# INTRODUCTION

# PLANNING *THE HANDBOOK*

## *Practice, Context, and Theory*

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### THE LANDSCAPE OF CURRICULUM AND INSTRUCTION

*Curriculum and instruction* refers to one of the largest and most diverse set of activities within the field of education. Many universities and colleges have departments and programs of curriculum and instruction, and there are state, provincial, and school board divisions and departments of curriculum and/or instruction. The study of the immense range of activities covered by curriculum and instruction defines the field of curriculum studies. The scope of curriculum and instruction activities is so broad that it consists of a diverse array of established academic and practical communities of subfields and specializations.

So broad is the practical, public display of concerns of curriculum and instruction and of its sub-fields and specializations that it encompasses almost the entire range of educational thought. Disentangling what is purely curriculum from what is education more generally is difficult. Ultimately, curriculum and instruction is delimited by configurations of factors, which Schwab (1960) called commonplaces, acting together in practical, real world environments. The significance of the breadth and practical relevance of curriculum and instruction is that these matters are central to educational thought and are never far from practical, political, policy, and public discussions in education.

Broadly speaking, the practical communities of subfields and specializations may be thought of as falling into three main areas: curriculum subject matters (e.g., history, mathematics, sex education), topics (e.g., antiracism, gender, indigenous education) and preoccupations (e.g., curriculum evaluation, curriculum implementation), and general curriculum or curriculum theory. This breakdown, without the latter general curriculum or curriculum theory area, more or less reflects

the curriculum structure and preoccupations of the schools. There are, of course, positions in university curriculum and instruction departments that have no counterpart in the schools. But when they exist, for instance, as a position in curriculum evaluation, equity, multicultural curriculum, or urban education, they are there because of practical realities in the schools, because of community and public concerns, or because of a combination of both. The landscape of practice drives the metalevel organizational structure and inquiry in curriculum and instruction. There can be little doubt from reading the literature that practical topics are revealed, understood, shaped, and sometimes improved by theoretical application and critique. But theory is not the principal source of practice and institutional organization. Practice and public concern are the ground and justification for university departments of curriculum and instruction and for the research and teaching pursued there. The university's curriculum structure and work originates in practice and is ultimately justified in practical and public terms. Justification, of course, comes in many forms, ranging from cooperative partnership to sharp critique.

Organizationally, the set of subfields and specializations are held together more by the idea of curriculum and instruction than by the scholarly bonds of a field of close colleagues with common academic interests in the form of conferences, journals, and other accoutrements of collegiality. This situation is seen in schools where teachers of different subjects and topics may belong to different professional societies, attend different professional development day activities and conferences, subscribe to different professional magazines, and so on. Likewise, in colleges and universities, members of a curriculum or curriculum and instruction department will rarely travel, meet, or work together except for general curriculum department considerations, such as staffing, program considerations, university and professional certification reviews, and social events. Apart from these general activities, departmental members may have relatively independent professional career trajectories.

The field of curriculum studies and the meaning of the term *curriculum* continues to undergo the significant growth noted by Jackson (1992) for the English language literature. This growth is related to the expanding range of practical, policy, and political matters in educational thought more generally; to the nature and quality of

public discourse; and to expanding philosophical and methodological possibilities (Green, Camilli, & Elmore, 2006; Short, 1991) originating in the social sciences, humanities, and arts. In the curriculum studies research literature, this expansion is most noticeable in the expanding diversity of practical subject matters and in the topics and preoccupations that are studied. Curriculum subject matter areas (science education and social studies education) and topics and preoccupations (reading, textbooks, language learning, antiracism, gender, achievement, and equity) are increasingly studied with a rich and nuanced assortment of methodologies, conceptual analyses, philosophical perspectives, and political and/or social considerations. Once nonexistent or small practical curriculum areas are now often considered fields of their own with conferences, journals, and books replete with competing academic and ideological outlooks.

Banks and Banks (2004), for instance, edited the massive 49-chapter *Handbook of Research on Multicultural Education,* a larger volume than this handbook of curriculum and instruction, for which multicultural curriculum is one of its topics. Banks and Banks show that multicultural education was linked to late 19th century and early 20th century African American scholarship and to the curriculum reform movement of the 1930s, but it was not until the impact of the civil rights movement in the 1960s and 1970s that this topic came into its own. Multicultural education has become an important part of educational studies in general and also an important part of curriculum studies as it appears in this handbook. Likewise, in recent years, curriculum and instruction has branched out into other areas in response to the diversification of cultures, languages, communications, economies, ecological systems, and ways of living in countries, locales, and inevitably in schools and in research related to curriculum and instruction. This intricate diversity poses both opportunities and challenges to all curricular stakeholders, such as teachers, parents, students, administrators, and curricular policymakers, in terms of finding new, multiple, and eclectic ways of making curriculum, managing curriculum, diversifying curriculum, teaching curriculum, internationalizing curriculum, and inquiring into curriculum.

Moreover, the diversity of inquiry in curriculum subject matter areas and in the topics and preoccupations is further enriched by the application of a wide array of alternative theoretical

possibilities infusing the intellectual arena from the social sciences, humanities, arts, and sciences. So expansive is this diversity, that favored and established theoretical sources in one topic may be mostly unknown or perhaps supplanted by competing theoretical positions in a related topic or preoccupation. This growth of practical diversity and range of available theoretical resources is now one of the curriculum and instruction field's most noticeable features. Moreover, comparative, cross-cultural, and multicultural curriculum studies are bringing forward different ways of knowing and being, which challenge taken for granted forms of logic, practice and theory, and rationality. In addition to these developments, the general curriculum or curriculum theory area has also been influenced by the social sciences, humanities, arts, and sciences. Here, too, there is a diverse array of writings, some with practical connections to curriculum subject matters and to the topics and preoccupations, and some concerned with more abstract matters.

## Assessing the Need for a Handbook

The breadth of the curriculum and instruction field and the diversity of its curriculum subject matters and topics and preoccupations presented the greatest challenge to conceptualizing and planning this handbook. As we began the initial stages of organizing the structure of this handbook, we wondered, "Was such an undertaking feasible?" To include all possible curriculum subject matters, topics and preoccupations, and general curriculum or curriculum theory positions would result in an index rather than a handbook. Accordingly, the task was one of finding a way to represent this imaginary index with an inclusive concept and framework. There is important precedence with several publications claiming a *Handbook of Curriculum* title. The classic, standard-setting document is Jackson's (1992) *Handbook of Research on Curriculum: A Project of the American Educational Research Association.* Over 50 scholars in diverse areas are represented in that handbook's author list. The Jackson handbook was important to our thinking.

In determining the need for a new handbook, we canvassed a cross section of curriculum scholars by letter, e-mail, telephone, and video conference. Strong support for the significance and impact of the Jackson handbook (1992) was expressed. There was also recognition of the need

for a new handbook that acknowledges the increasing practical diversity and complexity of the field's subject matters and topics and preoccupations. In addition, we undertook a literature review of curriculum journals for the period 1992–2005. This review reflected our interest in published research in curriculum and instruction and our attempt to size up developments in the field following the Jackson handbook. We paid special attention to published reviews of the Jackson handbook and to commentary on the overall state of the field of curriculum studies. The results of the canvas, the reviews of the Jackson handbook, journal reviews, and reviews of the state of the field revealed six matters that needed to be addressed in a new handbook: (1) a working vision or conceptualization of the field that respects its diversity; (2) a comprehensive and inclusive set of authors, ideas, and topics; (3) an international, global, and comparative outlook; (4) a target audience of curriculum and instruction practitioners as well as graduate students and university researchers; (5) a focus on post-1992 curriculum policy, practice, and scholarship; and (6) a representation of curriculum subject matters without covering specific subjects.

## Vision and Conception of the Field: Addressing the Six Needs

The first two handbook needs, conceptualization of the field and inclusiveness, are closely related. A conceptualization of the field that respects its diversity will be comprehensive and will include authors with widely different views. Our first thought was that the literature of curriculum theory might be the place to find inclusive conceptualizations. This literature was helpful to some extent. Reading this literature reveals a multiplicity of viewpoints, many of which could serve as a possible starting point for conceptualizing this handbook: social, political, philosophical, moral, historical, spiritual, theological, ecological, critical, epistemological, experiential, and others. Attractive as any one of these might be, there is a built-in exclusiveness to each that would, at the very least, result in other views being read through a particular lens if such were chosen to organize this handbook. Nevertheless, all of these views need to be welcome in this handbook's conception.

As we thought about this matter, we realized that any conception for this handbook other

than perhaps an alphabetized list of topics would give shape to the field and would, therefore, not be neutral with respect to other conceptual possibilities. Accordingly, our effort became one of advancing a conception of curriculum that was as inviting and inclusive as possible and then of making our view as transparent as possible. The remainder of this section serves this purpose.

