, an uncommon practice at present. He also speculated about arriving at a point where in-class teacher-generated assessment information is generally employed in the system.

Henry Schulz is with the Faculty of Education at Memorial University of Newfoundland. He has worked with the Manitoba Department of Education as an assessment consultant and prior to that in the Department of Education Psychology at the University of Manitoba and as a teacher in Alberta. His interests are in classroom assessment practices and large-scale performance assessment. *hschulz@morgan.ucs.mun.ca*

Glenn Clark is with the Faculty of Education at Memorial University. He is a science educator with many years' experience working with students and teachers in science. He has a broad background in science and the theory of science. He also has an interest in assessment and currently teaches assessment courses to prospective teachers, as well as courses on science teaching and research. *gclark@morgan.ucs.mun.ca*

Robert Crocker is with the Faculty of Education at Memorial University. He is a former Dean of the Faculty and Associate Deputy Minister with the Newfoundland Department of Education. His current research interests are in policy studies, large-scale assessment, and the determinants of achievement. *rcrocker@morgan.ucs.mun.ca*

"Measurement of the Full Scope of Learning"
Prepared by R.A. Yackulic and B.W. Noonan

This paper notes the following consensus: that provincially and territorially set goals for education identify a "full scope of learning" (comprised of learning outcomes well beyond and including traditional areas of academic achievement) as the mandate for schools. This commitment by policy to the full scope of learning leads the authors to ask the central question: how do educators measure and set standards for this expanded view of intended learning outcomes? In order to address this question, the paper explores current theories of learning, examines principles and practices of student assessment, and reviews the concept of opportunity to learn (OTL).

PRESENTATION – Alan Yackulic

In his presentation, Alan Yackulic began by drawing listeners' attention to the substantial gap between the goals of education, which are expansive, and the present available capacity to assess and monitor those goals systematically, which is very limited. He made an effort to accentuate how important it is for all concerned to strive toward a complete understanding of the full scope of learning. The risk of insufficient understanding and ignorance of any particular educational goal within the broader, fuller framework is that policies may evolve that actually inhibit its attainment. To illustrate his point, Dr. Yackulic chose to describe the following example from his paper to highlight this inherent risk: the video surveillance camera installed to improve safe learning environments at school may actually compromise the development of self-discipline in students, if students consequently transfer responsibility for acceptable behaviour from themselves to, say, the principal observing them through the camera. As for the actual assessment of recognized goals, Dr. Yackulic stressed the importance of guarding against invalidity through the measurement of artificial reflections of true goals. On the topic of opportunity to learn, he argued the need for research exploring opportunity to acquire outcomes, in order to qualify simple outcome measurements. Lastly, given that most teachers are unaware of the research and resultant informational resources available to them, Dr. Yackulic expressed concern about the validity of recognized learning outcomes. Accordingly, he wondered how the system could monitor whether or not attention is being paid to these outcomes by the very practitioners who matter most.

Alan Yackulic is an associate professor of Educational Psychology & 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. *alan.yackulic@usask.ca*

Brian Noonan is an associate professor with the Department of Educational Administration and the Department of Educational Psychology & Special Education at the University of Saskatchewan. He is a former superintendent of education with the Saskatoon Catholic Board of Education. His interest is in policy and practice in educational measurement and evaluation. *noonan@duke.usask.ca*

RESPONSE – Barry Anderson

In responding to these two papers, Barry Anderson began by making two observations: first, disagreement about the broad goals of education arises when attempts are made to measure them; and second, both papers allude to the subject of cognitive development and its importance in developing outcome measurements of student performance. He then went on to suggest that perhaps many of the outcomes that educators hope to observe in students do not actually emerge until those students become adults. Therefore, Dr. Anderson argued, perhaps asking schools to develop these outcomes and other professionals to measure them, represents a bigger challenge than those concerned should admit.

Dr. Anderson then moved his discussion to the level of the school and the teacher. First, he argued that the highly primitive state of school management systems dictates that schools do not make use of available data, research results, and other potentially useful information in taking decisions. This lack of capacity points to a real challenge for efforts designed to ensure that outcomes are actively employed in schools. Second, he made the point that to develop measures on a broad range of student outcomes in the absence of meaningful teacher involvement would be misguided. In support of this contention he claimed that contemporary testing of Grade 12 students in Alberta and BC has been very effective at improving instruction at schools because teachers were actively involved in the preparation, marking, and reporting of the results, and moreover that the tests had a bearing on the curriculum. Third, Dr. Anderson offered the point that large-scale testing programs like SAIP and TIMSS are utterly irrelevant to the individual teacher, for example, in BC, because teacher commitment to the standards embodied in those tests does not exist. Moreover, he argued, teacher training programs are totally inadequate in terms of preparing teachers to use quantitative and empirical measurements.

Dr. Anderson made two other points. One, the financial resources required to pay for work done on indicator use and development will have to be solved at the federal, not provincial/territorial level, given that education ministries and departments are not committed to research. Second (in relation to the topic of opportunity to learn), one should consider the role of schools very carefully: to talk about schools playing an equalizing function in society is to invite difficulty, given that schools play an important role in segregation as opposed to equalization.

Finally, Dr. Anderson stated in summary that to move schools to an era where a broad range of learning outcomes is measured is to move them from management of inputs and processes to management of outcomes attained. He wanted to make clear his view of how difficult a move he thought this actually represented, and how important the development of suitable measures will be to accomplish it.

Barry Anderson is Director of the Aboriginal Education Initiative in the B.C. Ministry of Education. He has worked in several areas of the ministry, including data management, research and analysis, finance, and examinations and assessments. He has been seconded from the ministry to the Premier's Office, the B.C. Trade Development Corporation, the Third International Study of Math and Science, and to Statistics Canada. Prior to joining the ministry in 1983, he was Professor of Education and Director of the Graduate Institute of Education at Washington University in St. Louis, Mo. His doctorate is from the University of Toronto.

What is the ultimate objective of outcome measurements and what precisely is being measured by them? Are present outcome measures/definitions appropriate indicators? These are the underlying questions raised by many participants in the discussions as well as in their written comments. Some participants also pointed to the importance of addressing the goals of education and linking them to measurement outcomes that incorporate a fuller scope of learning (similar to Alan Yackulic and Brian Noonan's question 1). Participants added that encompassing a fuller scope of learning should entail going beyond an exclusive focus on labour market outcomes and successes to address, for instance, outcomes on human development, social development, and quality of life. Participants also noted, however, that outcomes based on a broader scope of learning are inherently more difficult to define and measure. On the other hand, many participants questioned the value of traditional subject-centred testing as a means of conveying information beyond that of traditional academic success.

Many participants, in the discussions and written comments, questioned the level to which assessment for accountability is linked to assessment for improved student learning (Alan Yackulic and Brian Noonan's question 4); moreover, they stressed the need for greater linkages.

It was raised during the discussions that effective and valid indicator systems need to incorporate whole system measurement through the measurement of not only the outcomes but the inputs and processes as well. As pointed out by Henry Schulz, *How do we draw strong connections between the inputs of our systems and the processes, and link them to the most meaningful learning outcomes?*

There were many comments put forward on the use of existing data, information (on teacher morale and class size, for example), and outcome measurements*: How are they being used?* and *How can we make better use of them?* More specifically, participants in the discussions highlighted the need for the data to be in a user-friendly format and for the data to be broken down in such as way as to allow the users to extract the information that they need. As pointed out by a participant, "the questions of researchers are not always the questions of practitioners." Participants also highlighted the need for both quantitative and qualitative data.

Improvements, however, need to occur on the receiving end as well. As raised by participants in the discussion, there needs to be processes in place to facilitate accessibility to the information*: What are the processes through which the information reaches school administrators, teachers, and students, and how do they filter this information?* Participants as well as the respondent, Barry Anderson, stressed the unacceptable level of teacher training in quantitative and empirical measurements. This issue is especially significant in light of the need for intensive recruitment and replacement of teachers, which therefore leads to the risk of having even less qualified and experienced teachers in the classrooms. Schools also need to increase their capacity for processing and receiving information.

Are learning outcomes universally applicable and generalizable to all students? The way in which outcomes address underrepresented groups and students with special needs and the issue of all students meeting the same standards was highlighted during the discussions. *Why do we have to define an outcome that everybody should fit?* A participant argued that having the same outcomes for all students places unfair limitations on those learners with special needs. Another participant cautioned about the risk of categorizing students and suggested that different approaches of obtaining the outcome information should be considered instead.

> *What is the ultimate objective of outcome measurements and what precisely is being measured by them?*

Participants mentioned that some of the areas of learning such as democracy and citizenship education are not easily measured, and reducing them into measurable units weakens their objectives, concepts, and ideologies. Alternative ways of looking at student improvement in these areas were suggested by looking at participation in school councils, truancy levels, the effect on vandalism, etc. Schools themselves also have to play their part by promoting a democratic system through the policies and processes they have in place for the students, teachers, and administrators.

There was debate on making better use of existing information instead of compiling more or different types of data. Similarly, agreement was not reached on whether a fuller scope of learning needs to be assessed or whether the results of current assessment should be looked at in a broader and richer manner instead of conducting additional assessments on other types of learning. There was also debate on the relevancy of large-scale testing.

KEY QUESTIONS IDENTIFIED DURING SESSION 2: LEARNING OUTCOMES

What is the ultimate objective of outcome measurements and what precisely is being measured by them?

Are present outcome measures/definitions appropriate indicators?

We need to address the goals of education and link them to measurement outcomes that incorporate a fuller scope of learning.

In what ways are assessment for accountability and assessment to improve student learning linked?

How do we draw strong connections between the inputs of our systems and the processes, and link them to the most meaningful learning outcomes?

How is assessment and outcome information being used and how can better use be made of it?

What are the processes through which the information reaches school administrators, teachers, and students, and how do they filter this information?

Are learning outcomes universally applicable and generalizable to all students?

Are learning outcomes universally applicable and generalizable to all students?

"Professional Knowledge and Education Training"
Prepared by Maurice Tardif in collaboration with Clermont Gauthier,
Diane Gérin-Lajoie, Yves Lenoir, Claude Lessard, Daniel Martin,
Donatille Mujawamariya, and Joséphine Mukamurera

This report studies the main trends, issues, and challenges relevant to the current education training systems in Canada through the examination of professional knowledge (knowledge, expertise, skills, and attitudes). This is accomplished in two parts.

The first part of the paper summarizes recent developments in the education community in Canada and their effect on the training offered to teachers, along with the training requirements and the needs of future teachers. The increasingly complex reality facing teachers and its impact on teachers and teacher training programs is the main focus. Here, the authors ask, "What do future teachers need to learn, know, and master today to teach efficiently to improve the learning process for students, and to meet their increasingly diversified needs?"

The paper's main argument is that teacher training should be viewed as continuous professional training and so the requisite university degree should be only a preliminary step in the process. After practical training in the school system, alternating phases of work and phases of continuing learning should ensue and spread over most of the length of the teacher's career. The authors also identify the movement towards the "professionalization" of the teaching profession and the obstacles hindering its progress.

The second part of the paper highlights current aspects of teacher training, specifically the different approaches used (e.g., applicationist perspective, emphasis on subject matter, the professional training model) and areas needing more attention in training programs. These areas reflect the social and cultural realities including students from underrepresented groups, education training in minority settings, increasing poverty among families, and new information and communication technologies.

The underlying recommendation, however, proposes the implementation of research projects throughout Canada in an effort to first have a better understanding of the education training systems and their processes (models, principals, stakeholders, practices, mechanisms, resources, etc.) and then to identify innovative practices having a positive effect on teacher training. The authors nonetheless provide 16 recommendations for improving teacher training in Canada, and they are organized as follows. The first six recommendations revolve around the need to come to an understanding of the transformations taking place in the education community and their effect on school life and the work of teachers; recommendations 7 through 11 follow the analysis of approaches used in teacher training programs; and the remaining five fall under the section on areas needing more attention in teacher education programs.

Maurice Tardif is a tenured professor at Université Laval (Quebec), and director of the Centre interuniversitaire de recherche sur la formation et la profession enseignante, comprising researchers from eleven Canadian universities. Over the years, his work has focused on the evolution of the teaching profession, teacher training, and the work of teachers. Since 1990, he has headed the SSHRC and FCAR research programs. His research today focuses on the knowledge that forms the basis for instruction. *maurice.tardif@fse.ulaval.ca*

PRESENTATION – Maurice Tardif

In the presentation, Maurice Tardif explained the reasoning behind having 16 recommendations as opposed to simply five like most of the other authors. He felt it necessary to have research supporting the need to more fully understand the subject of teacher training by linking it directly with the teaching profession. He argued the need for gathering more information on the conditions of teaching across Canada in light of the lack of knowledge in this area.

Dr. Tardif reflected upon the complexities faced by teachers and correspondingly the complexities inherited by the teaching profession and also by the realm of teacher training. Here, he referred to the question raised in his paper regarding what knowledge base future teachers should have in order to teach effectively. He emphatically pointed to the connection among the various topics concerning education — many part of the symposium as well — with teacher training. Moreover, he highlighted the need to increase links between the various stakeholders of education and to provide opportunities to bring them together. He cited the PCERA symposium as a unique opportunity and a prime example of the type of forum that should take place on a regular basis.

RESPONSE – Jocelyn Berthelot

Jocelyn Berthelot began his response by complimenting the paper's synthesis of the issues confronting the teaching profession. Nonetheless, he added his own view on the context of the issue in question. He argued for a more decentralized outlook on education by highlighting that education is constitutionally under the jurisdiction of the provinces and territories. He furthermore sought to address the need for research to be carried out within the boundaries of the provinces/territories in order to ensure the collection of relevant information. That is not to say there is no value in comparative research, but he candidly voiced the need to distinguish between local and general educational issues.

Mr. Berthelot then made his remaining comments on the recommendations proposed by Maurice Tardif et al. First, he commented on the magnitude of the research proposed by the authors. He pointed to the redundancy of recommendation 5, as he considered the existing ministries and departments of education to be "the ongoing laboratories studying changes in education and education training." He again argued the importance of provincially and territorially based research projects in building a database on the teaching profession and in facilitating comparative studies between the jurisdictions, implementing longitudinal studies, identifying innovative practices in teacher education, synthesizing research on education knowledge, and reviewing the state of professional development (recommendations 1, 2, 7, 8, and 16).

To finish, Mr. Berthelot argued the imperative of undertaking research not only on the teachers and their profession but *with* them and their representatives, mainly the Canadian Teachers' Federation.

Jocelyn Berthelot is a researcher at the Centrale de l'enseignement du Québec (CEQ), and an associate researcher at the Centre de recherche et d'intervention sur la réussite scolaire (Université Laval, Québec). He is the author of several studies on elementary and secondary education. His latest book, entitled *Une école de son temps - Un horizon démocratique pour l'école et le collège* (1994), outlines orientations for the overhaul of the education systems.

KEY QUESTIONS IDENTIFIED DURING SESSION 2:
TEACHER EDUCATION

Most of the groups offering comments on "Teacher Education" were in agreement with the authors' first recommendation on building a pan-Canadian database on the teaching profession including innovative teacher practices (also touched upon in recommendation 7), teacher training, and school environments. The availability of both qualitative and quantitative data was deemed necessary by the participants.

In addition, most of the groups pointed to the importance of having access to the results of the research. This would in turn allow educational stakeholders the ability to incorporate findings to improve and update teaching and training methods in a timely manner (recommendations 3 and 4). Furthermore, as outlined in recommendation 8, the results of the research should be synthesized to facilitate its use and integration into training programs and into the classrooms.

What are the exemplary models of teacher education, and what can we learn from the professional development of other professionals?

An integral point raised in the paper and during the discussions is the need for teacher training to have a continuing educational element. Participants added that an artificial distinction should not exist between pre-service training and the professional development of teachers. Moreover, teacher education should not be considered solely a pre-service issue.

As highlighted in the paper, the issue concerning the increasing complexity of the teaching profession and its effect upon teachers was raised during the discussions and in the comments. Questions on *what is the new and emerging role of teachers* and *what processes will be needed to realize this new role* were raised. The relationship between assessment and teaching was also addressed by participants, namely *whether or not teachers are equipped with the necessary skills for providing outcome measurements*. This question was considered very critical by the participants in view of a mass retirement of experienced teachers. A question regarding the impact of assessment on teachers, teacher training, and the teaching environment was also posed.

