Observations on the INES Symposium

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Unlike such areas as health or economics, education has historically been local, even parochial, in its outlook, policies and practices. What has been described in the papers presented at this symposium, leads me to believe that we can finally point to an educational enterprise that, to use a somewhat overworked term, is "world class" in its scope, quality and ambition. The increased concern for quality, and interest in accountability, though often driven by the forces of international economic competitiveness, seems to have been the catalyst needed to drive countries towards establishing mechanisms for standardizing and sharing information. While we should not pretend that the development of comparative indicators is anything more than a first step towards understanding the factors that contribute to educational quality, work of the kind being done by INES is a necessary precursor to such understanding.

The papers themselves present a very clear picture of the INES enterprise, and I find that there is little need to comment on the details of what has been presented. Suffice it to say that the main concern I do have is with the ability to convey to the ultimate users of the data a picture of the underlying enterprise and of the scope of the effort needed to develop comparative education indicators. While the most visible INES products, the annual *Education at a Glance* publications and now PISA are fairly highly visible among researchers and policy makers, it is not at all clear that much appreciation exists for the scope of the effort needed to produce these documents. Indeed, I would suggest to the authors that they produce a version of these papers, perhaps to be called "INES at a Glance," in a form accessible to users of the main INES reports.

My main comments centre around the fit of the project of the productivity model on which it is based, the narrowness of the outcome measures available, the limits of the project in addressing the impact of education reform and the relative lack of emphasis on developing analytic relationships. I will also comment briefly on the possibility of using a project such as INES to help us move beyond the provincialism that has tended to characterize education in Canada.

A Fundamental Critique

I note in passing that the point made earlier about education being local can form the basis for a fundamental critique of large-scale indicators and assessment projects. There are many who argue that the local nature of education is not a matter of parochialism but is fundamental to the entire enterprise. It therefore makes no sense to compare education systems across provinces or countries or even, for that matter, across schools, because desired goals and outcomes, and the inputs and processes needed to accomplish these, differ fundamentally from one community and even one child to another. Any attempt to develop common indicators exerts an undesirable narrowing and homogenizing effect on education. The assessment of performance in core subjects is most susceptible to this criticism. If there is no core, there is no point in measuring core outcomes.

Since I do not share the view of those who would keep education local, I feel no obligation to develop this critique here. Nevertheless, I do sense that we will need to get beyond the relatively simple model which underlies comparative indicators if we are to head off eventual disenchantment about what indicators can accomplish and thereby encourage a retreat to localism.

The Productivity Model

Most education indicators projects are based on some variation of a core input-process-output model. However, the INES model seems to place little emphasis on the "process" component of this model. Except for the work of Network C, which seems less well advanced than the others, relatively little work has been devoted to getting inside the "black box" of what goes on in schools and classrooms. An example is the Network C focus on teacher supply and demand and teacher qualifications. Maria Hendriks (citing Hanushek and others) has argued that the difference between good and bad teaching can make a considerable difference to outcomes. The problem here is that teacher

qualifications and professional development activities are of limited value as proxies for good and bad teaching. Even the data on classroom activities gathered through the PISA school and student questionnaires cannot get us close enough to the day-to-day functioning of classrooms to be of much use.

PISA and other outcomes measures, as Jay Moskowitz noted, are intended to measure the long-term yield of education. While such a measure is useful on a descriptive or comparative level, it is less useful as a component of the productivity model. Because students are typically exposed to different teachers each year, measures of classroom processes, or their proxies, can capture only the effect over one year. It is likely that most students' experiences up to age 15 consist of a mixture of exposure to good and bad teaching. Measuring processes over the short term and outcomes over the long term inevitably leads to smaller measured relationships between processes and outcomes than the true levels. This, in turn may lead to an illusion that teaching does not matter. It might be argued that the ideal study for measuring the long-term yield of education would be a randomized clinical trial in which some children were exposed to school and others not. Since it is inconceivable that such a study could be conducted, we must content ourselves with investigating the relative effects of various approaches to schooling, in situations where there is relatively little variance across systems.

Broad Goals, Narrow Outcomes

It has become fashionable these days for education systems to develop "mission statements." I have recently had occasion to examine these statements for all of the Canadian provincial jurisdictions. These were found to differ in their wording but were highly consistent in broad outline. A typical statement is as follows:

To have each student develop the attributes needed to be a lifelong learner, to achieve personal fulfillment and to contribute to a productive, just and democratic society. (New Brunswick Department of Education, 2001)

It is clear that such statements establish expectations for the education system that extend far beyond the outcomes measured by even the broadest of current measures. A broad inferential leap is required to take us from, say, average scores on a mathematics test or

proportion of students graduating from high school, to any statement about whether the education system is producing lifelong learners or contributors to a productive society. While INES, more than most indicators projects, recognizes the need to obtain measures of broader outcomes, not much progress is being made in this front. Some complex activities seem to be under way to look at workplace learning and other adult literacy activities. Other outcomes, such as those surrounding citizenship or social responsibility, which come closer to those found in mission statements (and which, incidentally, are more likely to be found in social studies than in mathematics or science curricula), seem to remain untouched. It does not seem at all far-fetched to suggest that we should be as capable of measuring these outcomes as those in the core subject areas. This, along with measures of such cross-curricular attributes as critical thinking, would seem to be natural targets for development and large scale use of new measures.