### Comprehensive and Inclusive

We see curriculum and instruction as multidimensional and engaged in a dynamic interplay between practice, context, and theory. This dialogue shapes and is shaped by the experiences of curriculum stakeholders, such as students, parents, teachers, educators, curriculum policymakers, and administrators. In its broadest sense, this handbook emerges from a concept of curriculum and instruction as a diverse and complex landscape defined and bounded by schools, school boards, and their communities as well as by policies, preservice and inservice teacher education, public and political discourse, and academic research. While the Jackson handbook (1992) was driven by the latter, this handbook is oriented to practical places on the landscape, such as the topics and preoccupations of schools, societies, and governments. We think of curriculum primarily as a set of practical activities for which any and all research and theoretical positions that might apply to a curriculum problem, puzzle, or difficulty are considered. The starting point is practice and its needs; and while this may seem to some to state the obvious, it is important to note given the possible eminence that may be and sometimes is assigned to theory. We intend that this handbook's content be recognizable by curriculum practitioners as well as by curriculum researchers. Our hope is that both practitioners and researchers will see their interests reflected in this handbook's overall goal of bringing forward the practical and theoretical diversity, complexity, and vitality of the field of curriculum and instruction.

### International, Global, and Comparative

Historically as cultures and societies intermingled, education and what in parts of the West is called curriculum were influenced. The broad question addressed in this handbook is, "What happens when cultures meet and curricula are intermingled?" The study of these influences has tended to occur in fields other than curriculum, such as philosophy, history, sociology, and anthropology. There have, however, been international comparative curriculum studies and organizations. This handbook is designed to bring these initiatives up-to-date and to increase the prominence of comparative curriculum studies.

### Practitioner and Researcher Audiences

The intended audience—the practitioner, policymaker, and researcher—reflects the conceptualization of the field as a landscape of places, situated in context, where different kinds of curricula are enacted by school practitioners and teacher educators, where public educational debate is expressed in curriculum terms and reflected in state and system policies, and where research and theory eclectically connects with these matters. We are aware that it is likely that graduate students, teacher educators, and curriculum researchers will be this handbook's principal readers, but we want the world of practical curriculum as seen in schools, public discourse, and policymaking to be the starting point and ground of this handbook. With this in mind, we intend that curriculum practitioners will find this handbook recognizable, dealing with topics and preoccupations that directly relate to their practical world of curriculum.

### Changes in the Field Since 1992

The curriculum field as defined by curriculum subject matter, topics and preoccupations, and theoretical writing has been active since the Jackson handbook (1992). That handbook is a key document in the field. This current handbook focuses on post-1992 changes in practice, policy, and scholarship. Restricting chapters solely to this time period would unnecessarily interrupt the temporal flow of events. However, to the extent possible, developments since 1992 in the topics and preoccupations of curriculum studies as well as in its theory are brought forward.

### Representing Curriculum Subject Matter

Part I of this handbook, "Curriculum in Practice," is devoted to practical matters in which issues across different school subject matters are addressed. While Section A in Part I deals with important issues in the making of curriculum, there are no subject matter specific chapters. Readers of this handbook interested in

curriculum studies as a whole need to be aware that specific curriculum subject matters, such as social studies, reading, and mathematics are not treated. Nevertheless, the idea of subject matter in the curriculum is directly addressed in one chapter and found in others.

## FROM IDENTIFIED NEEDS TO HANDBOOK STRUCTURE

A preliminary handbook prospectus built around the above considerations was circulated to the 18 scholars who comprise this handbook's editorial advisory board. These scholars, who represent a cross section of diverse interests and scholarly pursuits in the field, were consulted on the need for this Handbook and on its direction; their views were incorporated into the development of *The SAGE Handbook of Curriculum and Instruction.*

Moving from the initial review and resulting six needs for a new handbook, we undertook several conceptual initiatives and refinements of the original six needs. We began by concentrating on the idea of recognizability. Recognizability is rarely an issue for researchers when research is being reviewed and drawn forward, but it is an issue for policymakers and practitioners who want to know what is happening in the world of research relative to their concerns. We grappled with this question by asking ourselves what it is that curriculum people actually do. We wondered if it would be possible to structure this handbook in a way that reflects curriculum work and that makes it possible to draw research together under these activities. As a result, three rather simple notions governed our thinking behind the final structure of this handbook: verbs representing curriculum work (e.g., making curriculum), the grounding of curriculum studies in practice, and the notion of experience.

Starting with a practical conception of curriculum focused on the experience of curriculum as it appears in schools, policy discussion, and public discourse rather than with reflective theoretical thought about it led us to structure this handbook from practice to theory rather than the other way around. Thus, *The SAGE Handbook of Curriculum and Instruction* is divided into three parts: Part I: Curriculum in Practice, Part II: Curriculum in Context, and Part III: Curriculum in Theory. This structure is intended as a symbol of how this complex field is given life and moves forward. We see curriculum as ongoing in schools and in state and provincial departments day by day, and we see it in daily public discourse in the media, political campaigns, and in professional organizations. Curriculum is visible in practical and public venues. We wanted to place this sense up front and to craft this handbook in such a way that the field's most obvious, visible features would be in the foreground. Abstract, theoretical thought could then be seen as eclectically taking its place as appropriate to these visible features of the curriculum landscape and its context.

This three-part structure should not be made more of than is intended by its symbolic representation of the field's central logic of resting upon and being grounded in the concrete practical activity called curriculum. We might as easily have used a two-part structure of practice and theory or even have reversed the part order, giving an appropriate codicil to our reasoning. We might also have used a different orienting language: curriculum practice, curriculum context, and curriculum theory rather than inserting *in* to each part title (e.g., "Curriculum in Practice"). Again, though it could have been otherwise, we chose this linguistic form to symbolically avoid one of the field's worries, which is that the form of theoretical writing called curriculum theory could become somewhat independent of curriculum, as if curriculum theory were a field unto itself and curriculum practice yet another field. Our linguistic use of *in* is an attempt to convey a sense that theoretical curriculum writing is part of curriculum as practiced, and that curriculum as practiced is conceptually enriched with added meaning when thought about in terms of context and theory.

The idea of experience and what curriculum people do led us to the verb structure that governs the naming of this handbook's six sections. As with our use of *in*, in the part titles, the use of verbs in the section titles, such as "Making Curriculum," could be otherwise, but is deliberately used to convey a particular concept of the curriculum field as practical, namely an action form of the practical. One might find this organizational structure of *doings* in the field useful while thinking that a different set of doings than those used in this handbook more adequately represents the field. We are not wedded to the particular set of six doings, though we do think they provide a usefully comprehensive map of the field. Within the six sections and their included chapters used in this handbook are

four chapters on making curriculum and three chapters on managing curriculum in Part I: Curriculum in Practice; five chapters on diversifying curriculum, three chapters on teaching curriculum, and three chapters on internationalizing curriculum in Part II: Curriculum in Context; and eight chapters on inquiring into curriculum in Part III: Curriculum in Theory.

## THE EDITORIAL PROCESS

The editorial process giving rise to the above considerations and handbook structure relied on an editorial advisory process. An editorial advisory board was appointed. Members were chosen primarily on the grounds of breadth of insight into the field and international interest and/or location. We consider ourselves particularly fortunate in having Philip Jackson on this board. Though Philip is well known for his scholarship, he is also known as a thoughtful, sometimes wry, observer and commentator on the field. He rises above a personal stance, and this is one of the reasons, no doubt, he was chosen to edit the *Handbook of Research on Curriculum: A Project of the American Educational Research Association* (1992). The board was involved in the process of defining and refining the purpose and scope of *The SAGE Handbook of Curriculum and Instruction* as found in our handbook prospectus. The board was also involved in suggesting authors and consulting authors.

The list of authors and coauthors is the result of a rather lengthy, thoughtful process. In addition to the large number of names suggested by the editorial advisory board, we independently scanned membership lists in relevant organizations, and we reviewed authorship in relevant journals, books, and professional magazines. Our process was to identify the first author and to invite and encourage that person to work with coauthors. The choice of coauthor was entirely up to the contacted author, though we encouraged the involvement of more junior scholars, including advanced doctoral candidates. We also suggested using coauthors with international experience and/or international knowledge of the relevant literature. In several cases the person we approached agreed to contribute to this handbook, but in a coauthored role, to which we readily agreed.

We gave a great deal of thought to the manuscript review process and sought advice on this matter from our editorial advisory board. Our decision was to appoint consulting authors for each chapter. There are advantages to a blind review process, but criticism, at the expense of manuscript improvement, can sometimes overshadow this procedure. Our purpose was to strengthen submitted manuscripts. As a result, our manuscript review process was an open one in which consulting authors gave their best critical advice on improving the manuscript, knowing that they would ultimately be identified with it. We believe the method was a good one. Though consulting authors were aware that their identities were revealed to the authors, strong comment was often offered—so much so that in one or two cases manuscripts were withdrawn or replaced. The result, we believe, is that *The Handbook* consists of a set of strong chapters.