Comments from the groups were also made on researching ways of renewing the educational work force in Canada (recommendation 6) and attracting people who have not been traditionally represented in the teaching profession (recommendation 15); researching how other professions educate their members and how we can learn from these approaches; and promoting research on ways in which teachers across Canada address students from underrepresented groups (modification of questions 10 and 14).

There was some disagreement concerning the preparation of educational research on a pan-Canadian level. Jocelyn Berthelot argued the need to distinguish between general and non-general education issues and the need for research to be focused on issues pertinent to the jurisdictions. There was agreement with this perspective as participants pointed to the need for data on a provincial/territorial or even local level in order to facilitate the decision-making process. On the other hand, many participants agreed with Maurice Tardif's view that problems faced in education are faced by jurisdictions across Canada and that a commonality of educational topics exists among them. Other participants added the need to learn how the different jurisdictions address teacher training, among other education issues as well. This issue of jurisdiction is also very pertinent to Aboriginal education. As voiced by Paulette Tremblay during the discussions, a "national perspective" is needed to reduce the struggles between the provinces/territories, the ministries/departments of education, and the federal government.

KEY QUESTIONS IDENTIFIED DURING SESSION 2: TEACHER EDUCATION

What are the exemplary models of teacher education, and what can we learn from the professional development of other professionals?

We need to build a pan-Canadian database on the teaching profession including innovative teacher practices, teacher training, and school environments.

We need to synthesize the results of the research to facilitate its use and integration into training programs and into the classrooms.

What is the new and emerging role of teachers and what processes will be needed to realize this new role?

How can we equip teachers with the necessary skills for providing outcome measurements?

Teacher education should not be considered solely a pre-service issue.

What is the new and emerging role of teachers and what processes will be needed to realize this new role?

"Pan-Canadian Research Options: New Information Technologies and Learning"
Prepared by Margaret Haughey

Margaret Haughey's paper focuses on providing various examples of virtual schools, as well as on-line and distance education experiences in Canada. While the number of these instances is growing, Dr. Haughey argued that many of them can still be considered extensions of traditional classroom or distance education models. She emphasizes the significant potential of the new information technologies in restructuring and improving learning and teaching strategies instead of having them merely applied to current education models.

The paper also points to the gaps in knowledge concerning on-line programs in the following areas: technical, administrative, learning, content development, and teaching. Under the heading "technical," issues surrounding adequate infrastructure and connectivity were raised, as were issues concerning security. Administrative issues discussed in the paper focused on the economics and sustainability of programs in addition to the use of partnerships — both in the private and public sector — to provide economies of scale and reductions in costs. Research questions on the effect of "synchronous" and "asynchronous learning" and student learning and achievement corresponding to the use of new information technologies were raised under the heading of learning. The need to look at virtual program models not just as extensions of current education models but as a means of restructuring learning and pedagogy was identified under the heading of content development. Lastly, the paper pointed to the need for more information on teachers' needs (including suitable professional development opportunities) and teachers' attitudes towards the new information technologies.

PRESENTATION – Margaret Haughey

In her presentation at the symposium, Dr. Haughey reviewed the points addressed above. In addition, she voiced the need for a database on connectivity and funding information in order to facilitate ascertaining the impact of new information technologies. She also emphasized the need to look at academic outcomes relating to the new information technologies in addition to the satisfaction levels of students, teachers, and school administrators.

Dr. Haughey presented her views on how the use of the new information technologies can restructure and improve the provision of education by, for example, permitting teachers to address students at various levels of ability through customizing and individualizing their curricula. She also made the point that, although the introduction and maintenance of new information technologies in schools is expensive, the cost of forgoing its use must also be considered. To conclude, Dr. Haughey asserted anew the importance of viewing new information technologies as a tool with the potential to transform and enhance education.

Margaret Haughey is a professor in Educational Policy Studies at the University of Alberta. Her passion is distance learning, and she has been involved as an instructor, producer, and researcher of distance learning in the K-12 and postsecondary sectors for many years. She is the editor of the Canadian Association for Distance Education's journal, *JDE*, and her most recent work is *Networked Learning: The Pedagogy of the Internet.*
margaret.haughey@ualberta.ca

RESPONSE – Barry Carbol

Barry Carbol addressed Margaret Haughey's paper by first complimenting its review of the important trends in distance education and virtual schooling. He also expressed his view that the examples provided in the paper are not representative of the common school experience. He listed factors reflecting the common school experience including lack of support, connectivity, and access; uneven implementation; and weak training.

Dr. Carbol felt that more fundamental research questions needed to be addressed. He considered the question, "How core is technology to schooling, teaching, and learning?" to be a critical one. In addition, he felt the need to address the question of whether or not access to technology should lie within the construct of the public education system. In agreement with Margaret Haughey, Dr. Carbol also deemed critical issues surrounding scalability, sustainability, and the economics of new technologies. He also made reference to the question on student outcomes/achievement and the need to determine whether technologies do in fact make a difference in student learning and what differential in student learning justifies investment in the new information technologies. He expressed the need to develop a research agenda that looks beyond the false dichotomies of distance education/home-schooling/on-line learning versus in-school education, since a combination of all of these will likely emerge. He also commented on the teaching issue raised by Dr. Haughey and the need for more research on defining effective models that integrate technology with pedagogy and models of learning. Lastly, he noted the significance of the content development agenda and the need for the establishment of standards. In addition, he stressed the need to avoid reinventing the wheel by having technology reinforcing current teaching and learning practices instead of being used as an instrument for positive change.

Barry Carbol is the Chief Operating Officer of the Open School of the Open Learning Agency. In this position, Dr. Carbol heads a division with overall program development responsibility for the province's K-12 distance education system. The Open School has a mandate to support BC teachers, schools, and districts in their efforts to improve student learning. Prior to his move to the OLA, Dr. Carbol worked in the Ministry of Education for 13 years in a variety of director and executive director positions, including the Technology and Distance Education Branch, Program Development, Curriculum Development, Student Assessment, and Learning Resources. He holds a Ph.D. from the University of Alberta in educational psychology and master's degrees in curriculum and instruction and administration. Dr. Carbol was a teacher and principal in Alberta, and worked for the Alberta Department of Education prior to going to British Columbia in 1984.

"Technology Implies LTD plus FTE"
Prepared by Anne L. Jefferson and Susan D. Edwards

The paper prepared by Anne L. Jefferson and Susan D. Edwards focuses on four areas — Student Learning, Teacher Development [LTD], Funding, and Teacher Education [FTE] — and how they relate to technology in the school system.

Under student learning, the authors relate the results of studies showing positive relationships between the use of technologies in classrooms and student learning when higher order concepts are taught. As well, the authors cite research studies showing how technologies in classrooms have the capability to stimulate the development of intellectual skills such as reasoning, problem-solving, and creativity as well as increasing students' attention span. The authors state that the key to positive student learning experiences is the effective and appropriate use of the technologies by teachers. The importance of support for the integration of technology into teachers' work through the provision of continued professional development and proper teacher education during teacher preparation programs is highlighted. In the area of funding, the authors point to the high costs associated with the introduction of technologies as well as the costs for their maintenance. The maintenance of equal educational opportunities to technologies is also addressed in the paper.

PRESENTATION – Anne L. Jefferson

At the symposium, Anne L. Jefferson presented the paper along with the proposed research questions. She concentrated on the four areas mentioned above, including the following information. In the area of student learning, Dr. Jefferson voiced the need for a database on the level of thinking skills being taught through the application of technology. Under the area of teacher education, she commented on the current lack of technologically literate teachers stemming from inadequate teacher preparation programs. She suggested looking at alternative structures that have proven to be successful in teacher development programs, such as partnerships with private industry and ministries/departments of education. To sum up, Dr. Jefferson stated the importance of addressing the four areas in an integrated manner in order to achieve an effective strategy for technology in education.

Anne L. Jefferson is a professor at the University of Ottawa. Dr. Jefferson is an Education Finance Expert and Organizational Analysis Specialist. She is listed in a number of publications that recognize her professional accomplishments, for example, *Who's Who of Canadian Women* and *Canadian Who's Who*. Her research has reached across the role of founding editor of the *Journal of Educational Administration and Foundations* to the author of more than 120 publications. She has often been sought out as a speaker and has given more than 50 presentations across Canada, the United States, Australia, and Europe.
aljeffer@uottawa.ca

Susan D. Edwards is a vice-principal with the Upper Canada District School Board, Ontario. Ms. Edwards has been an educator and administrator within the school systems of British Columbia, Ontario, and Quebec. She has implemented information technology in the school system with an emphasis on student learning, teacher development, design environment, and community partnership issues. Her competence has been recognized through the awarding of the Helen Keefer Scholarship and the National Institute Northern Telecom Excellence in Education Award. Journals of publication include *International Studies in Educational Administration, Coaching Association of Canada, Fitness and Amateur Sport Canada,* and *Coaching Review.*
edwardss@ucdsb.on.ca

RESPONSE – Marita Moll

Marita Moll responded by disagreeing with the common assumption that a positive relationship exists between technology and student learning. She went on to state that recent studies and meta-analyses show both positive and negative results attributable to the use of new technologies in classrooms. In light of the ambiguities, she suggested more broader-based research questions. Furthermore, she stated that the research must not examine the impact of learning resources solely through the "narrow lens of new technologies." She further suggested the following research question:

How is student learning improved by the use of various learning resources and teaching styles, under what conditions, and at what cost?

Ms. Moll disputed the conviction that more teacher training involving new technologies would necessarily result in enhanced student learning. She argued that social, emotional, cultural, and gender factors needed to be considered in addition to the need for constant stability, reliability, and relevance of the new technologies. She then proposed the following research questions:

Why are some technologies more successful in the classroom than others?

What are the gender and cultural biases inherent in new technologies? What programs are in place to compensate for this?

Lastly, Ms. Moll focused on the costs of new technologies. She considered the estimate provided in the paper too modest and suggested that it would cost approximately $2,000 per student per year to support new technologies. Considering the notable increase in expenditures needed for the implementation and maintenance of new technologies, Ms. Moll recommended carrying out cost-benefit analyses. She also provided the following research questions:

How are technology-based enhanced programs evaluated by schools, school boards, and ministries/departments of education? What has been the cost of those considered to have had positive results? Negative or minimal results?

Marita Moll is the head of Research and Technology at the Canadian Teachers' Federation, a volunteer research associate for the Canadian Centre for Policy Alternatives, and a former member of the National SchoolNet Advisory Committee. She has written and spoken widely about the impacts of globalization and deregulation, facilitated by new technologies, on public services, especially education. She is the editor of *Tech High: Globalization and the Future of Canadian Education*, a set of critical essays in which leading Canadian educators present research and observations on the impact of new technologies on education.

Many comments — both written and oral — addressed fundamental questions such as *What role should new information technologies have in schools?* Another critical question raised was "What should be the relationship between new information technologies and pedagogy?" As mentioned by respondent Barry Carbol, the need for standards regarding the development of curricula in conjunction with the use of new information technologies was brought up during the discussions. Moral and ethical issues around technologies in education settings were also discussed. The need to agree upon the terminology and the meaning of "technology" or "new information technologies" was also questioned. In other words, a common working definition was sought: *What is technology?*

In their written and oral comments, many of the participants pointed to the transformational quality of new information technologies both inside and outside the classroom. Questions on this theme included *How do the new information technologies change the way students learn and the way teachers teach? How do they influence relationships between teacher, student, school administration, and society?* and *What is the impact of technology?* Moreover, as stated by author Margaret Haughey and respondent Barry Carbol, the potential of the new information technologies in transforming the delivery of education is great and has not yet been fully exploited. Correspondingly, the need to look at alternative uses instead of applying new technologies to traditional models of education was raised during the discussion.

A number of written and oral comments focused on questions regarding learning, such as *What kinds of learning skills are being used and developed through the use of new information technologies?* and *What types of learning are best supported by the application of new technologies?* Achieving positive learning experiences, as noted by Margaret Haughey, requires proficiency in the use of new information technologies on behalf of teachers. The lack of adequate training in this area was acknowledged by many of the participants. *How can we equip our teachers with the necessary knowledge and skills?*

As with many of the subjects discussed at the symposium, the need for baseline data and best practices was deemed critical by many of the participants. The availability and use of new information technologies in schools and in teacher education and the need for longitudinal studies to measure their impact was also noted. In addition, many of the participants pointed to the need for more rigorous studies on the cost of providing and maintaining new information technologies in schools and studies on the cost-effectiveness of new information technologies at different school levels (Ann Jefferson's question 3 and Margaret Haughey's question 2). The importance of flexibility of research was also raised in order for the findings to be used and implemented in a timely manner.

Related to the availability of new information technologies is the issue of equitable access. Many participants in both their oral and written comments addressed this issue. Questions they offered included *What is the effect of new information technologies on social inequalities* and *How can equitable access be ensured?* (similar to question 5, Jefferson and Edwards). Comments were provided by participants on the importance of fostering relationships with the private sector and with local communities as means of improving access to new information technologies (Jefferson and Edwards, question 4, and Margaret Haughey's question 3). There was, however, some skepticism regarding the role of the private sector in the public school system.

Questions concerning the importance of technology in the scope of learning and its place on the policy agenda were debated. With disputable proof of the benefits new information technologies have on learning outcomes with people historically learning about new information technologies outside of school and with inadequate teacher training in this area, the point was made that we should be concentrating on

What role should new information technologies have in schools?

areas of education that produce definite positive results. On the other hand, some participants disputed this view by pointing to the current successful innovations occurring in the delivery of education and the potential of new technologies to further improve education in ways that have not yet been explored.

KEY QUESTIONS IDENTIFIED DURING SESSION 3: TECHNOLOGY

What role should new information technologies have in schools?

What is "technology"?

How do the new information technologies change the way students learn and the way teachers teach?

What is the impact of technology?

What types of learning are best supported by the application of new technologies?

How can we equip our teachers with the necessary knowledge and skills?

How can equitable access be ensured?

How can we foster relationships with the private sector and with local communities as means of improving access to new information technologies?

We need to collect baseline data and best practices.

There is a need for cost-benefit analysis.

How do the new information technologies change the way students learn and the way teachers teach?

"Learning Democracy in a Pluralist Society: Building a Research Base for Citizenship Education in Canada"
Prepared by A.M. Sears, G.M. Clarke, and A.S. Hughes

This paper addresses the current state of knowledge concerning citizenship education in schools across Canada. The authors suggest a program of research that will strengthen the knowledge base and contribute to the improvement of education practices through addressing the following: the development of specific outcomes for citizenship education; assessment and monitoring of student achievement; and pedagogy features of citizenship education and gaps in knowledge.

The authors organized the paper in three main sections. In the first section of the paper, *Toward Conceptual Clarity*, the authors argue that citizenship is often contested in theory and practice, yet agreement on its "general features" exists. Moreover, the authors report that in all the provinces and territories across Canada, citizenship education revolves around core elements such as "appropriate knowledge, skills, or participation, and dispositions of democratic living." The authors then address the need to identify what specific skills sets students ought to learn in citizenship education.

The second major area of the paper focuses on the assessment and monitoring of student achievement. Here, the authors point to the lack of large-scale evaluations of citizenship education and also the lack of large-scale studies in the assessment of skills or dispositions of citizenship education in Canada. The authors note that although small-scale studies have been done, their lack of coordination hinders their "basis for a reliable body of knowledge." These findings lead to the proposed research questions on student achievement in citizenship education and ways of monitoring its progress.

The final section of the paper addresses the pedagogical dimensions of citizenship education. Comments on teaching and learning strategies for citizenship education and gaps in knowledge are provided. The authors suggest the provision of more guidance to teachers with regard to the teaching approaches they use to address citizenship education. The authors also comment that, at a high policy level, schools and ministries/departments of education are committed to active learning strategies, while, traditional strategies still prevail in classrooms.

Finally, the paper addresses the competence level of graduates of faculties of education in their abilities to "successfully implement citizenship curricula."

Alan Sears, **Gerald Clarke**, and **Andrew Hughes** are all professors in the Faculty of Education at the University of New Brunswick. They are the core members of the Citizenship Education Research and Development Group at UNB and have published widely in the field of citizenship education.
asears@unb.ca

PRESENTATION – Alan Sears

At the symposium, Alan Sears provided context on the state of research in citizenship education in Canada and abroad. He mentioned a number of studies and research projects, including the Canadian portion of phase one of the IEA[2] study on civic education; the Citizenship Education Research Network (CERN), a body committed to collaboration in the area of citizenship education; studies prepared by the University of Montreal testing concepts of citizenship and the way they relate to how young people understand themselves; initiatives under the Pan-Canadian Education Indicators Program (PCEIP); and significant national undertakings in Australia, Britain, and the United States, including the inclusion of civic education in the National Assessment of Education Progress initiative (NAEP).