Education Reform

The past decade has seen many efforts, in Canada and elsewhere, at macro-level reform of education systems. Centralization of funding control, consolidation of school boards, efforts to bring about higher levels of parental involvement, increased school choice, and mandatory testing are only a few examples from Canadian jurisdictions. Policy makers might reasonably expect education indicators projects to tell them something about the impact of such reforms. In reality, it is unreasonable to expect macro-level reform to have much impact on outcomes (though it may have a substantial impact on other areas of concern, such as costs), unless the reforms somehow impact on school and classroom practices. Indeed, the synthesis work of Herbert Walberg and his colleagues (e.g., Wang, Haertel, & Walberg, 1993) suggests to us that it is unrealistic to expect changes at levels that are distal from schools and classrooms to have much impact. While the debate over resource impact is still alive and well (e.g., Hedges, Laine, & Greenwald, 1994; Hanushek, 1994, 1996) it seems reasonable to argue that macro-level change can be expected to influence outcomes only if it leads to changes in the day-to-day school experiences of students. This leads us to the question of how large-scale indicators projects can contribute to developing the knowledge required to detect the impact of change. This requires a more direct focus on analytic relationships than has been the case to date.

Analytic Relationships

A case can be made that the core function of indicators projects is to help identify causal factors that contribute to more positive outcomes. While examining administrative data and conducting large-scale surveys such as PISA may not be the best tools for this purpose, techniques exist for at least a "quasi-causal" modeling approach. Again, more than most indicators projects, INES seems to be paying attention to the development of analytic relationships. In practice, these efforts seem to focus more on student characteristics and socio-economic (SES) status, than on variables that can be influenced directly by educational policy. In particular, there has been considerable analysis of what has come to be called the "socio-economic gradient" or the slope of SES on achievement, presumably because of its relevance to the broader issue of equity. Nevertheless, an argument can be made that this focus is misplaced since socio-economic status itself is not directly amenable to change through educational policy. What might be amenable to change is the gradient. However, unless we can link the gradient to features of school and classroom practices, we have no way of knowing what policies or processes are most likely to reduce the impact of SES on achievement. Unfortunately, neither INES nor anyone else seems to have developed a comprehensive structural model of educational outcomes. Compared to the amount of effort devoted to data collection and description, the theoretical and analytical effort seems to be quite low.

It follows from this that there is a need to get much closer to school and classroom practice than has been possible to date in most indicators projects. As already noted, even comprehensive questionnaires, such as those found in PISA, are of limited value in this respect. Observational studies, on the other hand, are highly time-consuming and expensive. Nevertheless, we should remind ourselves that extensive work of this sort was conducted in the 1970s and early 1980s. These were just beginning to have some real yield when funding seems to have dried up. I might suggest that an interesting challenge for INES would be to find ways to use some of today's technologies to collect and analyze classroom data on a large enough scale, and specifically on a cross-national basis, to get us back to where studies of teaching were two decades ago.

The Canadian Context

Canada must be a source of frustration to OECD planners because of its preoccupation with provincial jurisdiction in education. While subnational responsibility for education is the case in most federal states, the intensity of this concern in Canada makes it more difficult to make general statements about education in Canada than in other member countries.

Douglas Hodgkinson described how *Education at a Glance* and other INES publications are being used in Canada and how the INES work is related to similar Canadian projects. I am actually encouraged by this presentation to believe that the work of INES may help us think of education more as a national (or, as CMEC would have it, a pan-Canadian) priority. Indeed, it is only an unprecedented degree of cooperation among federal and provincial agencies, with CMEC as catalyst, that has allowed Canadian participation in OECD education activities. While we may still insist, for example, on provincial level sampling for PISA, we have not gone as far as to insist that Canada be treated as ten (or more if we count territories and language groups as is done for SAIP) independent jurisdictions in the international reports. Nevertheless, this cooperation has not extended beyond research and statistics, and we are far from anything that might be called national educational policies or priorities.

One of the consequences of provincial independence combined with cooperation on pan-Canadian and international indicators is that there is now considerable overlap in indicators projects. SAIP and PISA are obvious examples of this. Both of these also overlap to some degree with assessment activities in the provinces. For individual schools, especially in small jurisdictions, the testing burden is becoming quite high. A strong argument can be made that some of the resources now being devoted to assessment in core areas should be redirected towards developing assessments of broader outcomes. The same can be said for overlap between the Pan-Canadian Education Indicators Program (PCEIP) and the OECD indicators.

The details of how this might be done are for another day. Suffice it to say that it should not be too difficult to create a relatively seamless transition between provincial, national and international indicators. For example, the advent of PISA provides an opportunity to find a different role for SAIP, filling some of the gaps discussed earlier. Similarly, an obvious step in addressing both the problems of PCEIP and the lack of

provincial indicators in OECD would be to align these projects so that Canadian education indicators reports closely mirror *Education at a Glance*.

Conclusion

Projects of the scope undertaken by INES are relatively new in education. OECD has succeeded in assembling an impressive array of talent and resources to develop one of the most comprehensive systems that exist for assembling and analyzing educational data.

Two conflicting tendencies may be at play in determining the long-term value of such projects. First, projects of this nature, especially when sponsored by an international agency such as OECD, can take on lives of their own, independently of their value to anyone. Efforts of this nature may thus be as difficult to stop as to start. Since I am not suggesting that the work of INES stop, the greater risk is that they might also be as difficult to turn around as to start. This brings me to the second point. Unless such projects evolve in response to changing needs or advance to higher analytic levels, there is a risk that their work can be treated as routine, essentially telling the same story year after year, to the point that nobody any longer listens. I would hope that the work of INES does not fall into either of these traps and that the next decade will see an evolution in the direction of broader outcomes measurement, greater attention to process and the development of greater capacity for modeling educational outcomes and their antecedents.

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