Due to the extensiveness of the field of curriculum studies and because we wanted to explore diverse perspectives and meaning in each of this handbook's parts, we appointed part editors: Ian Westbury for Part I, Allan Luke for Part II, and William Schubert for Part III. These editors were chosen for their comprehensive grasp of curriculum and for their ability to step outside their own particular reference points to review the writing of others. Their editorial task was principally to write the introductory essay for each part. They were free to offer editorial comment on each chapter, something that was taken up from time to time. Moreover, we consulted with the part editors as our bank of authored texts grew and we were able to assess possible areas still needing attention. As a result, several chapters were commissioned at a later stage in the development of *The Handbook*.

Finally, we hope that readers will join us in seeing curriculum and instruction as a field grounded in practice and characterized by a continuous interaction among practice, context, and theory. This interplay is shaped by and shapes the experiences of diverse curriculum stakeholders—students, parents, teachers, educators, policymakers, administrators, teacher educators, and curriculum scholars. To understand and to participate effectively in this interplay, flexible deliberative methods and flexible application of ideas are needed, both of which are expressed in *The Handbook*. Every chapter in this handbook brings forward the best and most important research and theory relevant to that chapter's topic. The chapters are neither prescriptive "how to do it" chapters, nor are they

polemical. Taken together, the set of chapters constitute a scholarly summary of research and theory within a practical framework designed to foster the advancement of the field of curriculum and instruction.

## References

Banks, J. A., & Banks, C. A. M. (Eds.). (2004). *Handbook of research on multicultural education* (2nd ed.). San Francisco: John Wiley.

Green, J. L., Camilli, G., & Elmore, P. B. (Eds.). (2006). *Handbook of complementary methods in education research.* Mahwah, NJ: Lawrence Erlbaum.

Jackson, P. W. (Ed.). (1992). *Handbook of research on curriculum: A project of the American Educational Research Association.* New York: Macmillan.

Schwab, J. J. (1960). *The teaching of science as enquiry.* In J. J. Schwab & P. F. Brandwein (Eds.), *The teaching of science* (pp. 3–103). Cambridge, MA: Harvard University Press.

Short, E. C. (Ed.). (1991). *Forms of curriculum inquiry.* Albany: State University of New York Press.
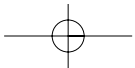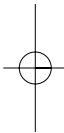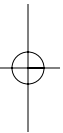
# PART I

## CURRICULUM IN PRACTICE

IAN WESTBURY

> *The new studies do not have an opportunity to show what they can do, because they are hampered by machinery constructed for turning out another kind of goods; they are not provided with their own distinctive set of agencies.*
>
> —Dewey, 2001, p. 394

These words, written by Dewey over 100 years ago, identify quite precisely the core problem of both the past and the present around the making and management of curricula, whether documents or texts, that is, objects or pedagogy; that is, activities or school reforms; that is, systems (Leander & Osborne, in press). The animating questions that lie behind all curriculum making—"What do we want to do, and why?" and "How can we do it?"—were Dewey's questions. His conclusion about his situation must also be our conclusion: "Our difficulties . . . come not from paucity or poverty [of aspiration] but from the multiplication of means clear *beyond our present powers of use and administration* [italics added]" (Dewey, 2001, p. 392). Aspirations that cannot be expressed in "use and administration," that cannot be implemented and given the power of routinized agency cannot sustain schooling as an institution. He went on to note:

> It is, of course, agreeable for those who believe in progress, in reform, in new ideals, to attribute these reactions [i.e., the persistence of "conservative" practices] to a hard and stiff-necked generation who willfully refuse to recognize the highest goods when they see them. . . . The simple fact, however, is that education is the one thing in which the American people believe without reserve, and to which they are without reserve committed. . . . *If then the American public fails, in critical cases, to stand by the educational newcomers, it is because these latter have not yet become organic parts of the education whole—otherwise they could not be cut out* [italics added]. (Dewey, 2001, p. 390)

For Dewey (2001) the core of this "education whole" was found not in curricula, but in the institutional and organizational forms that constrain and direct the practice of schooling: "the reality of education is found in the personal and face-to-face contact of the teacher and the child. *The conditions that underlie and regulate this contact dominate the education situation* [italics added]" (p. 394). As Dewey recognized, these conditions encompass the forms of organization

that lie at the heart of the school system (e.g., age-graded classrooms, structured curricula, subject teaching, teacher education) and, as Welner and Oakes (Chapter 5; see also Levin, Chapter 1) emphasize, the public narratives of education and schooling that animate these forms. And a century later Michael Fullan (Chapter 6) echoes Dewey's insight with his recognition that fundamental curriculum change requires sweeping changes in the conditions that underlie and regulate the contact between the teacher and child and between teacher and teacher. Fullan goes on to cite Spillane's (2004; see also Deng & Luke, Chapter 4) conclusion that any introduction and routinization of significantly new curricula or pedagogies requires "sustained engagement with an idea . . . and [the recognition] that the understanding [of such ideas] takes years rather than months to acquire" (p. 116 [Chapter 6]). Schools as organizations are not built for such sustained engagement with ideas. Their policies and structures, the conditions that create and dominate their situation, have been built to support the routine delivery of schooling as a service.

This is not to say that curricula and pedagogies do not change in often fundamental ways. Dewey was writing at a time when elementary schools across the Western world were being transformed (see Cuban, 1993; Lundgren, 1983). Far-reaching changes in the structures of schools, curricula, and teaching practices are ongoing across the globe (see Anderson-Levitt, 2003; McEneaney & Meyer, 2000). Means (Chapter 7) highlights the way in which software packages have swept into schools and brought major changes around the teaching of, say, writing. The point at issue—100 years ago and today—is the possibility of intentional, planful, and planned curriculum change that is reform. That possibility lies at the heart of the idea of all curriculum making and management. It is the question that circles around all of the chapters in this part of *The Handbook,* "Curriculum in Practice." The stance that curriculum developers and policy makers take toward the possibility of such purposeful change determines the aspirations they have for their practice and for the theoretical understanding of the relationship between policy and the inner work of schools. Needless to say, these issues lurk around all of the chapters in Part I as the practice of curriculum making and curriculum management comes to center stage.

## FRAMING THE CURRICULUM-MAKING CONUNDRUM

Michael Fullan (Chapter 6), Barbara Means (Chapter 7), and I (Chapter 3) review in different ways the history of the idea that curricular changes can be designed in capitals—Washington, DC; London; Toronto; and so on—and then readily implemented in schools. Fullan ends his review with the conclusion he offered 30 years earlier when he began his project exploring the idea of curriculum implementation. Objects, activities, and systems offered to schools from the outside tend not to be implemented with any fidelity to the originating idea; and even when faithful implementation is initiated, the effort is not sustained. However, Fullan does not share the pessimism about the possibility of planned curriculum change that his findings would seem to foreshadow. Rather he contends that we have learned that curricula that are designed and then implemented on the foundation of a rigorous analysis of the conditions that have led to the all too typical failure can realize their ambitions. Well-constructed curricula and effective policies for implementation can bring about improvement in students' mastery of, for example, reading, writing and math. It is, Fullan implies, the task of the curriculum makers and advocates of changes in the inner work of schools to move analytically, all the time building the findings of rigorous analysis into their theories of action. It is the task of research to elaborate the foundations for those theories of action. And in that, the curriculum changes Fullan discusses were politically led; there is the further implication that the machinery of school systems can be re-engineered to develop what Dewey termed powers of use and administration directed at far-reaching, systemic curriculum change.

The literature I review (Chapter 3) overlaps the literature that Fullan discusses, but I reach a very different conclusion: that the architecture of school systems is carefully designed to impede reforming initiatives from above or outside. Schools are designed and constructed for the

routine delivery of services to local constituencies. Curricula, whether old or new, are but one, by no means central element on the landscapes of schools. From this perspective, the school system is an agency that should exist to support and protect the local service, and it breaks rather than improves that service when its leaders lose sight of this reality. Apple (Chapter 2) and many other contemporary commentators contend, for example, that the No Child Left Behind reform is breaking American schools.

Welner and Oakes (Chapter 5) and Means (Chapter 7) also reach a similar conclusion, although from somewhat different starting points. As they make clear, there are many proposals made for new forms of school organization and new curricular packages, but these offers all too typically fail to provide what is promised—their promised benefits are beyond schools' and systems' powers of use and administration. For Welner and Oakes the attractiveness of these many offers does not come from any demonstrated capacity to bring about what they promise, but comes from the cultural plausibility of the claims made by their advocates. They are siren songs, narratives, and symbols grounded in cultural norms and/or visions of a new order.