Dr. Sears reported that concerns regarding citizenship education in Canada are similar to those in other countries, and furthermore correspond to the four main areas of research proposed in the paper:

(1) What precisely is meant by good citizenship?
(2) How can that be measured and progress monitored?
(3) What pedagogical tools best facilitate the development of citizenship?
(4) What are the best ways to prepare teachers to be effective citizenship educators?

Dr. Sears identified the need to take advantage of existing studies and to build upon them instead of starting from scratch. He also encouraged greater coordination among studies. In summary, he argued the need to raise the profile of citizenship education and stated that organizations like CMEC and Statistics Canada are facilitating this process.

RESPONSE – Keith Wagner

Keith Wagner started his commentary by naming citizenship education as a highly relevant area of research. He argued the need to draw attention to the citizenship role of schools in order to balance their economic-instrumentalist role, which has of late received a lot of attention. He pointed to the commonality between employability skills and dispositions, such as respect for diversity and teamwork, and those skills that are encompassed in a good citizen, and suggested researching the relationship between employability skills and dispositions and the skills and dispositions addressed by citizenship education.

Mr. Wagner also addressed the issue of active learning approaches and the impediments that may cause teachers to overlook them. He was not so much concerned with an existing gap of knowledge on behalf of the teachers. Rather, he suggested, teachers may be using pedagogic methods that are accepted in the community in which they work. Furthermore, he added that some communities may not embrace less traditional learning strategies. He recommended that before outcomes and levels of student achievement in citizenship education are addressed, research should be done on what is currently being taught in the classrooms and why.

To conclude, Mr. Wagner complimented the paper prepared by Sears et al and stated that they have identified salient questions of interest in this policy area. Moreover, he added the following sub-dimensions under the five research questions proposed by the authors.

[2] The International Association for the Evaluation of Educational Achievement

Question 1:
- What are the commonalities between citizenship skills and employability skills?
- How can educators bring some other segments of society on-side with the consensus that likely already exists among educators?
- What are the best strategies for working across jurisdictional boundaries to develop curriculum based on the common outcomes for citizenship education?

Questions 2 & 3:
- Research in these areas (levels of student achievement and progress monitoring) may need to follow the research on common outcomes.
- A first step may need to be further researched on how to measure "soft" outcomes in large-scale assessments.

Question 4: What is the appropriate pedagogy?
- Do we really not know the answer to this question?
- Are teachers currently using the approaches/strategies that they know how to use and believe in? If not, why not, and what needs to be done to give them more confidence to use strategies they believe in to be effective?

Question 5: Do education graduates have the expertise?
- If we really don't know what expertise is required, we would have to determine that first.
- This would be difficult to assess at the point of graduation; it may be possible to determine only by assessing performance over time.

> *What do we understand citizenship to be?*

Keith Wagner is the Director, Curriculum Standards Branch, Alberta Education. He has had a 36-year career in all levels of teaching and administration in basic education in Alberta and has been a classroom teacher, a school-based principal, a superintendent of schools, and a consultant, and a manager in Alberta Education. He has participated in identifying research priorities for PCERA.

As a first step in addressing the subject of citizenship and social cohesion, many of the participants felt it necessary to look at what is currently being done in this field and in related fields such as heritage education, social studies, and volunteer work in the community. *What are students currently learning about citizenship?* Participants pointed to the need for a micro-approach to research through the collection of qualitative data and case studies as well as the need to take advantage of the existing knowledge in this field by extracting common findings, and synthesizing and coordinating information.

The fundamental questions raised by all groups in the written comments centred around *What do we understand citizenship to be?* and *How do students, parents, and community come to this understanding?* There is a need to have a common understanding of citizenship and social cohesion so that in turn these ideas can be more effectively integrated into school life and teacher education. Differences in the way citizenship is addressed by jurisdictions across Canada were raised during the discussion; determining a pan-Canadian meaning of citizenship was also debated. More participants, however, suggested the need for exploring the differences instead of struggling with a common definition. The danger of having a common definition was voiced as it would undoubtedly alienate those who do not identify with or share the same view. Questions were raised on how social cohesion fits with the understanding and research on citizenship.

What specific knowledge, skills of participation, and dispositions of democratic living ought students to learn in their public school experience? The first question raised by Sears et al was also popular among the groups although modifications were provided. Many groups pointed to less traditional means of approaching citizenship and social cohesion than simply through the curriculum. Addressing citizenship and social cohesion through the structure, processes, and policies in place at schools as well as ways in which schools address issues such as community and global issues, equity, and democratic procedures was deemed important by many of the participants. Dr. Sears proposed the development of partnerships with communities and various groups advocating citizenship. Having volunteer activities in the community as a mandatory part of citizenship education was also suggested during the discussion. As expressed by many of the participants, the scope of citizenship and social cohesion must be broadened so it is inherent in the way schools manage their staff, and students, and curriculum. *How can a school enact democratic attitudes in its own behaviours within and outside of the classroom?* During the discussion, participants argued for linking the values inherent in citizenship — as well as diversity and equity — to the primary mandate of schools and to the realities of school life. *Citizenship is a state of mind, [it is] responsiveness to the community, [it] is a way of living — not a way of teaching.* Many groups suggested looking at best practices of schools, including Aboriginal and First Nations education, and other organizations. *Are there schools and other organizations where structures support the development of democratic citizens? What can we learn from citizenship initiatives and practices in communities, jurisdictions, and in other countries?*

More of an inclusive view of citizenship education in incorporating other areas such as diversity and equity was suggested during the discussions. Participants also cautioned against schools and ministries/departments of education expecting teachers to address a wide range of competencies while at the same time promoting "back to basics." A reference was made to Charles Ungerleider's keynote address where he spoke of the danger of setting policies that send teachers and schools in opposite directions.

What can be expected of schools in teaching citizenship?

Although two of the questions raised by Sears et al focused on measuring student achievement in citizenship education, only a few comments were made on this topic by the participants. Furthermore, the comments were contrary in nature as some participants pointed to the need for indicators, both qualitative and quantitative, while others did not consider evaluating citizenship and social cohesion via a set of measurable items to be suitable. Even if indicators for citizenship and social cohesion were to be implemented, as one participant added, it would be difficult to determine what in fact they would be measuring. Moreover, it would be difficult to attribute the results to schools, as individuals experience and learn about citizenship and social cohesion though a variety of outlets such as family, social relationships, and dealings with the community. "Citizenship is a social construct." And so, participants asked, *What can be expected of schools in teaching citizenship?*

KEY QUESTIONS IDENTIFIED DURING SESSION 4: CITIZENSHIP AND SOCIAL COHESION

What are students currently learning about citizenship?

What do we understand citizenship to be? How do students, parents, and community come to this understanding?

How does social cohesion fit with the understanding and research on citizenship?

What specific knowledge, skills of participation, and dispositions of democratic living ought students to learn in their public school experience?

How can a school enact democratic attitudes in its own behaviours within and outside of the classroom?

Are there schools and other organizations where structures support the development of democratic citizens?

What can be expected of schools in teaching citizenship?

"A Pan-Canadian Research Program For More Inclusive Schools in Canada: The Diversity and Equity Research Background"
Prepared by David Corson

David Corson's paper focuses on four research questions that were identified as priorities by respondents from provincial/territorial ministries and departments. Each question is preceded by a literature review that highlights key issues.

Dr. Corson reports that his first proposed research question addressing effective approaches to Aboriginal-controlled schooling was considered the most pressing issue by ministry/departmental respondents from Manitoba, Saskatchewan, Northwest Territories, Quebec, Ontario, and Newfoundland and Labrador. Furthermore, he states that Aboriginal control over education was also a recommendation of the *Royal Commission on Aboriginal Peoples*. Aboriginal peoples' desire for incorporating both ancestry and cultural traditions with the wherewithal needed to succeed in today's global economy in their approach to education is also emphasized. Additional key issues that are addressed under this section include educational policies for Aboriginal language, cultural revival, and Aboriginal teacher education.

The second research question focuses on the integration difficulties experienced by culturally different children in school systems. The detrimental effects of standardized testing and other traditional testing as well as other causes of bias within schools are highlighted.

The third research question addresses the need to reduce disparities among different social, cultural, and regional groups in accessing literacy. Dr. Corson points to the lack of contextual studies on literacy reflecting issues of diversity. He references the *International Adult Literacy Survey* (1997) to illustrate that students from poor and disadvantaged backgrounds score "at markedly lower [literacy] levels in all provinces."

The fourth and final research question addresses the lack of research on policy implementation. Dr. Corson emphasizes the need for studies in this area in order to aid the design, review, adjustment, and coordination of policies. Additionally, he points to the relevance of policy evaluations and studies in determining whether the needs of the people are being met by the programs.

David Corson (Ph.D., London) is a professor in the Department of Theory and Policy Studies, and in the Modern Language Centre at the Ontario Institute for Studies in Education. He has taught in universities in Canada, England, Australia, and New Zealand and has been a teacher at the elementary and secondary levels, a curriculum officer, and a school and system administrator at compulsory and postcompulsory levels. He is founding editor of *Language and Education: An International Journal* and general editor of the *Encyclopedia of Language and Education*. He is author or editor of around twenty books, including *Education for Work: Background to Policy and Curriculum* (1990), *Discourse and Power in Educational Organizations* (1995), *Using English Words* (1995), *La justice sociale et la politique des langues dans le domaine de l'éducation* (1996), *Changing Education for Diversity* (1998), *Language Policy in Schools* (1998), and *Language Diversity and Education* (2000).

dcorson@oise.utoronto.ca

PRESENTATION – David Corson

During his presentation, Dr. Corson highlighted many of the major points addressed in his paper. He pointed to the desire for Aboriginal schooling to encompass "the best of both worlds." He referred to the importance of Aboriginal-controlled schools, but also noted the reality that some Aboriginal students will continue to receive education from provincial or territorial schools. As a result, Dr. Corson recommended additional research on dominant culture schools and how these schools respond to the needs of Aboriginal students. He also addressed the multitude of diversity existing in Canada and the need to encompass people of all backgrounds and standing in our view of diversity — immigrants, marginalized individuals, and those individuals marginalized as a result of their area of residence. He stressed the importance of addressing the problems these populations face such as poverty and low levels of literacy.

As in his paper, Dr. Corson pointed to the need for coordination of policy research in education. He highlighted the absence of policy implementation research in Canada and how research in this area could improve processes and could determine whether or not intended results are being achieved. Moreover, he played down the value of survey research in favour of research seeking to examine the "micro-context" of implementation. He suggested the use of ethnographical approaches in evaluating policies and programs aimed at reaching people in remote areas or those living in "marginal culture and social spaces."

RESPONSE – Derek Green

Derek Green acknowledged the value and importance of the issues identified by Dr. Corson. He noted the importance of these issues — the survival of Aboriginal languages, Aboriginal-controlled schools, and training of Aboriginal teachers — especially for the Northwest Territories and for Nunavut. He also commented on how the control of Aboriginal schools gives Aboriginal people the opportunity to achieve the best of both worlds in their educational pursuits.

Mr. Green also addressed an area not explicitly dealt with by David Corson's paper – that of private and home-schooling and types of alternate schooling. Mr. Green commented upon how these alternative methods of schooling are responses to equity needs (and various other needs) perceived as not being met by standard school systems. He suggested studies in this area and was also in agreement with David Corson's recommendation for research on policy implementation. To conclude, Mr. Green identified the paper as a good foundation for setting a direction for research in the area of more inclusive schooling in Canada.

Derek Green is Coordinator of Evaluation in the Policy and Planning Division of the Northwest Territories Department of Education, Culture and Employment. Over the past 20 years he has been involved in a variety of departmental initiatives in student assessment, curriculum and program evaluation, and currently in performance measurement.

"Marginalization, Decolonization, and Voice: Prospects for Aboriginal Education in Canada"

Prepared by Terry Wotherspoon and Bernard Schissel

This paper focuses on the education gap between Aboriginal and non-Aboriginal people in Canada. In the first section, theoretical explanations and contributing factors to the educational gap — individual, cultural, institutional, and social constructural factors — are addressed. The authors note that increasingly more attention has been paid to these factors as contributing to the education gap instead of "deficits in Aboriginal people and indigenous cultures." Furthermore, the authors point to the importance of looking beyond identifying factors in favour of studying how they are linked and interconnected. Barriers to this type of research, however, exist because of the lack of systematic pan-Canadian data, the use of legal categories, and concentration of data on certain sections of the Aboriginal population (such as registered and on-reserve Indians).

The subsequent area of the paper examines key determinants of educational success and failure among Aboriginal people. These determinants are examined under the following themes: culture, personnel, resources, governance, and community linkages. Three case studies are subsequently presented to illustrate successful examples of schooling and alternate schooling. To conclude, the authors argue the imperative of education systems that keep child advocacy as their priority through encouraging — rather than silencing — students' voices, as well as by encompassing the arenas of personal development, democracy, justice, health, and safety.

Terry Wotherspoon is professor and head of Sociology at the University of Saskatchewan. He has conducted research and published widely in the areas of Sociology of Education, Aboriginal people in Canada, and social inequality. His recent books include *The Sociology of Education in Canada: Critical Perspectives* (Oxford University Press), *Multicultural Education in a Changing Global Economy: Canada and the Netherlands* (Waxmann; co-edited with Paul Jungbluth), and *First Nations: Race, Class and Gender Relations* (Nelson; co-authored with Vic Satzewich).
wotherspoon@sask.usask.ca

Bernard Schissel, Ph.D., is a professor in the Department of Sociology at the University of Saskatchewan. His areas of interest include youth crime and justice, the sociology of children, the sociology of law and social control, and crime, justice, and rural sustainability. His articles have appeared in *Youth and Society, Social Science Research, Social Justice, Journal of Criminal Justice: An International Journal,* and the *Canadian Journal of Sociology*. His recent books include *Blaming Children: Youth Crime, Moral Panics and the Politics of Hate* (1997 Fernwood Books), *Social Control in Canada: Issues in the Social Construction of Deviance* (with Linda Mahood, eds. 1996 Oxford University Press), and *The Social Dimensions of Canadian Youth Justice* (1993 Oxford University Press).
schissel@sask.usask.ca

PRESENTATION – Terry Wotherspoon and Bernard Schissel

Both Terry Wotherspoon and Bernard Schissel shared the podium at the symposium. Dr. Wotherspoon began the presentation by pointing to the vast amount of information on the education gap and the marginalization faced by Aboriginal people and how we are finally coming to understand the significance of this issue. He further addressed the significance of the education gap by noting that in Saskatchewan, in the next few years, one-third of the school population will be of Aboriginal ancestry. He then spoke to the educational realities faced by Aboriginal populations, such as low graduation rates, low postsecondary enrolment rates, and barriers and limitations to postsecondary funding.

Dr. Wotherspoon then commented on guidelines to research in this subject area. First, he emphasized the point made by David Corson on the desire of Aboriginal people to incorporate cultural traditions along with the wherewithal necessary to succeed in today's global economy. He also highlighted the diversity within Aboriginal populations and the need for tailored responses as opposed to blanket solutions. Finally, Dr. Wotherspoon addressed the need for schools to recognize students as whole beings by encompassing their "real-life concerns."

Bernard Schissel continued the presentation by providing the context in which the authors framed their research proposal. He started by stating that their research on marginalized populations and Aboriginal populations has implications for all schools across Canada. The second major issue revolved around a holistic understanding of education. He identified successful schools as those offering more than simply the transfer of knowledge, by providing students with safe and secure environments, life skill development, quality interaction with adults, and the opportunity for cultural, spiritual, and language development. Moreover, Dr. Schissel reported that the successful schools they studied also encompassed justice, health, and welfare. He noted the importance of this at a time when the justice system fails to adequately address troubled students. He also emphasized the importance of enabling students to have input into their education — their discipline and curriculum, the hiring of teachers, and school administration. Dr. Schissel felt that the practice of democracy "is a profound research benchmark as all schools are in effect sustainable communities and should be assessed as such."