However, when the issues facing curriculum making and management are framed in this way, we are left with an uncomfortable either-or situation. Thus my reading of Fullan's chapter suggests a prudent optimism as we face the task of addressing the needs around the schools. Welner and Oakes' and Means' chapters and my chapter suggest the need for a sense of pessimism, even fatalism, in the face of the inevitability of the gap between aspiration and agency. As Fullan presents it, decision makers can look for success in both curriculum making and implementation if they work within a theory of action that is built on the basis of real experience and thorough analysis and carefully put in place. Passivity in the face of real needs is not appropriate. But as Welner and Oakes and Means present it, while schools do change as a result of social movements (see Apple, Chapter 2), there is little or nothing that can be done by curriculum makers to direct that change. Indeed, as Levin (Chapter 1) makes clear, much that passes for curriculum making should also be understood in terms of social movements. There are challenges in abundance, but there is little or nothing that can be done to plan for or direct the implementation of the objects, activities, and systems that might address those challenges.

This interpretation of the dilemmas around the idea of curriculum change can be readily reframed in terms of the classical top-down or bottom-up conundrum. Top-down curriculum construction can design new objects and systems, but can never give its developments an authentic institutional agency. Bottom-up development can yield agencies in local places, but cannot provide the conditions necessary for institutionalization of the new agencies. We have a Hobson's choice. However, what is lacking in such formulations is any sense of schooling as a human-constructed organization open to reinvention and amenable to the possibility of the reconstruction that Fullan envisions (see Westbury & Milburn, 2007).

## RESOLVING THE CURRICULUM-MAKING CONUNDRUM?

Levin makes it clear why the political managers of school systems have difficulty intervening in coherent ways into the inner work of schools. But as he also highlights, the policies that are the outcomes of their work do determine the framework of the educational whole, that is, the organization of the school and school system. What might this key recognition imply?

Those who work at the chalk-face, in the schools and in teacher education and teacher development, are the only ones with the experience and practical knowledge that is the prerequisite for inventing curricula and pedagogies. It is only those at the chalk-face who can make curricula and school subjects that address their needs and that can be implemented in the light of their capabilities and the demands of the classroom and these (real) students (see Deng & Luke, Chapter 4).

But once agency is shown, and shown to be good on a local scale—and to have a claim for incorporation into the fabric of the larger system—how does widespread acceptance and use come about? How can institutional change precipitate around such new agencies? Can widespread use—that is, adoption and implementation—be achieved as an intentional outcome of

policy making? Can any one of the big agenda items that surround practice in contemporary schools—for example, pervasive inequality of outcomes and the close link of outcomes to social class, globalization, multiculturalism, and the science for all that Deng and Luke discuss—be addressed through the purposeful uptake of appropriate objects, activities, and systems? Or must we be content to rely on the random mechanisms of social and cultural change? In other words, is there a policy architecture that can harness for the system at large the entrepreneurship and inventiveness and the practicality and usability that are only available at the chalk-face?

It is a contemporary truism that governments themselves cannot initiate and direct sustained economic, social, and cultural development. That is the task of the communities of practice in the private sector as they respond to the real economy and society. However, governments can create the structures (e.g., the rule of law, tariff regimes, and the like) that frame opportunities for growth- and social change-directed initiatives and their success. What might be the analogue of such a way of thinking as we consider an architecture of a school system that supports curriculum work directed at significant changes in the inner work of schooling? What is there to be known about supporting changing practices in the communities within the schools? How can creative, chalk-face-led curriculum development be built into face-to-face communities of practice to become part of the routine work of teaching? How do new curricular objects, systems, and activities diffuse beyond their immediate worlds of invention and development? What roles do such subsystems as R&D (see Means, Chapter 7, "The ESCOT story"), assessment (see Barnes, Clarke, & Stephens, 2000), and teacher education have to play in the institutionalization of change? What roles do new forms for the delivery of schooling, such as vouchers, charter schools, school-business partnerships, and so on have to play in advancing the high priority agendas around education and schooling?

As is writ all of the chapters in this part of *The Handbook*, engagement with the dialectic of policy and practice around the inner work of schools, curriculum making, and curriculum development implies an engagement with such issues. Curiously—because that is not the way his work is usually understood—such an engagement invites us to turn to Dewey's 100-year-old exploration of the sociology of his educational situation. In that essay, he sets out a language and way of thinking about our educational situation.

## REFERENCES

Anderson-Levitt, K. (2003). *Local meanings, global schooling: Anthropology and world culture theory*. New York: Palgrave Macmillan.

Barnes, M., Clarke, D., & Stephens, M. (2000). Assessment: The engine of systemic curricular reform? *Journal of Curriculum Studies*, *32*, 623–650.

Cuban, L. (1993). *How teachers taught: Constancy and change in American classrooms, 1880–1990* (2nd ed.). New York: Teachers College Press.

Dewey, J. (2001). The educational situation: As concerns the elementary school. *Journal of Curriculum Studies*, *33*, 387–403. (Original work published 1902)

Leander, K. M., & Osborne, M. D. (in press). Complex positioning: Teachers as agents of curricular and pedagogical reform. *Journal of Curriculum Studies*.

Lundgren, U. P. (1983). *Between hope and happening: Text and context in curriculum*. Geelong, Australia: Deakin University.

McEneaney, E. H., & Meyer, J. W. (2000). The content of the curriculum: An institutionalist perspective. In M. T. Hallinan (Ed.), *Handbook of the sociology of education* (pp. 189–211). New York: Kluwer.

Spillane, J. (2004). *Standards deviation: How schools misunderstand educational policy*. Cambridge, MA: Harvard University Press.

Westbury, I., & Milburn, G. (2007). Introduction: Rethinking schooling—twenty-five years of the *Journal of Curriculum Studies*. In I. Westbury & G. Milburn (Eds.), *Rethinking schooling: Twenty-five years of the* Journal of Curriculum Studies (pp. 1–6). London: Routledge.

# SECTION A

## MAKING CURRICULUM
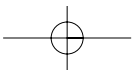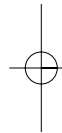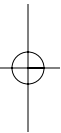
# 1

## CURRICULUM POLICY AND THE POLITICS OF WHAT SHOULD BE LEARNED IN SCHOOLS

BEN LEVIN

*Item: A plan to remove calculus from the Ontario Grade 12 mathematics curriculum draws protests from high-tech companies and university engineering departments despite support from university mathematics departments who understand that participation rates in advanced mathematics have been falling significantly and the proposed change would actually improve overall mathematics learning.*

*Item: The Ontario curriculum for Grades 1 to 8 contains more than 3700 specific and general expectations for teachers and students to cover. Assuming a 200-day school year, this is more than two curriculum goals every day for 8 years. Although these expectations are grouped under a much smaller number of key learning goals, teachers want the number of specific expectations reduced while other groups are lobbying to include new areas as essential objectives.*

*Item: The Ontario high school curriculum already has 270 possible courses even though students only have a maximum of 12 options during their 4 years of high school. However, there are constant requests for new courses, such as women's studies, Black history, environmental awareness, workplace safety, entrepreneurship, and a variety of others.*

The content of school curriculum has always been the subject of controversy and considerable public attention in countries we have studied. This chapter examines the political dynamics around the construction of official school curriculum—that is, curriculum developed by governments or other sanctioned authorities for standard use in schools across a state, province, or country. The first part of the chapter provides a context for the discussion by describing the scope and nature of political discussion and decision making in government. The chapter then uses a framework based on the work of Young, Levin, and Wallin (2007) to examine the factors and processes that affect curriculum decisions. Examples drawn from the author's experience and the literature are used to illustrate these dynamics. The chapter concludes with an extended example.

In this chapter, curriculum is defined as an official statement of what students are expected to know and be able to do. The informal or unofficial curriculum, despite its importance, is not discussed in this chapter. Nor does the chapter discuss issues of how local jurisdictions use policy to inform classroom instruction (what is actually taught), how and what teachers teach, or what students learn as a result. These are very important issues that are discussed elsewhere in this handbook. Because many curriculum questions are as much about teaching practice as about curriculum documents, debates over appropriate teaching methods are an essential part of the politics of curriculum and so are also part of the discussion in this chapter.

## UNDERSTANDING PUBLIC POLICY AND POLITICS

This chapter is primarily about politics, but politics in relation to public policy. There are many, many definitions of both terms—public policy and politics. Public policy is about the rules and procedures governing public sector activity—what they are and how they are made. It can be thought of as either a subset of the study of government or an element in the study of various policy fields—health, education, justice, social welfare, transportation, and so on. Policy studies tend to focus on the processes through which policies are created and the effects of such policies once in place.

Policies govern just about every aspect of education—what schooling is provided, how, to whom, in what form, by whom, with what resources, and so on. The application of these terms to curriculum is evident. Curriculum concerns what is taught—a fundamental aspect of schooling and thus of public policy.

Policy studies sometimes give short shrift to questions of politics, treating policy creation and evaluation as an intellectual activity based primarily if not solely on the actual content of the policies. In reality, though, policy is inextricably connected to politics and the attempt to separate them is unhelpful to understanding or action.

The role of politics in policy is troubling and misunderstood by many educators, who feel that education is a matter of expertise and should be beyond politics. The apolitical or even antipolitical view of many educators is not helpful because it takes attention away from the reality that politics is the primary process through which public policy decisions are made. Even the choice to use a supposedly nonpolitical mechanism such as markets is a political choice (Plank & Boyd, 1994).

Some definitions of politics focus on formal processes of government, such as elections, political parties, and division of powers. Other definitions, closer to my understanding, are broader, seeing politics as extending beyond formal processes to include a wide range of informal influences and larger social processes. Political processes operate even in the most authoritarian societies, though their forms differ depending on political culture and institutions. One of the most enduring definitions of politics is Lasswell's (1958), "Who gets what?" This definition can be applied to every setting, from a country to a school or classroom.

Politics is about power. Since not all can have what they want, the question is who does get what they want and who does not. Tinder (1991) describes a political system as "a set of arrangements by which some people dominate others" (p. 162). In every setting, from classroom to country, political influence is usually highly unequal, and those who have the least status tend also to have the least influence on political decision making.

Every education policy decision can be seen as being, in some sense, a political decision. However, this does not mean that every educational issue will be the subject of intense public discussion and political lobbying. Indeed, most policy decisions in education, including curriculum decisions, are made with little or no public attention. Sometimes these decisions are controversial and highly political within the organization itself. A subfield of education politics, micropolitics, developed to examine some of these small scale political interactions (e.g., Ball, 1987; Hoyle, 1982). But whether controversial or not, education policy decisions, because they involve questions of public choice and concern, are essentially political in nature (Manzer, 1994).

A substantial body of research and scholarship in education addresses issues of policy formation and implementation from a variety of conceptual positions. Examples of these different perspectives can be found in handbooks or collections such as Hargreaves, Lieberman,

Fullan, and Hopkins (1998) and Bascia, Cumming, Datnow, Leithwood, and Livingstone (2005). The education policy literature could be strengthened if it were better linked to the larger literature on public policy and politics, although the latter has more sophisticated frameworks and modes of analysis (for an overview of this work see Howlett & Ramesh, 2003; for a particularly insightful discussion see Dror, 1986).

Most frameworks for understanding politics and policy formation address similar topics. Central features of any analysis include the institutional setting and structure around decisions (e.g., Crowson, Boyd, & Mawhinney, 1996), how issues come to be on the political agenda (e.g., Kingdon, 1994), and the processes through which decisions are made in the face of different points of view (e.g., Ball, 1990). Attention may also be given to the process of implementation—what happens to policies after their official adoption. Implementation became a more intensive focus of attention starting in the late 1960s as analysts began to realize that policies did not always produce the intended results (e.g., McLaughlin, 1987; Wildavsky, 1979). In one comparative study of education reform politics, Levin (2001) used a typology of origins (where policy comes from), adoption (from an idea to a decision), implementation, and outcomes (results, intended or not, of decisions). However any such categorical system is only a device, since in practice political processes are highly interactive. The discussion in this paper uses a heuristic framework drawn from Young et al. (2007), who propose analyzing political decisions in terms of five overlapping categories: issues, actors, processes, influences, and results.

## How Government Works:
## An Inside Perspective

Curriculum politics should be understood as part of the overall process of government and especially the influence of politics. The dynamics of government are not well understood by most people outside of government—for that matter, also by many people who work in government—and many of the scholarly discussions of policy and politics do not reflect the realities of government to any substantial degree. The first part of this chapter describes some of these features as a prelude to a discussion of curriculum politics and policy.

I have spent half my career as a senior official in government, working closely with politicians and political staff as well as civil servants to develop and implement education policy agendas. My research and academic work—the other half of my career—have also given me the opportunity to work closely with political leaders and senior officials and to observe political decision making in several other countries.

Contrary to conventional wisdom, politics in my experience is an intensely rational activity. However, the premises behind political rationality are different. Politicians are no more self-serving or indifferent to evidence than are educators or civil servants. Understanding the politics of curriculum requires an understanding of the factors that affect elected governments and especially the powerful constraints that limit both understanding of what to do and capacity to act.

These dynamics are illustrated through the following six general assertions; their implications for curriculum politics are developed later. In my view these dynamics apply to all elected governments, even though political structures, cultures, and practices can differ substantially across jurisdictions. For example, the United States system of checks and balances has different features than do parliamentary systems such as the United Kingdom, Australia, or Canada. Politics may look different in decentralized or federal states than in unitary states. But whatever the form, elected governments are subject to pressures and constraints based on voter preferences, election timing, and the views of key interest groups. In other settings, where elections do not exist or are not particularly meaningful, political dynamics might look quite different. However, as illustrated by the overthrow of totalitarian regimes in various countries in the last couple of decades, every government has to pay some attention to the views of elites of various kinds, even if not to citizens more generally.

### Voter Interests Drive Everything

Everything in government occurs in the shadow of elections. Although stakeholder views do matter, as will be discussed later, government understanding of the views of voters in general matter much more. Every government is thinking all the time about how to improve its prospects for being reelected, which means trying to do what voters want. Some people find this

cynical, but it is hard to see what else politicians could do. After all, concern for reelection is largely about doing what most people want, and presumably people elect governments for precisely that purpose. A government that does not satisfy enough people will be tossed out of office. It seems unlikely that voters would like governments better if the latter had the so-called courage to do what is unpopular. From the viewpoint of those elected, doing the unpopular is precisely how a government gets defeated in the next election. The British cabinet minister in the wonderful British TV series *Yes Minister* always reacted with dismay when his chief civil servant, Sir Humphrey, called for taking a courageous stand, since this inevitably meant doing something that would get him into serious trouble.

Voters exercise a double standard around government. When individuals want a government to do something that may not be very popular, people talk about governments needing to have political will. However when a government does something people do not like, whether popular or not, it tends to get labelled as ideology rather than political will.

Governments do attempt to shape as well as respond to public opinion. Sometimes they want to give the perception of action even when they are not doing much, and sometimes they want to give the perception that changes are less significant than they really are so as to reduce opposition. Rhetoric is a vital part of politics (Edelman, 1988; Levin & Young, 2000), and government statements of intention or announcements of action cannot always be taken at face value. They have to be read through the lens of political communication.

It is also important to remember that voters are not necessarily very interested in every public issue; and even if voters are interested, they may not be knowledgeable. There are too many public issues for even the most committed citizens to know about beyond the most superficial level. People have lives to carry on, and public affairs are inevitably only one part—and for many, not a very large part—of those lives. This means that citizen knowledge of and attention to issues can be very limited. Hence, there is pressure on politicians to communicate in very simple messages. As one political leader told me, "If I can't explain it in 25 words or less, people stop listening." At the same time, voters can care deeply and feel strongly about issues about which they know very little. For example, people may have strong views about something like global warming without having any significant knowledge. Education policy is particularly susceptible to this situation as pretty well everyone has some experience of schooling and therefore opinions about how it ought to work. Research in social psychology (Kiesler & Sproull, 1982) has shown that people are very susceptible to generalizing on the basis of a few rather unusual cases.

Still, it would be a mistake to believe that governments are about only image and impression. They are usually genuinely concerned about the results of their actions and policies. They do believe that their policy goals will make society better. They do want to fulfill their commitments to voters, and programs and policies are the means of doing so. They do not set out to make a mess of things any more than schools set out to have high numbers of dropouts or unhappy parents. Moreover, a mistaken policy can create very large political costs. Voters do tend to toss out of office governments whose performance is disappointing—as virtually all eventually are.

### Governments Have Limited Control Over the Policy Agenda

Although every government comes to office with a set of policy ideals or commitments, the reality is that much of what governments attend to is not of their own design or preference. Governments have to be in whatever businesses (the plural is deliberate here) people see as important.

Governments try to do everything all at once because that is what citizens and voters require of them. The presence of diverse and conflicting goals means that governments are pulled, often strongly, in different directions at the same time. Policies may be contradictory or incoherent as governments try to maintain political credibility and social harmony by softening the edges of what they do or by giving a little bit to many different and even competing agendas. In these circumstances, clarity of purpose is not necessarily a virtue in that it can exacerbate divisions that cannot easily be reconciled.

Government agendas are certainly shaped in part by political commitments, party platforms, and the views of key political leaders. Governments do try to keep a focus on meeting the

commitments they made when elected. However, they are also influenced, often to a much greater extent, by external political pressures, changing circumstances, unexpected events, and crises.