To finish, Dr. Schissel spoke of valuable elements in carrying out research. First, he pointed to the importance of involving the people being studied so that they can guide and enhance the research. Second, he professed the virtue of case study and the need for more of this form of research especially on this subject. In addition, he emphasized the need for user-friendly studies — comprehensible and accessible research — to promote its use and application. Finally, he reiterated the pertinence of their research to all schools and not only those dealing with marginalized populations and Aboriginal populations.

RESPONSE – Paulette Tremblay

Paulette Tremblay started her response with some general comments. First, she stated that for Aboriginal peoples, finding a balance in both worlds is a way of living. She emphasized the point that Aboriginal and non-Aboriginal populations needed to work together to address Aboriginal education; although Aboriginal peoples want to accomplish this independently, the reality of working in both worlds means working in provincial and territorial educational systems. Furthermore, Dr. Tremblay pointed to the protocol needed in working together as it is part of First Nation culture. In addition, respecting and acknowledging the diversity among Aboriginal and First Nation communities was highlighted.

Dr. Tremblay applauded and complimented research in the field of Aboriginal education including the two papers being presented at the symposium. She found both of the papers to have appropriately addressed pertinent issues relating to Aboriginal populations. Her following comments concentrated on the research questions proposed by Terry Wotherspoon and Bernard Schissel. She stated her support for their questions but offered some suggestions.

Dr. Tremblay considered the first question — that of combining alternative measures of educational experience with traditional indicators — an appropriate way of addressing educational success especially for teachers having little or no experience with Aboriginal peoples.

She suggested combining questions 2 through 4. She suggested examining ways government, ministries/departments of education, Aboriginal-controlled schools, and school jurisdictions can work in partnerships to address Aboriginal education. She also felt it necessary for this to occur at the outset so that all partners — especially Aboriginal organizations — feel ownership over the policies and programs. She also suggested examining First Nation education institutes — for they are producing significant and high quality research — and alternative Aboriginal education, given the high dropout rate among Aboriginal populations.

She then addressed the subsequent questions on fostering holistic education. Although she considered this to be an important area of study, she believed it to be misunderstood. Moreover, she recommended examining holistic education from both an Aboriginal and a non-Aboriginal perspective. She also suggested combining questions 5 and 6.

In conclusion, Dr. Tremblay provided a list of research topics of interest to First Nations peoples. Sources of funding, educational jurisdiction, curriculum development, special education, postsecondary funding, First Nation languages, and international research relationships were the topics cited.

Paulette Tremblay is a Mohawk of the Grand River First Nations at Six Nations in southern Ontario. She obtained two degrees from the University of Ottawa: a Ph.D. in Education, concentrating in Psychopedagogy from the University of Ottawa and a Master of Arts degree concentrating in Measurement and Evaluation. She also has a Bachelor of Education degree and a Bachelor of Arts degree in Sociology. Dr. Tremblay has worked as a high school teacher in Yukon, as a curriculum design specialist and adult educator for the federal government, and as an education consultant. She is currently employed as the Director of Education at the Assembly of First Nations.

KEY QUESTIONS RAISED DURING SESSION 4:
DIVERSITY AND EQUITY

Participants were very satisfied with the questions proposed in both of the papers addressing diversity and equity. In particular, the groups favoured Terry Wotherspoon and Bernard Schissel's question 5. Slight modifications, however, were given, such as *What forms of/how can schooling combine the mandates of justice, social welfare, health and education systems to foster holistic education that is appropriate for Aboriginal and non-Aboriginal students?*

Question 1 proposed by David Corson was also popular among the participants. *What pan-Canadian research program would identify and describe different and effective approaches to Aboriginal-controlled schooling?* The groups, however, broadened the question to encompass examples and models of institutions and schools successfully responding to the diversity of the population they serve. Moreover, the groups proposed questions on how best to gather information and best practices from schools and organizations and how this information can be best shared with all schools (similar to question 2 proposed by Terry Wotherspoon and Bernard Schissel). Participants also highlighted the need to research and compile information on the difficulties schools and institutions face in addressing diversity. Participants and authors noted the importance of approaching diversity not solely through a cultural lens but through considering those from marginalized areas and disadvantaged backgrounds. As noted by David Corson, participants emphasized the need to address the problems faced by these individuals, such as poverty and low levels of literacy.

Some participants also referred to a variation of question 1 proposed by Terry Wotherspoon and Bernard Schissel. Some participants, as well as respondent Paulette Tremblay, felt this broader approach to indicators was appropriate and important. *How can alternative measures of educational experience be combined with traditional indicators to create a holistic measurement of educational success?* The use of indicators, however, was seen as a challenge as it must guard against assimilation and the loss of cultural identity while also avoiding stereotypes.

A number of issues regarding researching processes were also discussed. Participants referred to the point addressed by David Corson in his paper and in research question 4 on the need for more emphasis on policy implementation research. As Dr. Corson stated, a current lack of study in this area exists; moreover, determining whether the policies in place are in fact helping those they intend to help and determining the necessary adjustments is crucial. Participants as well as the authors addressed the need for increased use of qualitative research methods — case studies, micro-context studies, ethnographic approaches — and the importance of involving the populations being studied in the research process. Some participants felt that research on the subject of diversity and equity needs should not be addressed in isolation, but should be coordinated and linked with other subjects such as citizenship, democracy, and special needs programming. Likewise, some participants called for coordination in the way in which schools address these issues.

How can schooling combine the mandates of justice, social welfare, health, and education systems to foster holistic education?

KEY QUESTIONS RAISED DURING SESSION 4: DIVERSITY AND EQUITY

How can schooling combine the mandates of justice, social welfare, health, and education systems to foster holistic education?

What pan-Canadian research program would identify and describe different and effective approaches to Aboriginal-controlled schooling?

How can information and best practices from schools and organizations be best shared with all schools?

We need to research and compile information on the difficulties schools and institutions face in addressing diversity.

We need to approach diversity in a broader manner.

There is a need for research on policy implementation.

Increased use of qualitative research methods was called for.

What pan-Canadian research program would identify and describe different and effective approaches to Aboriginal-controlled schooling?

SESSION 5: SPECIAL NEEDS PROGRAMMING

"Inching Toward Inclusion: The Excellence/Equity Dilemma in our Schools"
Prepared by Judy Lupart

In her paper, Judy Lupart gives a brief history of special needs programming. She demonstrates that the meaning of special needs programming has changed dramatically. In the early part of the century, special needs programming constituted separate, isolated services in residential schools and institutions — in effect taking the child away not only from the regular school system but from the community as well. In recent decades, schools have taken more responsibility for students with special needs, exemplified by the provision of special education (which has been widely characterized by categorization, specialized testing and assessment, special classroom placement, specialized curriculum, and specially trained teachers). As the paper points out, special education soon became an established second system within the regular education system. Since the 1970s, two major factors have disrupted the "symbiosis of the regular and special education systems" — first, recognition of the dramatic increase in the number of labels and categories associated with special needs and the number of students deemed to required special needs programming (students identified with special needs are "exceeding the traditional boundaries of special education" to include students from economically disadvantaged backgrounds and from different cultural or language backgrounds) and second, society's changing view of individuals with special needs.

Although inclusion is understood and valued as a concept, Dr. Lupart addresses factors impeding its realization in the school system. Primarily, school structures and support systems are, in her opinion, hopelessly ill equipped to provide appropriate educational services to all students. She refers to the undue separation of regular and special education and the need to end the isolation between regular and special education educators in an effort to merge disparate expertise and knowledge. In addition, she highlights the perceived conflict between schools' need for fostering excellence and the need for inclusion. Furthermore, she states that inclusion in fact requires both the commitment for excellence and equity in schools.

Secondly, Dr. Lupart reflects on the initiatives that have been characterized with quick fixes and low investment. Similarly, she points to the faulty ideology that inclusion can be readily implemented in the classroom. It is here she poses the question, "How well prepared are general classroom teachers to assume the responsibility [for a full range of learners in inclusive classrooms]?" Another factor identified in contributing to the lack of school change and reform is conflicting perspectives and conceptualizations. It is here that Lupart points to the disparity between programs across the country and the lack of coordination in addressing students with special needs. She argues that the lack of a pan-Canadian collection of data impedes the work of educational researchers and decision-makers. "How can educators in Canada make informed decisions about policy and school change if they can't even access the data and information?"

Judy Lupart is a professor in the Department of Educational Psychology (Special Education) at The University of Calgary. She has served as the founding director of the Centre for Gifted Education and the founding editor of Exceptionality Education Canada. Her research and teaching interests include inclusive education, learning disabilities, giftedness, and at-risk learners. Two recent SSHRC-funded research projects are focused on girls, women, giftedness, and achievement. *jllupart@ucalgary.ca*

Other special needs issues identified by Dr. Lupart's paper include advocacy groups' concentration on singular issues as opposed to coordinated efforts to promote inclusion; inconsistent use of terms such as integration, mainstreaming, normalization, and inclusion; research efforts lacking a coordinated perspective; and a need for horizontal organizational and a unified system of education to realize true inclusion.

PRESENTATION – Judy Lupart

In her presentation, Dr. Lupart highlighted the paradoxes of special needs programming within our education system and the need to addresses these paradoxes before progress in this area is made. As in her report, she described the distinct periods of special needs programming throughout the latter half of the century, as characterized by exclusion, categorization, and integration. Although societal pressures and policies from ministries and departments of education promote inclusion, many current classroom practices do not reflect this ideology. She pointed to the growth of categories of exceptionality and the numbers of students being appointed to them. Although there is movement towards inclusion, a second system of special education has been created. This is what she named as the first paradox. The second paradox revolves around the perceived dichotomy between having equity and having excellence in schools. Dr. Lupart reaffirmed that schools can and should uphold both of these principles.

Dr. Lupart proposed a solution to these paradoxes by transforming the competing systems of education into a truly unified one. A system removing all artificial barriers was recommended. As she pointed out, the current practice of labelling students has increased over the past years, and this labelling has even gone beyond the traditional boundaries of special needs to include students from economically disadvantaged backgrounds and students from diverse cultural and language backgrounds.

Dr. Lupart then sought to address the requisite support for teachers in achieving inclusion. She emphasized that the underlying responsibility rests with teachers as they are ultimately responsible for implementing inclusion in the classrooms. The need for teaming possibilities so educators can pool and merge their knowledge and expertise was recommended. To conclude, she reflected on the lack of follow-up on outcome measurements in schools. The need to use the information to effect change was also emphasized.

RESPONSE – BJ Willis

In her response, BJ Willis addressed the research questions put forth by Judy Lupart. With regard to educators' understanding of inclusive education, BJ Willis felt that they do in fact know what inclusive education is and what it should look like. However, the importance of relevant pre-service training to prepare the teachers for the realities of inclusive education was highlighted. She commented that school districts also need to empower their teachers. She added that teachers need to know that they do not require high-level credentials such as a master's degree in special education to implement inclusive education. Moreover, in creating an inclusive classroom, she expressed the need for specific supports, which need to be flexible and need to cross union boundaries.

In promoting a coordinated understanding and practice of inclusive education, BJ Willis primarily sought to address the challenges faced by policy and decision makers. She argued the imperative of aligning government policies across the different ministries and departments — be they health, social services, justice, or education — to fully support and provide for the students with special needs. As well, she stated that advocacy groups must take a similar stance by coming together in support of inclusion instead of solely promoting their individual campaigns.

BJ Willis also pointed to the challenges faced by researchers. Researchers need to examine existing inclusion policies in all jurisdictions. As well, research needs to identify school districts with innovative practices in order to provide information that will help schools in identifying appropriate support levels. The challenge here is that all schools are unique and therefore require different levels of support. In addition, she pointed out that an aim in promoting a coordinated understanding of inclusive education is to address public perceptions. She suggested research that explicitly shows the benefits of innovative programming including the use of pilot projects. Furthermore, she articulated the need for research to back up what is already known with regard to learning strategies and inclusive education to guard against a negative response from the public. The importance of collecting baseline data on the target student population and making the information available to schools and decision makers was also highlighted. Lastly, BJ Willis stated the need for work to be done to define the issues. In addition, she affirmed the need for establishing appropriate outcome measurements for students with exceptionalities.

BJ Willis holds a B.A. in anthropology from the University of New Brunswick and a B.Ed from the University of Prince Edward Island. She received her M.Ed. in Counselling from Acadia University in 1991. Ms. Willis has spent her teaching career working on the eastern end of Prince Edward Island. She has taught at the elementary level and for the past 12 years has been an administrator, a vice-principal at an elementary school, principal of a 1-9 school, and last year held the position of District Principal/Instructional support for the Eastern School District. Her assignment for this year is Principal of a 1-6 dual track school in Montague, P.E.I. Her interest in creating a safe and secure environment for students continued into the community. In 1992, Ms. Willis was seconded to the P.E.I. committee on Government Reform to be a staff resource on the Education Task Force. She was on the executive of the Eastern School District Principals' Association and is past-president of the P.E.I. Association of School Administrators. She has been involved with the Canadian Association of Principals for the past three years.

"School Integration of Children with a Disability in Provinces and Territories in Canada"

Prepared by Robert Doré, Serge Wagner, Jean-Pierre Brunet, and Nathalie Bélanger

The paper by Doré et al reviews the status of school integration of children with disabilities throughout the provinces and territories of Canada. The paper includes the following sections: main concepts and their interpretations; school integration policies and court rulings; statistical data and basic indicators; measurement and results; success factors and conditions for integration; and budgetary and financial dimensions of integration. The authors cite relevant studies under the respective headings.

Under the first heading, the authors state that one of the major problems facing the domain of special education is the lack of consistency in the use of concepts and terms. The authors identify two prominent approaches addressing children with disabilities: mainstreaming, which incorporates a full range of services (also referred to as Least Restrictive Environment) and inclusion, which takes place in the regular classroom with the necessary adjustments and supports.

The second section of the paper points to the rapidly changing acts, policies, and regulations concerning the governance of school integration/inclusion. The authors also refer to recent court rulings that have interpreted the *Charter of Rights.* Five studies are cited, but the authors note that the findings are limited in their comparisons and completeness and also are contradictory at times. In addition, the authors list three key aspects for legislation and policy: (1) the right to public education, (2) the right to a regular class with necessary adjustments and to the Least Restrictive Environment, and (3) the right to an individual education plan (IEP).

Subsequently, the authors point to the inadequate availability, reliability, and comparability of statistical data in this field. They emphasize the need for baseline data reflecting the number and characteristics of students requiring special attention and how their needs are being addressed in the various jurisdictions and schools across Canada. Since the implementation of integration/inclusion policies, the authors remark that tracking of students with disabilities has decreased. "Enumeration difficulties increase when inclusion is viewed as a process … and tracking of integrated children is lost."

Under the heading "measurements and results," the authors ask and address the following questions. "What should be measured to assess services or programs for children with disabilities?" "What are the achievements of children with disabilities in regular classrooms compared to those in other school services?" The authors reference a number of reports but comment on the lack of systematic studies.

In the section following, the authors summarize findings from studies in Canada and the United States that identify ten components of conditions favouring the success of inclusion: values, attitudes, legal and social factors, school organization, curriculum, teaching and learning, support services, interaction with the environment, supervision and follow-up, and preparing stakeholders.

Under the section dealing with budgetary and financial dimensions of integration, the authors report on several aspects relating to requisite support for inclusion. The authors point to the reality of underfunding and the need for budgets that previously were committed to special education to be incorporated in regular education programs. The authors also point to other types of support that play an important role in successful inclusion, such as teacher support and support from other professions, adequate transportation and physical access, and low student-to-teacher ratios.

To conclude their review of the status of school integration of children with disabilities, the authors suggest the following: reviewing the indicators used by the provinces and territories; carrying out comparative studies on integration policies throughout Canada; studying the benefits of inclusion at the secondary level; and assessing the impacts of various factors on the quality of social integration of children with disabilities in a regular class, in addition to the actions performed by teachers and professionals
to assist the integration.

Robert Doré is a professor-researcher in the Département des sciences de l'éducation at the Université du Québec à Montréal. Co-author of *Réussir l'intégration scolaire, la déficience intellectuelle*, his research topics include the identification of factors that influence successful scholastic integration, the preparation and development of regular class and special education teachers, measures of effectiveness, and the cost of services for students with specific needs.
dore.robert@uqam.ca

Serge Wagner is a full professor in Education at the Université du Québec à Montréal and a member of the groupe de recherche intégration scolaire et déficience intellectuelle (GRIDI). He specializes in adult education and basic literacy. He is a member of the Board of governors of the UNESCO Institute For Education.