As soon as a government is elected, various groups try to influence its agenda in accord with their own. This is in many ways the essence of the political process. It means that politicians are constantly bombarded with requests or demands to do things, stop doing things, increase funding, decrease funding, pass legislation, repeal other legislation, and so on. As populations have become better educated and better organized, the number and intensity of the pressures on politicians has risen.

Nor are people necessarily reasonable or consistent in their demands; as Arrow (1970) pointed out long ago, public preferences do not necessarily line up in rank order. The same people who demand more services from governments may also demand lower taxes. Those who in one year argued vehemently in favor of reduced government spending might the following year be just as impassioned when pointing out the negative consequences of the reductions. In regard to education, people can be in favor of more testing and more creativity or of tougher standards and more individualization at the same time. People can and do hold inconsistent beliefs, but political leaders must do their best to accommodate these inconsistencies in some way.

Unanticipated developments can also affect political agendas. When the unexpected happens, whether an economic downturn, a natural disaster, or some other new development, governments must respond in some way, even if that means taking attention and resources away from other activities that were high on the priority list. As Dror (1986) puts it, there is "at any given moment a high probability of low probability events occurring. In other words, surprise dominates" (p. 186). Examples of such surprises abound, from 9/11 to SARS, from a sudden rise (or fall) in oil prices to the unexpected death of a key political leader or a street revolution. Many events can render carefully developed plans null and void in an instant.

While some of the pressures on government relate to very important, long-term issues, short-term details can also be very important. One cannot assume that the former will always be more important than the latter. Very small items can turn into huge political events. In the private sector, 95% customer satisfaction is outstanding; in the public sector, 5% of clients complaining can lead to a political disaster. For example, a single instance of a problem—say a child in public care being abused or injured or a patient dying in a hospital waiting room—can undermine an entire system that may actually be working reasonably well and divert attention and resources from activities that are really much more important.

Governments are particularly susceptible to issues that take on public salience through the media (Levin, 2004a). Most people get their information about public events from the mass media; an issue that is played up in the media often becomes something that a government must respond to, even if the issue was no part of the government's policy or plan and even if the media report is inaccurate or misleading. Media coverage is itself motivated by a number of considerations, but long-term importance to public welfare is not necessarily one of them (Edelman, 1988, 2001; Neuman, Just, & Crigler, 1992). Indeed, novelty is an important requisite for the media in order to sustain reader or viewer interest, so governments are likely to be faced with an ever-changing array of issues all of which supposedly require immediate attention.

The significance of the media is also illustrated by the consistent finding that where people have first hand knowledge—such as of their own schools, hospitals, or child care centers—their satisfaction level is higher than for the system in general, where their prime source of information may come through often negative media coverage.

*There Is Never Enough Time*

Governments are in some sense responsible for everything. Government leaders have to make decisions about a vast array of issues—from highways to the environment, from financial policy to education, from health to justice systems. And, as just noted, they are likely to face an unending set of other pressures on their energy and attention. In parliamentary systems, cabinet members not only have responsibility for their own area of jurisdiction—which can be enormously complicated and fraught with difficulties—but are also supposed to participate in collective decision making on a wide variety of other matters facing the government. Each issue

has to be considered not only in terms of its substance, but also from the standpoint of public attitudes and political implications. The nature of political life is such that there is no respite from these demands. A politician may leave her or his office, but almost every social encounter will also lead to new pressures or requests. Politicians have little opportunity for a private life.

There is, consequently, never enough time to think about issues in sufficient depth. The political world is a relentless parade of events, issues, and required decisions—few, if any of which, can be put off for sober reflection. Some sense of this pace is captured in the TV program *The West Wing,* except that the real situation is generally more messy even than this portrayal, with more simultaneous demands and pressures being handled. Senior government leaders, both politicians and civil servants, work under tremendous time pressures in which they are expected to make knowledgeable decisions about all the issues facing them within very short timelines and without major errors. This is impossible, but it is nonetheless what citizens expect from their leaders.

The result is that important decisions are often made very quickly with quite limited information and discussion. This is not because politicians necessarily like making hurried or uninformed decisions, but because there is no alternative to doing so. There is an unconfirmed story from a large country that illustrates this dynamic. The Minister of Education went to see the Prime Minister with two major policy proposals. The Prime Minister told the Minister of Education that he could have one only and could pick which one. That is how the country ended up with a very powerful policy change.

The pressure of multiple issues is also one of the reasons that policy implementation tends to get short shifted. As soon as one decision has been made there is enormous pressure to get on to the next issue. Even with the best intentions, it is hard to get back to something from months ago to see how it is progressing since meanwhile so many other issues have arrived on the doorstep demanding immediate attention.

During my time in government, I have often been amazed not by how many things went wrong, but by how many decisions turned out reasonably well, considering the circumstances—multiple contradictory pressures, insufficient time, inadequate knowledge—under which they were made.

### People and Systems Both Matter

Much of what a government does is shaped by the individuals who happen to occupy critical positions, regardless of their political stripe. Any political party is likely to contain a wide range of views and positions; in statistical terms, the within-group variance in ideas in a party is likely to be much larger than the variance between one party and another. So the individuals who come to hold certain positions are important. Presidents in republican systems are of course powerful examples; who the president is matters as much or more as his or her party affiliation. The same applies in parliamentary systems. Some ministers carry quite a bit of weight in Cabinet and can get their way on important issues, while others have difficulty getting their colleagues to support any major policy thrust. Some politicians are quite pragmatic and willing to reshape policy in light of changing pressures or public preferences, while others are deeply committed to particular values and work hard to promote and implement a course of action over years even in the face of substantial opposition. Some Cabinet ministers or key political operatives understand and use research, while others may be ignorant or even dismissive. Some politicians are superb public communicators, while others are not.

The nature of government systems also matters. The roles of various departments and central agencies, the relative power of individual ministers vis-à-vis central government, the way in which issues come to decision-making bodies such as a Cabinet, and the kind of information that accompanies them are all important in shaping the way policies are constructed and delivered. Some governments stripped away much of their internal analytic capacity in the 1980s and 1990s as part of the effort to reduce spending, limiting their ability to design and implement effective policy. Similarly, more checks and balances in a system tend to make decisive action much more difficult—for better or worse. New Zealand in the late 1980s implemented very dramatic changes in overall public policy very rapidly because it had few such restraints (Boston, Martin, Pallot, & Walsh, 1996); a similar degree and rapidity of change in federal states

with divided powers such as in the United States, Canada, or Australia is hard to imagine.

### A Full-Time Opposition Changes Everything

Imagine how different any workplace or job would be if there were people whose full-time job it was to oppose publicly everything being done. Imagine also that they could use less than scrupulous means of doing so and that there was a tendency for people to believe their criticisms ahead of any other explanations. Might that not change the way people went about their work?

Yet that is precisely the situation facing every elected government. Oppositions are there to oppose. They will work hard to show how government actions are wrong, venal, or destructive. In doing so, they will not generally be particularly concerned with balance or fairness in their accounts. Governments have to think at all times about the worse possible construction that could be put on any action since just such a view will inevitably be put forward by the opposition.

While many people decry negativity in politics, politicians use this strategy not necessarily because they like it, but because they think it works. If voters believe negative portrayals and vote accordingly, then political parties will use them. If conflict is what attracts public attention, then conflict is what politicians will create since public attention is what they must have. A politician friend once told me that he got far more publicity and recognition from a certain public relations gesture that he knew was rather narrow than from any number of thoughtfully articulated policy papers, so the public relations gesture would continue. The problem is that over time an emphasis on the negative can certainly increase voter cynicism about politics and thus worsen our politics. Imagine what would happen to any other industry—say the auto industry—if the major players ran endless ads attacking each other on the basis of poor quality, shoddy business practices, or safety violations. Public confidence in the industry would be badly undermined. Yet that is in large part how political communications work today in some countries.

### Beliefs Are More Important Than Facts

Researchers are often convinced that policy ought to be driven by research findings and other empirical evidence. Educators may believe that education policy should be based on their knowledge and experience. From a political perspective, however, evidence and experience are not enough to drive decisions, and they may be among the less important factors. I have had politicians tell me on various occasions that while the evidence I was presenting for a particular policy might be correct, the policy was not what people believed, wanted, or would accept.