Jean-Pierre Brunet is a professor in the realm of school and social adaptation, in the Education Department of the Université du Québec à Montréal. His primary interests lie in the initial and ongoing training of teachers in this field. His research focuses on the mainstreaming and inclusion of special-needs students, class organization and management, and curriculum adaptation. His latest papers address the administrative changes in Quebec schools. Professor Brunet was a guest speaker at the Latin America Conference.

Nathalie Bélanger is an associate professor at the Ontario Institute for Studies in Education at the University of Toronto, in the departments of sociology and education equity, as well as in the Department of Curriculum, Teaching and Learning. She is also involved with the Centre de recherches en éducation franco-ontarienne (CREFO). She completed her master's studies at Université Laval, her doctorate at Paris V-La Sorbonne and a postdoctorate term in England. Her educational research interests lie in the areas of elementary education, exclusion and inclusion mechanisms and processes in the classroom, and the history of sociology and specialized education.

PRESENTATION – Robert Doré

Robert Doré commenced his presentation by pointing to the confusion surrounding current terms in use in this field. He referred to the following three terms: integration, mainstreaming, and inclusion. (He mentioned that in French the term inclusion does not exist and so is replaced by integration.) He, therefore, addressed the differences between mainstreaming and inclusion.

Dr. Doré referred to a belief that came out of the mainstreaming movement of the African-American people of the United States, as a means to reach the goal of "normalization" or "social role valorization." It comprises a continuum of services, services provided in regular classes as well as those offered in special programs and schools. According to this approach, the issue is whether the child in question can adapt to the regular classroom or can learn a significant proportion of the content that is being taught in such a classroom. This approach corresponds to the Least Restrictive Environment.

Inclusion is based on a different premise: all student have the right to learn in a regular classroom. He also listed the following descriptors on inclusion: full or partial participation in social interactions and in academic activities, and a context that favours social development of all students. The issue concerning this approach is whether the regular classroom can be adapted to take into account the characteristics of students with disabilities.

Concerning the identification of these students, Dr. Doré commented on the lack of Canada-wide descriptive data. He reflected on the lack of mechanisms in the different provinces and territories in Canada for collecting such data. From the literature review carried out for this paper, he reported that the majority of jurisdictions across Canada have implemented mainstreaming, while the remaining ones follow the inclusion approach or use a combination of both. Moreover, he noted that the policies and programs within the jurisdictions can also differ.

Dr. Doré then turned to the topic of the proposed research questions. He first highlighted the question regarding result measurement and inclusion, especially at the secondary level, then reflected upon the more common practice of reporting and observing as opposed to measuring outcomes and results.

Subsequently, he addressed the question on success factors for inclusion. "What are the factors of successful inclusion?" He pointed to the training and support requisite for teachers for successful inclusion. He felt, however, that many teachers were given the responsibility of inclusive classrooms without the necessary supports. He also asked what actions on behalf of teachers would favour successful inclusion.

KEY QUESTIONS RAISED DURING SESSION 5:
SPECIAL NEEDS PROGRAMMING

There was overwhelming concurrence on the need for the collection of baseline data on a pan-Canadian level. Data on different types of special needs, on how special needs students are being provided for, and on various practices, programs, and policies were deemed essential (similar to questions 2 and 4 raised by Doré et al and Judy Lupart, respectively). *What are the range of practices in the way school systems are responding to meet the needs of students with special needs?* Both quantitative data and qualitative data — including case studies and ethnographies — were seen as important. Participants pointed to the need for information derived from various stakeholders, such as teachers and related professionals, parents, and community. Participants emphasized the need for a coordinated and accessible database to facilitate the timely and effective dissemination of information. Participants noted that the availability of the data is essential for the establishment of longitudinal studies that show the effects of special needs programming over time.

There was additional discussion around the topic of the various types of support needed for special needs programming. *What are the requisite supports that schools and, in particular, teachers need to effectively support students with special needs?* Relevant pre-service training to prepare teachers for inclusion in their classrooms and continual teacher training, particularly for well-seasoned teachers to keep them current on new strategies and practices, were mentioned. A number of comments on funding were made, especially with regard to the need for adequate levels to sufficiently support special needs students and their teachers. The use of partnerships was raised as an important means of supporting them. Collaboration among the various professionals dealing with special needs students, as well as partnerships with community and various other organizations was proposed. In addition, the establishment of more unified methods of addressing students with special needs through more integrated intraministerial policies and funding strategies was recommended. *How can we better harness the various services available to schools, particularly services that cut across or have other institutions at their source and often are not well integrated into the school system?*

The need for clarification of definitions and terms in order to facilitate information comparability was raised by many of the participants in both their written and oral comments (Doré et al question 1). One participant, however, felt it necessary to take this further by clarifying the core ideologies and concepts and the values and beliefs we have attached to them.

Comments raised during this session also revolved around the issue of inclusion. Participants pointed to the need for evaluating and analysing the current arrangements and the impacts of inclusion on the classroom, more specifically the impacts on learning and more comprehensive measures such as self-esteem, social abilities etc., for students with and without special needs. As proposed by Doré et al in question 3, participants referred to the need for more research at the secondary level. There were also some questions raised about the methods of accessing integration practices (question 4 by Doré et al).

> *What are the range of practices in the way school systems are responding to meet the needs of students with special needs?*

Judy Lupart's paradox on equity and excellence in schools was cited and supplemented during the discussions. One participant spoke to some of the realities of inclusion in Quebec; as inclusion occurs, specialized and selective schools are opening their doors but only to those students with high academic standing. Other participants also pointed to the limitations of inclusion and its possible detrimental effects. Not all participants, however, shared this view of inclusion. Participants referred to the previous discussions on the subjects of citizenship, diversity, and equity and pointed to the strong connection between them. *How do schools respond to meet the diverse needs of their client and community?* "This is also an equity issue — it is not just what we believe in; but it is a matter of equity."

KEY QUESTIONS RAISED DURING SESSION 5: SPECIAL NEEDS PROGRAMMING

There is a need for the collection of baseline data on a pan-Canadian level.

What are the range of practices in the way school systems are responding to meet the needs of students with special needs?

What are the requisite supports that schools and, in particular, teachers need to effectively support students with special needs?

How can a more unified approach to special needs programming be adopted?

There is a need for clarification of definitions and terms.

We need to evaluate the impacts of inclusion on the classroom.

Increased use of qualitative research methods was called for.

What are the requisite supports that schools and, in particular, teachers need to effectively support students with special needs?

PANEL SESSION

The panel session sought to balance the priorities of the PCERA as well as provide direction on its future course. The panel consisted of the following:

- Élise Boisjoly, Director of School-Net, Industry Canada
- Jane Gaskell, Associate Dean of Education, University of British Columbia
- Jean-Pierre Voyer, Director General, Applied Research Branch, Human Resources Development Canada (HRDC)
- Charles Ungerleider, Deputy Minister of Education, British Columbia

An account of their presentations is provided in the following pages. Common elements and recommendations that emerged from their presentations appear below:

- need to broaden the view of education to encompass lifelong learning

- need for baseline data

- need to build on existing projects and initiatives

- need to partner with existing organizations such as Statistics Canada, HRDC, SSHRC, CMEC, and international organizations such as OECD

- consideration of a research council for education and lifelong learning

- consideration of the Canadian Employment Research Forum (CERF) model for future PCERA projects

- need to link researchers across Canada as well as develop connections between researchers, practitioners, and policy makers

- incorporation of case studies and other qualitative sources of research into large-scale studies

- importance of dissemination of research and of having research in a user-friendly format

- need for the Canadian Education Research Information System (CERIS) to be used as a clearing house for education research being carried out under the auspices of the PCERA

- clear lack of funding in the area of education research

Élise Boisjoly, Director of School Net, Industry Canada

In her presentation, Élise Boisjoly highlighted key points raised during the symposium, while also adding her own observations.

She primarily noted the discussions on the lack of funding for educational research and made reference to Paul Martin's budget for the fiscal year and the funding allocated to the health sector. More specifically, Ms. Boisjoly pointed to the funding reserved for the Canadian Institutes of Health Research (CIHR) and asked, "Is funding for a lifelong learning institute a dream we can have for education?"

Subsequently, Ms. Boisjoly referred to the discussions around the amount of research that needs to be carried out. She emphasized the need for research to be centred around the learner. Furthermore, she recommended the establishment of laboratories within schools where researchers could study and evaluate learners, schools, and school practices. With the involvement of the stakeholders, problems concerning dissemination of the findings would be minimized. She highlighted the fact that access to research was an important issue for policy and decision makers. Furthermore, she recommended that research impart precise questions and precise answers and reiterated the need for research to be available on a more timely basis.

Ms. Boisjoly called attention to Canada's participation in the global economy and the need to take advantage of existing organizations and mechanisms also operating in this field. She referred to the European Union's framework for collaborative research and the Organisation for Economic Co-operation and Development (OECD).

She also noted the extensive commentary during the discussions on the need for baseline data. Although this type of information is necessary, she pointed to the high cost and the time required to collect it. She suggested mechanisms where technology could be used in collecting this information in partnership with organizations such as CMEC, the Canadian Education Association (CEA), universities, and CERIS. Further, she pointed to the opportunity to make use of CERIS as a clearing house for education research and an interface between practitioners, researchers, and policy and decision makers.

Ms. Boisjoly also made reference to the policy framework put forth by Charles Ungerleider in his keynote address. She emphasized the importance of aligning learning goals to outcomes.

Élise Boisjoly is the Executive Director of Canada's SchoolNet and LibraryNet at Industry Canada. As an electrical engineer, Ms. Boisjoly started her career working on informatics and research development projects with the federal government. Her interest in the impact of technology on social changes eventually led her to manage a national awareness program to interest young Canadians, particularly young women, in science and technology. In 1993, she became involved in a burgeoning project to help Canadian schools and public libraries take advantage of the opportunities presented by the Internet – Canada's SchoolNet and LibraryNet. In addition to leading the SchoolNet initiative, Ms. Boisjoly was co-chair of the education committee for I-NET '96 and is a country leader for the G-7 Information Society Project: Transcultural Education and Training. She is also serving on the CANARIE education board.

Jane Gaskell, Associate Dean, Education, University of British Columbia

Jane Gaskell organized her commentary around a good news/bad news scenario. She started with five pieces of good news:

(1) the creation of the Pan-Canadian Research Advisory Council, through which the PCERA symposium got under way

(2) the useful discussions that took place during the course of the symposium in view of the participation from various constituents

(3) the compendium of research that resulted in a number of key areas to be pursued

(4) the increase in funding provided for the councils in the sum of $15 million and the increased complexity of research coming from Statistics Canada and HRDC, as well as joint initiative opportunities with the Social Sciences and Humanities Research Council (SSHRC)

(5) the presence of consensus, on a general level, during the discussions on the following: the need for looking at what is currently happening in schools through the collection of baseline data and best practices and through carrying out case studies; the need for studies to occur in schools and for them to be combined with large-scale survey research; and agreement on the need for better dissemination so that the findings reach schools and policy makers, as well as the academic community, here and internationally

The bad news Jane Gaskell reported dealt first with concern about the role of education research. She echoed some of the concerns raised during the symposium such as "Who is the public for this type of research?" and "Who is making use of this research?" Educational research, she pointed out, is not currently seen as a solid investment but instead as a diversion of educational funds. She also commented on how the outcome of the discussions had the tendency to revolve around politics instead of focusing on generating a research agenda.

To conclude her presentation, Dr. Gaskell spoke of initiatives in the field of education as well as next steps for the PCERA. She primarily identified initiatives funded through SSHRC, such as those promoting partnerships in the areas of literacy, federalism, social cohesion, and the knowledge society. She also pointed to the partnerships being developed with Statistics Canada and how the research is becoming more elaborate. She identified the need to build greater research capacity in the universities and referred to the Exemplary Schools Project, in which CEA was involved. She also emphasized the imperative of building on existing studies and research projects.

"Where do we go from here?" Jane Gaskell suggested the following:

• Require those in education to dedicate a portion of their funding to educational research.
• Establish an arms-length research council with representatives from different constituents, such as researchers, practitioners, and policy makers, to decide upon research priorities, to ensure continuous dialogue between constituents, to keep a consolidation of research, to develop new research ideas, and to bring together those already carrying out research. Alternatively, establish a light and contingent structure through which the PCERA can pursue its objectives.
• Define joint initiatives with SSHRC through organizations like CMEC.
• Develop specific projects and directly seek funding.

Jane Gaskell is a professor and associate dean in the Faculty of Education at UBC. She has been president of the Canadian Society for the Study of Education, on the Council of SSHRC, and on the PCERA advisory committee. Her most recent research is on exemplary schools and the politics of school choice.

Jean-Pierre Voyer, Director General of the Applied Research Branch, HRDC

Jean-Pierre Voyer began his presentation by referring to the initiatives he outlined during his keynote address:

- Youth in Transition Survey
- Post-Secondary Transition Survey
- another round of the Adult Education and Training Survey
- a second youth literacy survey under the aegis of the International Adult Literacy Survey, which will involve more life skills questions
- School Achievement Indicators Program (SAIP)
- a second round of TIMSS
- a school outcome measurement, in conjunction with PISA and OECD
- Workplace and Employees Survey
- the creation of indicators for readiness to learn

The first message Mr. Voyer sought to make is that many opportunities for partnering exist. He offered a letter of invitation for participating and for providing input and comments on the initiatives mentioned. He pointed to the consultative infrastructures already in place, such as those involving the provinces/territories and CMEC and expert advisory committees for the surveys. Moreover, he emphasized the need to build on current initiatives and to take advantage of opportunities in different organizations such as SSHRC, the Centre for Excellence, the Education Statistics Council, and OECD. Mr. Voyer added that HRDC is always open to partnerships on learning.

Second, Mr. Voyer commented on the lack of trust in this field. He stressed the need for practitioners, researchers, and policy makers to work together, to put differences aside, and to promote cooperation in addressing common goals.

He then suggested the Canadian Employment Research Forum (CERF) model as one that should be considered for education. He also commented on making the dream of a research council, akin to the Canadian Institutes of Health Research (CIHR), a reality by putting together a proposal in time for next year's budget.

Finally, Mr. Voyer sought to address the imperative of broadening the debate to include lifelong learning. He expressed the need to break down the traditional silos of education, social, labour, and economic policy. He stated that partnerships should reflect these facets.

Jean-Pierre Voyer currently holds the position of Director General, Applied Research Branch, at Human Resources Development Canada. Over the past four years, Mr. Voyer has devoted his energy to the establishment of the Applied Research Branch with a view to providing HRDC with a strong policy research capacity. The Applied Research Branch is responsible for applied research, socioeconomic experiments, and major surveys in the areas of social, labour market, and learning policies. The branch is considered to have the largest social policy research capacity in Canada.

Mr. Voyer has been with the federal public service since 1978, spending the early years of his career as an economist with the Department of Finance. After a short secondment to the labour movement (with the National Union of Government Employees), he joined the Regional and Economic Development Secretariat of the Privy Council Office. Mr. Voyer then joined the Economic Council of Canada where he directed projects relating to labour market and fiscal federalism issues. He joined Employment and Immigration in 1992 as a special advisor on income security policy.

Charles Ungerleider, Deputy Minister of Education, British Columbia – representing the Chair of CMEC

To start, Charles Ungerleider voiced the fundamental premise that education is about the health of society. His presentation was built around three core questions.

(1) What would be the consequence of failing to engage in some pan-Canadian initiative in education research?

Dr. Ungerleider gave the following response: policy development would continue to be episodic instead of programmatic. What polices are developed will not be able to benefit from systematic study and content that appreciates the variety and uniqueness that characterizes Canada. Moreover, he stated that the value of a pan-Canadian initiative would appreciate the differences and strengthen our knowledge of how certain processes and policies work in a broader context.

(2) What is the proper location for such research?

Dr. Ungerleider stated such a location would involve some form of consortium that would benefit from collaborations among researchers working in schools, school districts, ministries/departments of education, teacher organizations, and postsecondary institutions.

(3) How can ministries and departments of education align their policy evaluation processes to chart a long-term programmatic research agenda?

Dr. Ungerleider responded that a consortium of some form or a pan-Canadian approach might be developed. Furthermore, he noted that the proper focus for such an agenda would consist of Aboriginal education, special education, and programs of early intervention in the areas of literacy and gender equity. He identified these topics as priority areas in the educational system. Moreover, he stated that these topics address improving success and opportunity within the system in addition to improving the health of our education system and the health of society by extension.