For politicians, what people believe to be true is much more important than what may actually be true. Beliefs drive political action and voting intentions much more than do facts. Witness the strength and depth of public support for various measures that clearly fly in the face of strong evidence. Many people continue to believe, in spite of compelling evidence, that capital punishment is a deterrent for crime or that welfare cheating is a big problem. Others are convinced that amalgamating units of government saves money, that free tuition would substantially increase accessibility to postsecondary education for the poor, or that retaining students in grades will improve achievement even though in all of these cases a strong body of evidence indicates otherwise. Where beliefs are very strongly held, political leaders challenge them at their peril. As Marcel Proust (1913/2004) put it,

> The facts of life do not penetrate to the sphere in which our beliefs are cherished . . . they can aim at them continual blows of contradiction and disproof without weakening them; and an avalanche of miseries and maladies coming, one after another, without interruption into the bosom of a family, will not make it lose faith in either the clemency of its God or the capacity of its physician. (p. 212)

## A FRAMEWORK FOR UNDERSTANDING CURRICULUM ISSUES

From this discussion of government and politics generally, the discussion now shifts to focus on curriculum decisions and politics. The discussion is organized in terms of the framework described earlier—issues, actors, processes, influences, and results—recognizing that these, like any other categorical framework, are intellectual

organizers only and that actual events do not fall into neat categories.

### Issues: Scope of the Politics of Curriculum

*Elements of Curriculum*

Most curricula are organized around at least two levels of objectives—very general or broad goals and then much more specific learning activities and objectives. Curriculum documents and policies may also endorse or support, explicitly or not, particular teaching and learning practices. These relationships have themselves been changing over time as a result of growing knowledge—for example, increasing awareness of the importance of teachers' assessment practices (Black & William, 1998).

Curriculum politics and policy choices are also increasingly related to larger issues of school change and improvement and to varying theories of what it is that shapes the outcomes of education. At one time there may have been a common sense assumption that curriculum was central to the enterprise, in that what was taught is what would be learned. Decades of experience with educational change have made it evident that the situation is much more complex. There is a substantial debate as to how important formal education as a whole is in shaping student outcomes, with some arguing that socioeconomic status and other nonschool factors are by far the most important influences on outcomes while others believe that what happens in schools can play an important role (Levin, 2004b).

As governments have attempted to support large-scale educational change (Fullan, 2000), curriculum has become less an activity in its own right and more one element in a more comprehensive approach to education change. In many jurisdictions with centralized curriculum, review and renewal processes have been altered to be more consistent with wider education programs. In other settings curriculum has been a prime vehicle for realizing wider change (e.g., Luke, 2004). The United States is a particularly interesting case in that there is a national education reform strategy—No Child Left Behind (NCLB)—that is based largely on demanding curriculum standards, yet curriculum is controlled mainly at the district or even school level, creating some substantial disjointedness. The implicit theory of action in NCLB is that accountability requirements can be the primary drivers of improved educational practices and of improved results, a belief that is extraordinarily contentious and has prompted an enormous political debate in the United States.

The politics of curriculum can be thought of as involving two kinds of discussions. The first concerns the overall shape of school curricula: what subjects will be included (or excluded), how much of each, and at what stage of students' education. Examples would include debates over whether literacy or mathematics are getting a sufficient share of the school day and school year, whether sex education or religion should be part of the curriculum, when students should first study a foreign language, or the degree to which they should be required to study music or physical education.

The second kind of debate is over the content of particular subjects. People will disagree over what should be included in each subject and what should be included at various age levels for students. Should spelling be taught explicitly? If so, when? How much of their own country's history and geography should students learn as opposed to that of other countries? Should all students learn algebra? Should all students—or any—be required to study Shakespeare? These debates take place not only in the most obvious areas, such as what is taught in history or studied in literature and at what age, but also in areas that might be thought to be more objective, such as science or mathematics. For example, should global warming be a part of science curriculum?

In addition to the content of specific subjects, schools are seen as the place where children will be inoculated against all social ills or taught all the virtues from street proofing to AIDS, anti-smoking, drinking, and drug abuse education. Schools are expected to prevent bullying, obesity, and anorexia while also eliminating racism and promoting equity in all its forms. In many cases these topics cut across the formal school curriculum, so who provides what instruction and when can be an important curriculum issue.

Some of these discussions are a matter of pragmatics. There simply are not enough hours and days in 12 years of schooling to accommodate all the areas people want children to develop. A Canadian public opinion poll a few years ago found that people wanted more of every subject in the school curriculum, but did not want a longer school day or year (COMPAS,

2001). So debates take place about the relative importance of science or economics or the arts or physical activity in the competition for scarce school time. These discussions can be intense in part because they are often led by people with a strong personal interest in the decision.

A second set of arguments, often much more vitriolic, occur when curriculum debates occur due to disagreements on important value questions. Because schooling is seen as so fundamental to the development of our children, it can turn into a battleground for wider social disputes. Thus people will disagree about whether particular content should be part of school curriculum at all. Sex education is one obvious example, but significant philosophical or value disagreements are also expressed in many other areas. There can be deep-seated arguments about the content of history and literature curricula, such as how much attention in these subjects should be given to minority groups or to dissidence. People's fundamental ideas about their country get expressed in disputes over the role of first languages for immigrant students or around curriculum about various forms of diversity and human rights. Any issue that is politically contentious can also turn into a curriculum dispute. Recent debates in the United States and elsewhere about evolution provide another example in which differences in religious beliefs get expressed in curriculum policy disputes. Even in fields such as literacy and numeracy there are in some places bitter disputes, such as the reading wars and math wars. These debates are sharper because they embody deeply held views not only about the nature of education but about essential life values.

As mentioned, an important element of the politics around education is that everyone has gone to school, so just about everyone has a feeling of being knowledgeable and a personal response to educational issues. The same would not be true of health care or environmental policy or energy policy. People's own school experience, whether primarily positive or negative, deeply affects their views about education policy. One important result of the universal experience of schooling is that adults, like children, tend to see curriculum as a collection of subjects and topics without necessarily requiring coherence or integration across the curriculum.

Another significant feature of curriculum politics is that in many cases questions of content cannot be separated from teaching practice.

Many of the most heated issues in curriculum—for example, whole language or constructivist mathematics—are as much about teaching methods as they are about curriculum content. On the other hand, there are occasions when the whole concern is about the content of curriculum documents with little attention to pedagogy. For example, debates about whether particular topics should be included in history curriculum or certain books in literature courses may be entirely about what appears in the official document; what teachers do if and when they teach the content may be of little concern in the political arena.

These comments on the scope of curriculum politics reinforce the claims earlier in the chapter about the multiple influences on political debate and decisions. Some of the issues around curriculum are largely symbolic, while others may be deeply connected to the fundamental purposes and activities of schooling. Politicians and governments must try to deal with all these competing demands in a way that appears to reflect at least a modicum of coherence and concern for the longer-term welfare of education.

### Actors—Who Is Involved?

Curriculum politics involve a wide range of participants. An important first question is where the authority over curriculum rests. Education governance typically involves some combination of national, local, and school participation; and in federal systems, education governance will have a fourth (and often primary) level at the state or province. The division of powers and responsibilities across these levels is quite variable from one country to another. In most jurisdictions, final authority over curriculum rests with national or subnational governments. In many federal systems it is provinces or states that control curriculum. In a few situations curriculum authority is largely located within individual schools.

The central role of governments inevitably brings into play a range of both political and bureaucratic elements. Although a cabinet usually has a single person charged with responsibility for education, many other political leaders may also have views; and if curriculum decisions go through a political vetting process, they may be subject to all sorts of political influences including preferences of individuals. An individual in a key position can either shape or hold up decisions if

determined enough. For example, a powerful cabinet member or political advisor may be able to insist that a particular element be added to or dropped from a proposed curriculum.

A second important element of governance structure is the institutional role of elected lay persons as against civil servants or experts. Countries vary significantly in how much authority lay people have in shaping education policy—vehicles range from elected ministers to local school authorities to school councils or governing bodies involving parents and others. Each of these forms will bring different dynamics to curriculum politics. Depending on national governance arrangements, schools or districts have varying degrees of control—from almost none to quite substantial—over the formal curriculum.

Whatever the formal control system is, in almost all settings, schools have some influence if only through the choice they are able to make as to which courses and programs are actually provided and the amount of attention that is given in the day to day life of the schools to particular subjects or topics. High schools, for example, have to choose which optional courses to offer. Elementary teachers and schools typically make important decisions about curriculum emphasis, especially where—as is often the case—the formal curriculum has more elements to it than can be taken up in most classrooms. Schools or districts also often decide on the areas of the curriculum that will be the subject of professional development.

The main education stakeholder groups—teachers, principals, senior administrators, and elected local authorities where they exist—are almost always involved in curriculum reviews and decisions. Subject matter experts from schools and universities typically play a central role in the curriculum formation and review process and may also be very involved in public debates. Indeed, a central dilemma in curriculum formation is the balance between subject matter expertise and larger perspectives on the role of a given topic in the overall school program. Not surprisingly, those associated with each subject or topic will advance its importance—which, it must be pointed out, is often linked with their own employment prospects and importance. Of course scientists or music teachers or tradespersons also genuinely believe that their field is important for students, but one cannot ignore the role of self-interest in these debates.