Topics of secondary priority included citizenship, multiculturalism, and technology education. Dr. Ungerleider considered these to have received insufficient policy attention and to be less central to the priorities of ministries/departments of education and to school success. Moreover, he identified these topics as suffering from less complete conceptualization and having sharply contested issues. These topics need further refinement and clarification before they enter into a policy research agenda. In fashioning an agenda, he emphasized the need to focus on convergencies rather than divergencies.

To conclude, Dr. Ungerleider brought attention to four parallel processes that require concurrent consideration: policy development, budgeting, research and evaluation, and communication-education.

Charles Ungerleider assumed responsibility as Deputy Minister of Education in British Columbia on November 16, 1998. He is seconded from the University of British Columbia where he is a professor of the sociology of education in the Department of Educational Studies. Prior to his appointment as Deputy Minister, he held administrative office in the Faculty of Education as Associate Dean of Teacher Education. During his academic career, he has addressed a wide range of educational policies, programs, and issues, including governance, educational testing, citizenship education, intergroup relations, multiculturalism, media education, teacher education, and police recruitment and preparation. He is a published scholar who, until the time of his appointment, consulted with public agencies at the municipal, provincial, and federal levels.

Michael Wolfson, Director General, Institutions and Social Statistics Branch, Statistics Canada - Closing Comments

Michael Wolfson provided a summary of the research questions raised in the discussion similar to those reported in the preceding sections. In addition, he gave the following commentary on the proceedings of the symposium. First, he highlighted the fundamental objective of the symposium: the development of an initial consensus on research priorities that are tied to leading policy concerns in education. Although observations, opinion and preferences were made known during the discussions, Dr. Wolfson emphasized the main objective of identifying and specifying a series of research and researchable questions.

Second, Dr. Wolfson pointed to a spectrum of research and analysis consisting of basic or curiosity-directed research; policy-relevant research (i.e., research on a topical policy issue but not necessarily linked to a specific policy option); policy analysis (i.e., examining alternative policies that meet a specific objective and determining the efficacy of current policies); policy development; and policy advocacy. He stated that the middle of the spectrum — policy relevant research and policy analysis — is where our energies should lie.

Subsequently, Dr. Wolfson provided comments on research methods that received attention during the discussions. He referred primarily to the objections regarding the use of quantitative methods (e.g., large-scale surveys), as they were seen to have detrimental effects on a more holistic understanding of education. However, he wished to counter this view by promoting the combination of quantitative and qualitative methods by, for example, nesting case studies as a subsection of large-scale surveys. He noted that the question of classification came up a number of times during the discussions such as in the area of skills — generic skills versus work site specific — citizenship, and special needs. He also pointed to the need for appreciating heterogeneity within the various subjects areas addressed at the symposium.

Being an economist, Dr. Wolfson could not help highlighting key economic questions that emerged during the discussions. He referred to the requests for cost-benefit analyses for various kinds of programs and policies in addition to the notion of trade-offs (e.g., citizenship and "basic" education vying for space on the curriculum and the trade-off between equity and excellence).[3]

Subsequently, he addressed the need for data accessibility. In reference to CIHR, he argued that data availability is only one step in the process of supporting long-term research. He added that building a skilled group of research analysts and core funding for research institutions or nodes across the country is also required.

On a final note, Dr. Wolfson called attention to the topic of dissemination and how it was a major part of the consensus during the discussions. He noted that the mere existence of research is not sufficient, as it also has to be refined, digested, and disseminated. Furthermore the research needs to be available to practitioners, policy and decision makers, and the research community, as well as to the general public.

[3] Dr. Wolfson noted that the equity versus excellence scenario is difficult to prevent, unless additional funding becomes available.

Paul Cappon, Council of Ministers of Education, Canada (CMEC) – Closing Comments

Paul Cappon began his closing remarks with the observation that it is very stimulating to be in the presence of persons interested in education from the perspective of their own distinctive milieu. He went on to draw three principal conclusions from the deliberations of the previous two days.

First, he brought attention to the broad agreement by participants on the need for a Pan-Canadian Education Research Agenda. He echoed the broad agreement on a prioritized set of issues and questions to be explored, through which Canada's research capacity would strengthen as would the ability of jurisdictions to make fully informed policy decisions. In reference to Benjamin Levin's key elements for creating policy research capacity, Dr. Cappon noted several to which the PCERA can respond:

- good networks among researchers across disciplines and regions and internationally to allow mutual learning
- well-developed connections between researchers, practitioners, and policy makers that allow researchers to be aware of the interests and agendas of policy makers and that also allow policy makers and practitioners to be knowledgeable about current research
- vehicles that promote synthesis and applications of knowledge as well as creation of new knowledge

The second conclusion offered by Dr. Cappon centred around the need to provide ongoing coordination in the effort to build a pan-Canadian agenda. Coordination in this regard would lead to the accomplishment of the following five important tasks:

- Create conditions for fostering policy-relevant research on the specific issues and topics identified as priorities during the symposium or subsequently, particularly by linking researchers, policy makers, and funding sources in an ongoing way.
- Facilitate the reporting of results of such targeted research and workshops or symposia such as this.
- Provide a forum to integrate the individual research programs, both conceptually and in policy deliberations, knowing that the identification of focused, discrete research issues singly and in relative isolation from each other can lead to conceptual policy fragmentation.
- Monitor the carrying-out of the research agenda by reporting on which issues have been addressed and which other issues still require initiation, as well as reconsideration on a biannual basis, for example, of the priority list of work to be accomplished.
- Ensure research results in policy areas of immediate relevance to CMEC projects, such as the possibility of a citizenship education learning outcomes framework, and inform the education ministers.

Dr. Cappon's third and final concluding remark echoed the many comments raised during the symposium on the topic of dissemination. He noted the need for ongoing strategies for broader recognition of the work accomplished in the research and academic field in an attempt to reduce duplication of effort across the jurisdictions and to promulgate the knowledge to educators, to policy makers, and to the general public. He suggested thematic synthesis of existing research results to facilitate dissemination efforts and to increase the value to the people working in the jurisdictions. He also identified the need for ensuring a close link between research results and proposals by CMEC on pan-Canadian learning outcomes.

To close, Dr. Cappon expressed his sincere interest — an interest enhanced by the deliberations of the symposium — in the PCERA. Furthermore, he felt that the PCERA initiative, in conjunction with the work on education indicators, will result in a rich source of enlightened thinking that can systematically inform policy in jurisdictions across Canada.

Lifelong learning:
Policy issues and research needs

Presentation by Jean-Pierre Voyer (HRDC)
to the PCERA Symposium
February 16, 1999

- One key objective of this symposium is to address issues that are a common concern to education policy makers and practitioners across Canada.

- What I propose to do in the next 10-15 minutes is to outline some of the key issues that are of concern to Human Resources Development Canada in the area of education and learning. In doing that, I will also point to a few research gaps and recent research initiatives that the Applied Research Branch of HRDC has launched. Some of those initiatives involve a close partnership with CMEC and Statistics Canada.

- OECD countries are changing their approach to education issues. They are increasingly adopting the concept of lifelong learning to provide a framework for the implementation of policies in the area of human capital investment.

- Broadening the debate to lifelong learning has one clear advantage: it contributes to breaking the traditional silos between education, social, labour market, and economic policies. It creates a common language and allows for the introduction of more coherent public policies.

- The concept of lifelong learning is defined along several dimensions:

  - It is about continuing learning throughout the life course, as opposed to a stage of life starting after daycare and stopping with a first job.
  - It values education for its consumption dimension as well as its investment dimension.
  - It stresses universal access regardless of age, gender, or status.
  - It is not only about formal education in programs and institutions; it is about all learning experiences.
  - It does not discriminate between methods of learning; it is not restricted to formal education.
  - The capacity to learn is key — learning how to learn.
  - It stresses the role of various agents — governments, institutions, firms, parents — in the learning experience and therefore puts a lot of emphasis on partnership.

- Why should governments be concerned about lifelong learning? There are compelling arguments on both the economic and social sides.

- First, the emerging knowledge economy and society is demanding more skilled workers and more skilled citizens:
  - Rapid technological changes require a constant renewal of skills to keep up with changes.
  - A host of life activities other than work also require more and more familiarity with fast-changing technologies or require high levels of literacy.
  - I was at a meeting last month organized by the ILO, and Allen Larson, Head of DG-V argued that in ten years, 80 per cent of the technology we operate today will be obsolete and replaced with new technologies. By that time, given the current human resources investment record in Europe, 80 per cent of the work force will be operating on the basis of formal education and training at least ten years old. Only 20 per cent will have been through education and training in the preceding ten years.

- Our own analysis at HRDC indicates no generalized skills gap in Canada in the immediate future. At the moment, the supply of educated workers is more than meeting the demand, except for a few sectors where shortages are being experienced. Nevertheless, there will be a need for individuals to preserve their skills and maintain their employability if they do not want to be penalized with unemployment or low earnings.

- Those who do not have proper learning foundations or learning opportunities in a knowledge-based society risk exclusion. A widening skills gap can only lead to inequality and polarization of earnings and employment opportunities. Lifelong learning strategies can break this cycle and preserve social cohesion.

- The rationale for government to support lifelong learning is also very strong from the perspective of labour market policy.

- Industrialized countries have been turning to active labour market policies, as opposed to passive income support, to foster the reintegration of the unemployed or welfare recipients into the labour force. Training policies have more chances to succeed in a lifelong learning environment or culture.

- Finally, one of the biggest social and spectacular changes of the last 50 years is the large increase in that period of life called retirement. Canadians retire earlier, live longer, and live healthier lives in their old age.

  - Chances are that 20 years of daily golfing will sound attractive to some. But there have to be more worthwhile activities to fill one's life. Learning before and during that period of the life cycle can be an important determinant of a senior's quality of life.

- Let me now turn to some of the key policy issues or challenges that are of particular concern to HRDC.

- Research has shown that the early years of life are critical for the future success of individuals, at school and at work.

- There are optimal periods during which components of learning develop more effectively.

- When a window of opportunity is missed, more effort is required by the child, the family, and society as a whole to develop the particular learning component.

- The major question or challenge can be summarized as follows: Are we taking maximum advantage of the promising early years of life in order to foster our children's intellectual development?

- The participation rate of children in pre-school programs is low in Canada compared to other countries. Does Canada have no program in place for two- and three-year-old children?

- In France, for instance, publicly funded full-time pre-school programs are offered for two-, three-, four-, and five-year-olds. Teachers at the pre-school levels have the same qualifications as teachers at the elementary level, and a common pre-school educative program is applied throughout the country. While the pre-school program is not compulsory, almost all three-, four-, and five-year-olds participate.

- Quebec is slowly applying features of the French system with a new family policy introduced in September 1997.

- The latest Speech from the Throne proposed to measure and report on the readiness to learn of Canadian children so that we can assess our progress in

providing our children with the best possible start. Over the past four years, HRDC has developed a National Children's Agenda to study child development. We are now working with Statistics Canada on the enhancement of the National Longitudinal Survey of Children and Youth to enable us to calculate national and provincial/territorial indicators for children's readiness to learn.

- The policy objectives are as follows:
  - to monitor the level and change in readiness to learn as an indicator of human development;
  - to provide knowledge for effective and age-appropriate policy interventions in support of learning and human development.
- For older children and youth, the key issue is the dropout rates.
- The School Leavers Follow-up Survey shows that 15 per cent of youth aged 22 to 24 do not obtain a high school diploma.
- It also shows that school-related factors are given as the most important reason for quitting school.
- School factors include boredom, problems with school work and teachers, and skipping classes.
- Close to half of all leavers are not happy with their decision to withdraw from school.
- While about 14 per cent can be qualified as school dropouts (at age 24) among the population as a whole, this is the case for 34 per cent of Aboriginal youth and 26 per cent of youth with incapacities.
- OECD has proposed some benchmark targets for member countries in the area of learning. With respect to high school completion, they suggest that 90 per cent of 18-year-olds should complete upper secondary education or an equivalent apprenticeship training.
- Canada falls short of that benchmark. For the Aboriginal population, we do not even qualify as an industrialized country.
- More research is needed on the factors leading to dropping out of high school and on school-to-work transitions for youth at risk.
- Together with the Centre interuniversitaire de recherche en analyse des organisations (CIRANO), the department is currently participating in a project to look at the links between school results, time devoted to paid work, the decision to drop out, and the decision to resume studies.
- We are also replacing the School Leavers Follow-up Survey with the Canadian Longitudinal Youth in Transition Survey to examine key transition points in the lives of youth, through their transition from high school to postsecondary education, through postsecondary education, and through their transition from initial schooling to the labour market.
- Another one of our concerns is that 20 per cent of high school graduates do not meet the literacy requirements for entry-level jobs.
- Indeed, according to the International Adult Literacy Survey (IALS), 20 per cent of high school graduates are at literacy level 1 or 2. According to the HRDC Essential Skills Project, skill requirements of the low-skilled jobs are clustered around literacy level 3.
- Does this problem of low literacy levels of some high school graduates extend to higher levels of education? There are some indications that this is the case. The IALS has shown that high education level is not always synonymous with high literacy level.
- Research is needed to monitor school outcomes, to examine approaches other

than formal education, and to study youth at risk.

- Currently, HRDC is participating in many large-scale programs that examine the performance of students.

- The School Achievement Indicators Program (SAIP) shows that most 13- and 16-year-olds meet or exceed expectations in reading. The Third International Mathematics and Science Study (TIMSS) shows that none of the G-8 countries has as strong a performance as Canada's in mathematics and science.

- The joint federal/provincial participation in the OECD Programme for International Student Assessment (better known as PISA) will provide indicators on whether youth are acquiring necessary skills and knowledge, whether they are prepared to become tomorrow's workers, to continue learning throughout life, and to analyse, reason, and communicate ideas effectively.

- For young people between 20 and 24, challenges focus on two main aspects:
  - school-to-work transition
  - access to postsecondary education

- Young people stay in school longer and longer, and enrolments in college and university keep increasing. All's well on that front.

- However, young people do not always make wise choices.

- Some areas of study are not necessarily good investments or offer lower chances of success.

- Canadian students still tend to choose social-science related fields rather than pure science or health sciences.

- However, even those who choose science have no guarantees.

- To ensure a successful transition, young people must be properly informed about job and salary prospects in various occupational areas, in order to make enlightened educational choices.

- It is also crucial that colleges and universities adapt to the changing needs of the labour market.

- More research is needed on labour market information and rates of return on human capital.

- A new initiative is under way with the Forum of Labour Market Ministers (FLMM) to develop information products for youth.

- The other issue facing youth is access to postsecondary education, given the rising tuition fees.

- Tuition fees have increased in all provinces; the increases vary from 60 per cent in BC to 350 per cent in Quebec over the last ten years.

- The National Graduates Survey shows that, not surprisingly, the debt load of students has increased (both public and private). We do not know fully the consequences of this change in regime. There is no point in being alarmist, but we should watch it closely. A key policy challenge is to reduce or eliminate barriers to learning.

- The key challenges for the adult life stage are linked to the workplace. Low literacy levels prevail among large chunks of the adult work force.

- There is a much higher proportion of low-skilled people in the older age cohorts.

- The good news is that tomorrow's workers will be more educated.

- But, as research work done with the IALS has shown, skills and literacy tend to deteriorate over time if not maintained and strengthened in daily practice. Projections show that this deterioration, given the current human resources investment practices, may well wipe out the gains made through the higher levels of education of the younger cohorts.

- The upshot is that low-skilled workers represent quite an important proportion of the Canadian population, and, unless remedial actions take place in terms of maintaining or reinforcing skills, their number will remain high.

- Access to training and education by low-skilled workers is another of our concerns.

- There has been considerable debate on whether education and training is an employer or an employee responsibility.

- Recent federal initiatives have favoured the employee route, by providing a host of fiscal incentives targeted at the individuals. Given our institutional framework and practices, this makes sense for many workers. People should be responsible for their employability; they can negotiate implicit contract or collective bargaining agreements that take account of their learning needs.

- The problem is that Canadians with low skills are the least likely to access on-the-job training. As far as training by the employers goes, those who have got, get.

- The measures introduced by the federal government providing incentives for investment in one's training and education are not likely to attract many low-skilled workers.

- There is a need to find additional ways to help Canadians gain access to information, decision tools, and opportunities so they can become more self-reliant and invest more in themselves. We need to promote a flexible framework for skills acquisition throughout the working lives of individuals.

- The number of seniors as a percentage of the total population is increasing.

- The length of the last phase of the life cycle is increasing.

- For older people, learning issues may be quite different than for other groups.

- The chart shows that not only has life expectancy increased, but the age of retirement has been significantly lowered.

- One policy issue is to ensure that the availability of time and the experience of seniors is put to use. What can be done to allow seniors to play a larger role as educators and/or mentors for children, young people, and adults?

- I have presented the rationale for lifelong learning, and I have highlighted a few issues of specific concern to HRDC. To conclude, let me summarize what could constitute a series of strategic policy objectives for the implementation and promotion of lifelong learning by governments:

  - Fostering a lifelong learning culture.
  - Strengthening the foundations of lifelong learning. This is why it is so important to follow the development of young children from birth to school years.
  - Promoting smooth transitions from school to work, from work to school, from formal learning to non-formal or informal learning and vice and versa.
  - Ensuring access to all. Access is not only a question of the cost of learning; it is also a question of real opportunities.
  - Creating the right incentives for increased human capital investment.

Notes on the Development of a General Framework for Policy Evaluation

Charles Ungerleider[1]
Deputy Minister of Education, Province of British Columbia
February 17, 1999

In the broadest sense, evaluation involves the application of standards to the judgment of some phenomenon or event. Research studies that take the evaluation approach are decision-oriented in the sense that they attempt to determine whether or not the pursuit of a particular policy was efficacious. Though they rarely attempt to analyse why or how the pursuit of a particular policy affected outcomes, research studies of the evaluation type that <u>do</u> make such an attempt are more useful to those responsible for policy and planning than those that do not.

A goal-directed evaluation involves the interpretation of empirical observations within a framework defined by a system of values. To perform a useful evaluation — that is, one that yields results that are helpful in making decisions — two somewhat specific "configurations" must be developed.

The first of these represents the appropriate system of values and is a configuration of explicit policy goals. Several technologies have been devised for explicating goals in ways that facilitate evaluation activities. Probably the best known — but not the only one — of these is the "behavioural objectives" approach exemplified by the work of Popham and his associates.

The second configuration is a set of procedures for designing and collecting observations that are the bases for evaluative conclusions. This configuration comprises eight articulated categories, each of which depends, in some important way, on the array of goals that have been set for the policy.

These two configurations are represented diagrammatically in Figure 1. The first element in this diagram — the box on the left-hand side, labeled "Policy Goals and Objectives" — is representative of the configuration of the goals and objectives of the policy. The second configuration consists of the remaining eight elements and their inter-relationships.

There are four major groups of factors that are of concern in a policy evaluation. They are represented by the "horizontal dimension" in Figure 1. The first of these are <u>contextual</u> factors, which include descriptions of the educational community in which the policy is to be implemented.

The second important set of factors is designated as <u>resources</u>, which includes descriptions of relevant characteristics of students, school personnel, hardware and software that are actually involved in the policy.
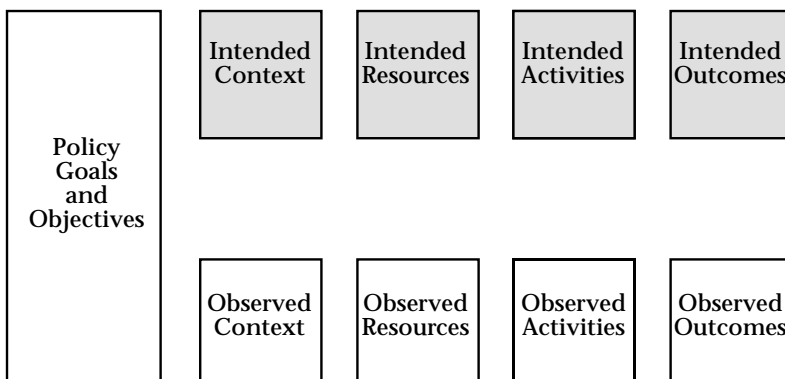

Figure 1: Policy Evaluation Framework

The third set is designated as <u>activities</u> and includes the set of transactions that occur, or that are intended to occur, during operations. Finally, there are <u>outcome</u> factors, indicators of the impact or efficacy of the policy. The outcomes to be examined are implied by the goals of the policy.

The "vertical dimension" of Figure 1 represents the two major frames of reference for specifying the four sets of factors described above. "<u>Intended</u>" implies that policy objectives can be set for context, resources, activities, and outcome factors. "<u>Observed</u>" implies that the stated intentions can be verified by empirical and objective means.

This framework of policy evaluation is a somewhat simplified distillation of several abstract and theoretical evaluation models. It is designed to be both general enough to apply to a wide variety of real problems in policy evaluation and practical enough to be useful in those contexts. The framework implies four important types of evaluation activities:

1. Goals Evaluation: Judgment of the extent to which the policy goals are explicitly stated and rationally refined into specific objectives that imply operations and outcomes.

2. Rational Evaluation: Judgment of the extent to which the intended contexts, resources, activities, and outcomes are logically consistent with the policy goals and with one another.

3. Discrepancy Evaluation: Judgment of the extent to which the intended context is congruent with the observed context, the intended resources congruent with observed resources, and so on.

4. Causal Evaluation: Judgment of the extent to which observed behavioural outcomes of the policy are systematically related to context, resources, and (especially) activities, and to the interactions among them.

Rational evaluation seeks to determine whether or not the (a) contextual characteristics, (b) resources, (c) activities, and (d) outcomes are <u>consistent</u> with the goals of the policy enunciated. Rational evaluation involves the formulation of questions of the following variety:

Given a coherent and mutually consistent set of policy goals,

(i) what characteristics of the <u>context</u> are perceived to be necessary and sufficient to their attainment?

(ii) what configuration of <u>resources</u> are perceived to be necessary and sufficient to their attainment?

(iii) what <u>activities</u>, and what relationships among them, are perceived to be necessary and sufficient to their attainment?

(iv) what <u>outcomes</u> are perceived to be necessary and sufficient evidence of their attainment?

Rational evaluation is presented schematically in Figure 2. (See next page.)

```
┌──────────┐     ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐
│          │ ──▶ │ Intended │▶  │ Intended │▶  │ Intended │▶  │ Intended │
│          │     │ Context  │   │ Resources│   │ Activities│  │ Outcomes │
│  Policy  │     └──────────┘   └──────────┘   └──────────┘   └──────────┘
│  Goals   │
│  and     │
│ Objectives│
│          │
│          │
└──────────┘
```
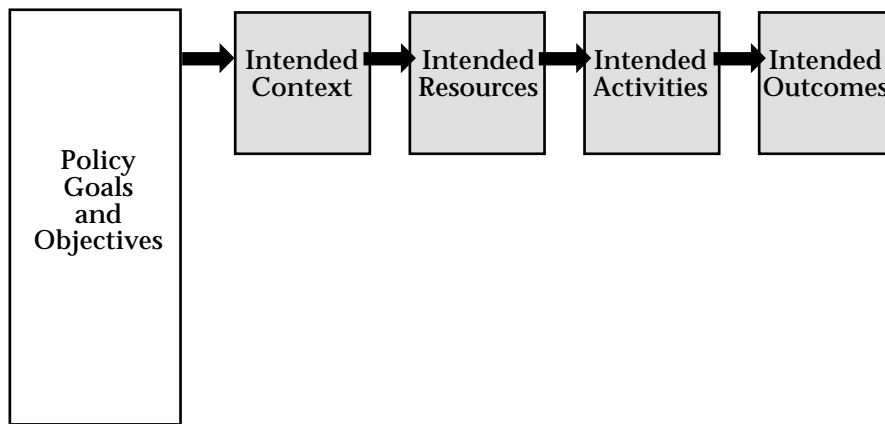
Figure 2: Rational Evaluation

Discrepancy evaluation seeks to determine the <u>congruence</u> between intended and observed (a) contextual characteristics, (b) resources, (c) activities, and (d) outcomes. Discrepancy evaluation involves the formulation of questions of the following variety:

(i) To what extent are observed features of the context congruent with the intended behavioural, programmatic, or environmental characteristics of the context? (e.g., To what extent is the policy applied to the context for which it was designed?)

(ii) To what extent are observed resources congruent with the intended resources? (e.g., To what extent are the individuals for whom the policy was designed among the participants?)

(iii) To what extent are the activities, and the relationships among the activities, congruent with the intended activities and the relationships among them? (e.g., To what extent are the organizational capabilities — training, delivery, transportation systems — commensurate with those specified in the organizational plan?)

(iv) To what extent are observed outcomes congruent with intended outcomes? (e.g. To what extent are the intended terminal behaviours manifested by the participants for whom the policy was designed?)

Discrepancy evaluation is presented schematically in Figure 3.

```
┌──────────┐     ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐
│          │     │ Intended │   │ Intended │   │ Intended │   │ Intended │
│          │     │ Context  │   │ Resources│   │ Activities│  │ Outcomes │
│  Policy  │     └────┬─────┘   └────┬─────┘   └────┬─────┘   └────┬─────┘
│  Goals   │          ↕              ↕              ↕              ↕
│  and     │     ┌────┴─────┐   ┌────┴─────┐   ┌────┴─────┐   ┌────┴─────┐
│ Objectives│    │ Observed │   │ Observed │   │ Observed │   │ Observed │
│          │     │ Context  │   │ Resources│   │ Activities│  │ Outcomes │
└──────────┘     └──────────┘   └──────────┘   └──────────┘   └──────────┘
```
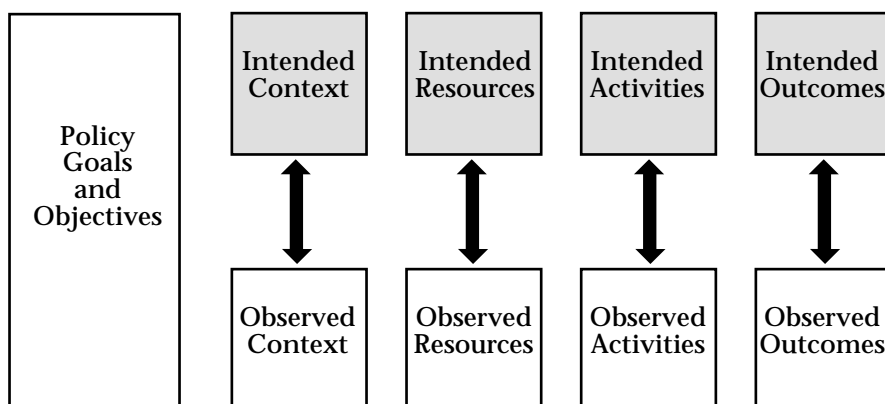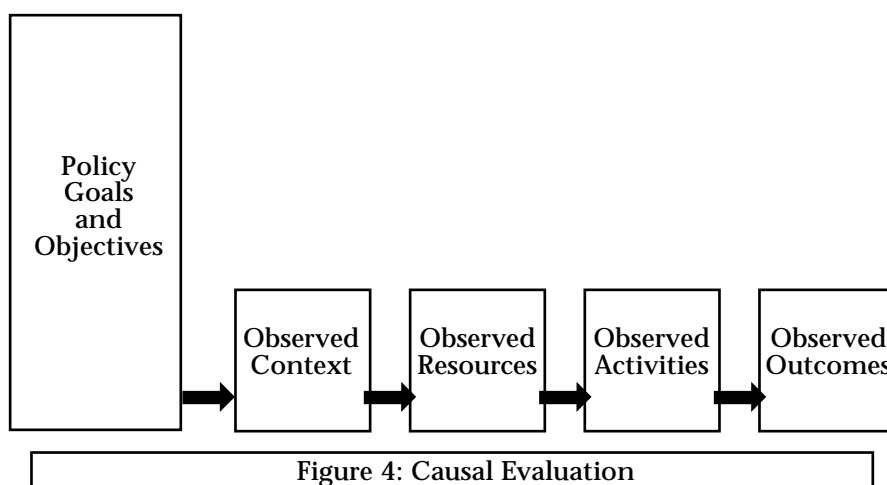
Figure 3: Discrepancy Evaluation

Causal evaluation has as its objective the description of cause-effect relationships among the variables (indicators) incorporated into the "observations" sequence of the evaluation plan. This type of evaluation is empirical. It is dependent upon structural aspects of the research design, and statistical inference is the primary system of logic employed. Restrictions on the inferences that can be drawn include well-known effects of sampling error, selection biases, and fallible measurement devices, to name but a few. This is the most technical phase, while also the most crucial one from the decision-making perspective, of a comprehensive policy evaluation plan. Causal evaluation involves the formulation of questions of the following variety:

(i) To what extent are observed outcomes of the policy correlated with the activities that occurred during policy implementation?

(ii) To what extent are correlations between activities and outcomes dependent upon measured resource characteristics of the policy?

(iii) To what range of contexts might the identified cause-effect relations be generalized?

Causal evaluation is schematically portrayed in Figure 4.

Figure 4: Causal Evaluation

Implicit in the preceding discussion is the notion that it is possible to pursue any one of the types of evaluation (goals, rational, discrepancy, or causal) singly or in combination. The choices those responsible for the evaluation make are likely to be governed by three related considerations: (a) the intended audience for the evaluation report, (b) the decision-making potency demanded by the audience, and (c) the resources available.

It is generally true that decision-making potency increases as one moves from goals evaluation through rational and discrepancy evaluations to causal evaluation. A more comprehensive conceptualization of evaluation may enable us to overcome the problems of internal validity that typically characterize research studies of the impact of educational policies. Thus, in order to evaluate the impact of a particular policy one must attempt to understand the relationships among (a) contextual characteristics, (b) resources, (c) activities, and (d) outcomes.

It is important to keep in mind that the decision to abandon, continue, modify, or enhance any policy cannot be made in the absence of the consideration of alternatives to the policy. Assuming that there is general agreement concerning the policy goals and a discernible logic to those goals, those responsible for

determining activities must exercise imagination in the creation of alternative activities suited to these goals. That is, even though a particular activity might not meet these policy goals perfectly, it would make little sense to abandon it if there were no alternative that was more likely to promote the efficient attainment of these goals.

Session 1: The Link Between Education and the World of Work

Excerpt from Benjamin Levin's: "Schools and Work: Towards a Research Agenda"

1. Understanding the dynamics of labour market experiences

    Although we have quite a bit of aggregate knowledge about the changing nature of the work force in Canada and about the situation of young people in the labour market, we do not yet understand very well the dynamics of this process. The links between family background, aspirations, school experience, work experience, and employment outcomes are not well understood, especially if we want to be able to speak at a level of generality less than the country or a province/territory.

    A particular concern is the relative role of skills, qualifications, personal attributes, or other factors in affecting entry into and success in the labour market. There appears to be a contradiction between employers' calls for skills and attitudes, students' belief in the value of formal qualifications, and research suggesting that background and personal contacts may be the most important factor.

2. Labour market experiences of equity groups

    The labour market situations of women and Aboriginal people, as well as other equity groups, have improved significantly over the last twenty years. Some work has been done on gender and economic outcomes. We need to know much more about the labour market situation of Aboriginal people and its link with education and training, as well as about strategies for improving the economic outcomes of young Aboriginals. The same is true of the disabled, a group whose labour market outcomes also continue to be poor. Improving outcomes for those who are currently "at the bottom of the pile" should be a very high priority.

    Another important equity group is those whose current level of education is low and who are thereby highly disadvantaged in the labour force. This category would include young school leavers, displaced older workers, and others who, for whatever reasons, have not obtained sufficient formal education.

3. The role schools can realistically play in assisting labour market adjustment

    Schools have made many attempts to strengthen their links with work, such as career advice, work experience, and cooperative education. Many of these initiatives have been funded by governments. However, we have little more than short-term data on the impact of these programs on young people's aspirations, ideas about work, or subsequent education and employment. What programs in schools, if any, actually help young people in their transition to the labour market?

    Similarly, although a majority of high school students do work part-time, we have very little knowledge about the ways in which this work affects their subsequent education and work, or the extent, if any, to which students' work is integrated with their formal education.

    Both these sub-issues are also applicable to postsecondary institutions.

4. The actual skills that people use at work, and the ways in which they obtain those skills

    There is a general assumption that formal education develops the skills that are required in the contemporary workplace, but only limited supporting evidence. We need to learn more about the real skills people use at work, and we need to understand much more fully the respective roles of formal education, non-formal education, on-the-job training, and other sources in equipping people with work skills. A particular aspect of this question concerns the degree to which advanced skills in language, mathematics, technology, and science, so often touted as essential requirements for work force success, are in fact widely used in workplaces in Canada.

5. Alternative structures or practices that might be desirable for assisting young people in the transition to work

    Policy making in this area often begins with the assumption that the answer lies in adjustments within the existing structure of educational provision. Given the unsuccessful history of our endeavours in this field, it is necessary to look more carefully at initiatives that lie partly or wholly outside the school system, such as various forms of on-the-job training, apprenticeship, or community-based training. Comparative work, looking at other sorts of structures in other countries, would be helpful – if it can be done without assuming that the policies of other countries can always be imported and applied in Canada. More careful evaluation and dissemination of current alternative programming within Canada would also be valuable. For example, knowledge generation and dissemination capacities in the field of adult education are even weaker than those in other educational sectors even though this sector is in some respects very innovative (B. Levin, 1997).

Excerpt from Hugh Munby, Nancy L. Hutchinson, and Peter Chin's "I Know How To Do It: Research Priorities For Cooperative And Career Education in Canada's Secondary Schools"

Curriculum in the Workplace

1. What types of goals may be realistically achieved by cooperative education (or by other forms of work experience), and to what extent are these goals context-specific?

Knowledge and Learning

2. What are the essential features of learning within experience that can be used to significantly enhance workplace learning during cooperative education and other work experiences provided by schools?

Inclusion and Students

3. What features of cooperative education enhance the inclusion of and meet the learning needs of exceptional students?

4. What features of cooperative education enhance the inclusion of and meet the learning needs of First Nations students and students from underrepresented groups?

Assessment

5. How can the objectives of cooperative education best be assessed, and how can cooperative education programs be evaluated for their overall effectiveness?

Session 2: Learning Outcomes and Teacher Education

• ***Learning Outcomes***

Excerpt from Henry Schulz, Glenn Clark, and Robert Crocker's "Learning Outcomes"

1. There is a need to assess the level of public support for contemporary provincial/territorial or regional formulations of outcomes and to determine the priorities that might be assigned by the public to various outcomes.

2. There is a requirement for professional validation of underlying contemporary statements of goals and outcomes and for the development of assessment instruments in areas outside the core school subjects for which there is public warrant for measuring outcomes.

3. There is a need to develop a pan-Canadian database from which long-term secondary analyses and longitudinal results can be derived.

    While existing surveys cover an enormous range of context and input variables, existing surveys are of limited use beyond description because there is as yet little process data and most of the existing data cannot yet be linked to achievement. It would be better to consolidate all of the existing efforts into one omnibus study than to continue with a series of unconnected studies.

4. There is a need to examine classroom events more closely than is possible in large-scale surveys.

    It is difficult to gather adequate data on classroom process through teacher and student surveys. The only way to get close enough to classroom events is through observational studies. Although such studies are costly and labour-intensive, they are no more so than large-scale surveys, which rely on individual interviews or which, like SAIP, require an immense test-scoring effort. Such studies would be particularly useful as a means of corroborating promising relationships found in self-report data.

5. There is a need to examine more closely the factors that affect outcomes beyond the core subject areas. In particular, the possibility of conflicts in the conditions required to achieve different outcomes needs to be investigated.

6. There is a need to further develop the capacity for data analysis and model building, to build a comprehensive analysis phase into major projects, and to devote a larger proportion of resources to this task.

7. In order to move to the assessment of the full range of outcomes, there is a need for research on how to use, for system-wide purposes, the large amount of assessment information that teachers collect in the course of instruction, and to devise assessment procedures that may be administered and used directly by teachers.

8. Research is required on ways of making more effective use of assessment results to enhance instruction.

Excerpt from R.A. Yackulic and B.W. Noonan's "Measurement of the Full Scope of Learning"

1.   In what ways can existing assessment practices be adapted to better address the full scope of learning?

     Currently, large-scale tests focus on a relatively narrow conception of achievement. There is a need for research that adapts existing technology to measure goals related to the full scope of learning. Some specific questions could be as follows:

     a.   How can personal and social talents be assessed?
     b.   Is it possible to establish benchmarks for such skills?
     c.   What is the effect on instruction (and the more traditional learning outcomes) when nontraditional learning outcomes are the focus of large-scale assessment?
     d.   How does one ensure the validity of measures of nontraditional learning?

2.   In what way can emerging assessment technologies (e.g., computerized simulations) enhance the assessment of nontraditional outcomes? Can these technologies meet the need for realistic situations argued for by situated cognition theorists?

3.   To what extent does OTL (opportunity to learn) assist in defining the full scope of learning, and how can information on OTL assist current assessment practices?

4.   In what ways are *assessment for accountability* and *assessment to improve student learning* linked?

     A common premise is that assessment for accountability can serve to improve education; research is needed to examine the nature of the link between assessment for accountability and assessment for improvement.

5.   To what extent are existing pan-Canadian policies and practices congruent with curriculum goals and best-practice guidelines?

     All the provincial and territorial jurisdictions have endorsed the *Principles for Fair Student Assessment for Education in Canada.* With the rapid development of large-scale assessment programs, it is important for educators to know the extent to which such programs are congruent with those principles.

- ***Session 2 continued: Teacher Education***

Excerpt from Maurice Tardif, Clermont Gauthier, Diane Gérin-Lajoie, Yves Lenoir, Claude Lessard, Daniel Martin, Donatille Mujawamariya, and Joséphine Mukamurera's "Professional Knowledge and Education Training"

(Research questions are in the form of recommendations.)

1. To pursue the Conditions of Education (COE) project to build a database (statistical and documentary) across Canada about the teaching profession to provide all researchers, as well as government and school officials, in Canada diverse and accurate information on teachers from all provinces and territories and on their work and teaching practices, as well as on the school environments in which educators work and are being trained in Canada.

2. To carry out longitudinal studies across Canada about the current evolution of the education community and the training of educators, together with the other research recommendations we are submitting in this report.

3. To gather, organize, and make easily accessible to all education stakeholders in Canada (researchers, teachers, students, school, and government authorities, etc.) the main results of the research on teaching and education training, so they can be integrated into the training practices, programs, and policies.

4. To lead research initiatives in the provinces and territories where professional teachers associations were created or are about to be created, to assess the impact of this major change on education training and education.

5. To implement, in various locations in Canada, ongoing laboratories to study current changes in education and education training. Academics, educators, education and government officers, and representatives of public interest groups would participate; they would consult together and create change analysis and assessment tools.

6. To promote research initiatives on renewing the work force in education in Canada, and on means of facilitating the recruiting and integration of new educators.

7. Given that this model of professional training is being developed, given that it will provide many diverse practices, initiatives, and mechanisms, given that it is being slowed down by significant obstructions in universities and in the school system, to implement research initiatives across Canada dealing specifically with education training programs to understand all their components (models, principles, stakeholders, practices, mechanisms, resources, etc.), but also to identify innovating practices that have a positive effect on the quality improvement of preparation to teaching.

8. To develop a synthesis of research carried out about educational knowledge (covering classroom management and teaching of content) to identify concurring results that would not only assist in understanding educational practices but also in transforming this practice with the help of training to make it more efficient. These results should be integrated in education training programs.

9.   Basically, given the subject matter approach dominating education training and leading to methods hindering the integration of the various and necessary fields of professional knowledge, given the need for more global and integrated training approaches, it is important to review the training of university and on-the-job trainers in terms of linkage between subject matters to develop a close relationship between education training practices and the practices expected from future educators.

10. To promote research initiatives dealing with the ways teachers' school programs across Canada deal with the previous beliefs of students. Are they being taken into account? If this is the case, in what ways and through which mechanisms and training practices?

11. To carry out comparative studies about the mechanisms and practices used in short training (e.g., one-semester courses) and longer training (e.g., one-year internships), to assess their respective impact on students, on their beliefs, and, most importantly, on the lasting effect of the knowledge acquired during these programs.

12. To begin research initiatives about teaching and training practices by efficiently taking charge of the differentiation of students and their education success: challenged students, students from minority groups, students from other ethnic and cultural backgrounds, etc. These initiatives could be inspired from other similar programs in other countries.

13. To review the state of education in minority environments in Canada by assessing efforts put in place across Canada in provinces and territories where francophones are a minority. This review should take into account differences within regions, since working conditions are not the same everywhere and researchers up to now have mainly covered regional differences. This assessment should serve as a basis for a study throughout Canada concerning the training needs for educators working in French schools in minority settings.

14. To develop research initiatives aimed at identifying the level at which current education training is adapted to multiculturalism.

15. To undertake, mainly in large cities, research projects about selection policies for future educators, to see how they could be adapted to the need to recruit more candidates from all cultural and ethnic groups.

16. Finally, to review the current state of professional development programs in the education community in Canada to promote new learning approaches that would better meet the needs of future generations of teachers. Special care should be given to partnership programs (training schools, research schools, etc.) where teachers and other education stakeholders are accountable for their own training.

Session 3: Technology

Excerpt from Anne L. Jefferson and Susan D. Edwards' "Technology Implies LTD plus FTE"

1.   What levels of thinking skills are being taught through the application of technology in the classroom?

2.   What technology professional development programs are utilized by school boards for their teaching force? To what extent are teachers taking advantage of these programs?

3.   What is the cost commitment to a school, school board, and ministry/department of education to introduce and maintain the use of technology in education?

4.   What is the cost to establish a three-way partnership between boards of education, private industry, and ministries/departments of education for the purpose of ensuring that teacher preparation programs produce technologically literate teachers?

5.   How can ministries/departments of education together with school boards finance equitable access to technology?

Excerpt from Margaret Haughey's "Pan-Canadian Research Options: New Information Technologies and Learning"

1.   How can a stable infrastructure for developments in learning using new information technologies be ensured?

2.   What are the economics and sustainability of programs based on new learning technologies?

3.   In what ways have partnerships with private and/or other public sector partners been successful in providing quality technology-mediated learning opportunities?

4.   What effective learning strategies and modes of learning have been developed that make most use of the capabilities of the new learning technologies?

5.   What are the achievement outcomes of students who have undertaken on-line study?

6.   How are experienced and new teachers being prepared to work with the new learning technologies?

7.   How might the development of multimedia on-line learning resources be realized?

Session 4: Citizenship and Social Cohesion & Diversity and Equity

- ***Citizenship and Social Cohesion***

Excerpt from A.M. Sears, G.M. Clarke, and A.S. Hughes' "Learning Democracy in a Pluralist Society: Building a Research Base for Citizenship Education in Canada"

1. What are the specific knowledge, skills of participation, and dispositions of democratic living that Canadian children ought to learn in the course of their public school experience?

2. What levels of achievement are shown by Canadian students with regard to the three core elements of citizenship?

3. What general procedures should be employed to monitor progress in citizenship education at the pan-Canadian and provincial/territorial levels?

4. What would be the general features of a citizenship education program that takes into account our current level of knowledge about children's learning and how it can be fostered through instruction, particularly from the fields of situated learning and constructivist pedagogy? (This is a matter of establishing the design specifications for any curriculum development work in the field of citizenship education.)

5. Do graduates from faculties of education in Canada possess the expertise necessary to successfully implement citizenship curricula?

- ***Diversity and Equity***

Excerpt from David Corson's "A Pan-Canadian Research Program for More Inclusive Schools in Canada: The Diversity and Equity Research Background"

1. What pan-Canadian research program would help identify and describe different, effective approaches to Aboriginal-controlled schooling that other Aboriginal communities could learn from?

2. What pan-Canadian research program would help ministries and departments ease the integration difficulties currently experienced by culturally different children in school systems?

3. Can a pan-Canadian research program help reduce disparities in access to academic literacy among different social, cultural, and regional groups?

4. Can policy implementation research help in the design, review, adjustment, and coordination of equitable educational policies across Canada?

Excerpt from Terry Wotherspoon and Bernard Schissel's "Marginalization, Decolonization and Voice: Prospects for Aboriginal Education in Canada"

1. What kinds of education indicators are required to develop a complete understanding of the combined impact of social, "processual," academic, and outcome features of educational success? How can alternative measures of educational experience (like emotional security, school satisfaction, and development of life skills) be combined with traditional indicators to create a holistic measurement (and causal understanding) of educational success?

2. How can government departments and ministries and school jurisdictions at all levels, including First Nations, better coordinate their efforts to collect and share data on key education indicators, information about new initiatives and materials, and other issues of common concern?

3. To what extent can modifications to accommodate Aboriginal students and communities be incorporated into provincial/territorial education systems and adult education programs?

4. To what extent is the development of alternative schools or school systems essential for Aboriginal student success, and to what extent should these be publicly supported and funded? What forms of mutual learning and cooperation among systems have been attempted and implemented, and with what consequences?

5. What kinds of relationships must education institutions enter into with other public, private, and community agencies in order to foster educational success among Aboriginal people? Can schooling combine the mandates of the justice, social welfare, health, and education systems to foster holistic education that is appropriate for both Aboriginal and non-Aboriginal students? What kinds of factors promote or detract from these arrangements?

6. To what extent are the innovations that contribute to holistic education in alternative and Aboriginal schools applicable to the education of non-Aboriginal students and adult learners?

Session 5: Special Needs Programming

Excerpt from Judy L. Lupart's "Inching Toward Inclusion: The Excellence/Equity Dilemma in our Schools"

1. What is the current educator understanding of the term inclusive education?

2. How can we promote an accurate, coordinated understanding and practice of inclusive education in Canada?

3. What changes are necessary for schools, universities, government, and advocacy groups to align future efforts in support of inclusion?

4. Are there particular innovations in regular and special education teacher collaboration or teaming that promote a synthesis of expertise and practice?

5. How can we accurately assess the success or failure of innovations to promote inclusion?

Excerpt from Robert Doré, Serge Wagner, Jean-Pierre Brunet, and Nathalie Bélanger's "School Integration of Children with a Disability in Provinces and Territories in Canada"

1. Operational definitions and common indicators

    It seems to be a priority to begin a project concerning the definitions used for CWD (child with disability) and the statistical indicators used in the prognosis of the situation for Canada as a whole. Indicators from Statistics Canada and those used in provinces and territories could be compared to indicators from the US or OECD.

2. Comparative studies of the impact of policies and precedents

    Studies regarding the integration policies in provinces and territories seem limited (or obsolete in regard to the evolution of these policies). Thus, comparative detailed studies (for example, according to identified disabilities) linked to attendance statistics for various services, and results, would be useful. Moreover, it does not seem that the impact of court rulings has been subjected to detailed research.

    Research could generate documents about "good policies" (in the same vein as publications on good practices).

3. Result measurement and inclusion mainly at high school level

    Few studies have been carried out at high school level, which presents particular challenges (Schumaker and Deshler, 1988).

    It is absolutely necessary to study further the benefits for students in regular class integration in high school, considering challenges, the benefits or profits for students, and feasibility, i.e., the capacity to create in high school required success conditions.

4.   Success factors for integration

Integration in regular classes for CWD can benefit social development if integrated CWD interact frequently and positively with their classmates or, in other words, if CWD are socially integrated in their peer group (Guralnick, 1982; Guralnick and Neville, 1997). However, this is not always the case. Quality of social integration varies widely from one student to the other, some being well integrated, others facing problems (Siperstein and Leffert, 1997). Unfortunately, the understanding of these differences is limited, and there are no effective action strategies to improve the quality of social integration.

There is a need to assess three factors regarding the quality of the social integration of the CWD in a regular class: the level of social skills of the CWD, the disability level, and the actions used by the educator to assist in the integration. One can assume that the impact of the level of social skills and disabilities on the quality of social integration will vary according to the actions of the educator. If this assumption is true, it could have a significant impact on integration strategies for CWD in regular classes.

5.   Other questions

Finally, here are some questions that could lead to field surveys.

a.   How do we operate the transition from a system with special schools and special classes in regular schools, to a system providing for integration in regular classes? What is the impact on the development of students with special needs?

b.   How do we solve the paradox resulting from the implementation of a standardized provincial curriculum while promoting an individual approach for each one of them, to take into account student diversity?

c.   How are students identified as having special educational needs in the various school systems (the issue of operationalizing clienteles)?

d.   What types of partnerships between the school, the family, and the community can assist in the success of integration?

e.   How is it possible to provide for the integration of students with special needs in a fiscally constrained environment?