Postsecondary institutions often have a powerful influence on school curriculum, especially in secondary schools, through the setting of entrance requirements to their institutions. Since secondary schools often see themselves—and are widely seen by students and parents—as preparing students for further study, the schools may find themselves quite constrained by requirements set by tertiary institutions. On the other hand, views about school curriculum expressed by the tertiary sector may not be particularly well grounded in evidence but may rest on the beliefs of individuals holding key roles. It is particularly the case that experts tend to believe that all students need more of their subject and at a higher level.

Since, as noted earlier, schools are widely seen as playing a central role in the socialization of children and young people, a wide range of interest groups may be involved in curriculum politics depending on the issue. For example, business groups often have strong views about various aspects of secondary curriculum—as illustrated in the example later of calculus in Ontario. Various industries will try to promote subjects and programs that support their labor market needs. Within government, other departments may put pressure on the education ministry for their favorite causes—such as innovation units promoting the use of technology or culture ministries promoting the arts.

In the wider society, many groups want the curriculum to reflect particular issues and perspectives—for example, the desire to include the language, history, and literature of various minorities and indigenous peoples or the ongoing debate about the role of the arts, or views on the place of foreign languages, or education for entrepreneurship, or the pressure to embody religious views in school curricula. As will be discussed in the next section, curriculum processes do not necessarily provide very much direct opportunity for input from various interests. As usual in political processes, those bodies that are better organized and financed or whose concerns are more deeply felt will tend to be much more active and may have disproportionate influence.

Curriculum can also be influenced significantly by other policies. Student assessment policies in education may shape curriculum decisions, especially where assessment policies are not linked to curriculum. In all settings assessment practices can be important drivers of

what is actually taught. Where assessment is carefully linked to curriculum, this may not be a problem. However where assessment is disconnected from curriculum, the implications may be problematic. The requirement for high standards measured by tests and school ratings in NCLB in the United States are affecting teaching practices. That effect will only be positive if schools and teachers understand the standards and if the tests are carefully aligned to appropriate curricula and teaching methods—conditions that are very hard to achieve in a highly decentralized education system.

### Processes—How Are Curriculum Policy Decisions Made?

Curriculum decision processes depend on governance systems discussed earlier. Jurisdictions normally have well-developed formal processes for creating and revising curricula. Typically these processes involve bringing together groups of experts and sector representatives to draft the elements of a new or revised curriculum. Teachers of the subject will often be in the majority, with representation from postsecondary subject experts as well. The processes are often organized and to some degree directed by government officials from ministries of education. Typically a curriculum review or renewal process would include examining the existing curriculum, gathering data as to the strengths and weaknesses of current arrangements, considering various ideas for changes, and trying to arrive at consensus on recommendations for the new curriculum. Sometimes a new curriculum will be created and released to the system, while in other cases it may be released initially on a pilot basis and then revised to a final version. Altogether curriculum processes can be quite extensive, sometimes taking several years from start to completion. However, if substantial authority is vested at the level of the local school, curriculum development or renewal is likely to be much more informal and ad hoc, as no school will have the resources or capacity to undertake these larger processes.

Expertise in a subject area—and even expertise in teaching the subject—does not necessarily equate to expertise in constructing a curriculum. By definition experts know more and care more about their subject than will most teachers. The danger in an expert-dominated curriculum development process is that the product will be something that can be used effectively only by people with high levels of expertise, but the reality of almost all schools everywhere is that most teachers of a subject, especially in elementary schools, will have only a limited background in that subject. One danger in curriculum development then is the production of curricula that are not readily usable by ordinary teachers. A colleague once described a high school mathematics curriculum as, "It was developed by the six best teachers in [the province] and they are about the only ones who could teach it successfully." Interest groups can and do promote ever-higher standards for their subject and then use those standards to argue for more time in the school schedule as well as for more teachers, higher qualifications, and more resources.

This example illustrates the importance of views about the relationship between the formal curriculum and real teaching and learning practices in schools. The gap between the two has been well known at least since the time of John Dewey. Many curriculum experts agree that formal curricula may have only a vague relationship to actual teaching and learning practices (e.g., Cohen & Spillane, 1992). Various efforts have been made in the last few decades to produce curriculum in ways that would have a greater impact on students' real experiences. These efforts range from so-called teacher-proof curricula, in which teaching practice is built into the curriculum at a high level of specificity, to attempts to connect new curricula with professional development so as to change teachers' practices. However given the nature of schooling and teaching, with very large numbers of teachers of quite varied backgrounds in highly varied contexts and with considerable autonomy in their daily practice, central attempts to circumvent these limitations are unlikely to be successful. More is said later on the issue of implementation of curriculum.

The expert-dominated approach to curriculum development is changing as experts no longer have quite the same political legitimacy they once did. An increasingly better educated and more vociferous public is demanding greater input in all areas of public policy. Governments are therefore moving away in many areas of policy development from reliance on experts in favor of greater involvement of average citizens. Governments (and indeed nongovernmental organizations) are much more inclined today to

use various forms of open consultation and opinion gathering as part of policy formation. In curriculum policy this trend can be seen in the increasing degree of nonexpert participation. Curriculum review parties are now more likely to include parents or students or non-educators such as business representatives. As discussed in the next section, these changes in composition can have significant implications for the ways in which curriculum processes unfold because they will bring different and more diverse interests to the table.

Curriculum review groups do not do their work in a vacuum. Sometimes these processes proceed relatively smoothly, but they can also be highly contentious. Where important disagreements exist about curriculum there may be intense lobbying by various interests as to who should be named to a working group. Although these processes are not often documented, some interesting accounts do exist of the politics of curriculum review. For example, Evans and Penney (1995) provide an analysis of discussion in England about the physical education curriculum, outlining the debates that occurred within a curriculum committee. More such accounts would be valuable in understanding these processes more fully.

A further consequence of expert input is the clash between experts with competing views—for example, those who favor new pedagogic approaches versus advocates of traditional content organization and teaching. Mathematics is a good example, pitting advocates of the National Council of Teachers of Mathematics (NCTM) standards or their equivalent against advocates for traditional approaches to mathematics. The clash of expertise is often a subject of media interest as well, with each side in a dispute seeking to marshal experts to support its position.

Curriculum formation may also be linked to much more public political processes. Public debates around curriculum issues can occur simultaneously with official processes—as, for example, when public interest groups are aware of and try to influence the outcomes of the official process by lobbying for particular changes. Or public debate and concern can lead to an official process as the system tries to respond to public concerns, as is evident in debates about issues such as global warming or the place of indigenous peoples. Or debate can erupt

following a formal proposal as various interests mobilize to change a recommendation they do not support, as in the case at the end of this chapter.

### Influences—What Shapes Decisions?

The earlier part of this chapter outlined the range of factors that influence government decisions in general, from ideology to lobbying to personal beliefs to media attention. The same influences will apply to curriculum decisions. One essential tension in curriculum decisions, as already noted, is between expert opinion and concerns of key interests or of the general public. Political leadership will take account of expert opinion, but will inevitably take much more interest in public opinion and particularly the views of opinion leaders in key sectors or constituencies.

Even where the curriculum process is dominated by experts there may be substantial disagreement on what to do. Teachers may see curriculum issues quite differently from postsecondary disciplinary experts. The latter may focus on the need for high level skills in their own area, whereas teachers may be more concerned with a curriculum that will work for students with widely varying skills and interests. Advocates may want more topics at higher levels, whereas classroom teachers may push for exactly the opposite. In some fields, teachers of the subject are themselves deeply divided on key curriculum and teaching questions—for example, in their views about integrated versus subject specific curricula or in their views on the importance of learning names and dates in history. Teachers also have varying opinions on issues such as the relevance of fields, such as gender studies as opposed to more traditional disciplinary boundaries, or on the value of project work.

A stark example of the level of disagreement that can arise over curriculum issues is the debate in the United States over the best ways to teach reading. The National Reading Panel report in 2000 made a set of recommendations around literacy instruction that immediately became highly contentious. In a vigorous and often acrimonious public debate (e.g., Allington, 2002; Coles, 2003; Schoenfeld, 2006), various participants not only proposed quite different approaches, but also in many cases attacked each

other's understanding of the evidence and sometimes raised issues of personal integrity.

### The Role of Research

Research has increasing importance in influencing education policy as a more educated population is more inclined to want evidence about public policy issues. This growing interest is evident in many areas of public policy, such as health or environment or energy, where claims grounded in research form an important part of public debate. My strong impression is that education policy debates make more use of empirical evidence than ever before. The growth of various research networks in and across countries as well as the creation of new vehicles for sharing and disseminating research are indicators of this shift (Levin, in press). In school practice too there is growing interest in the use of evidence to guide decisions about teaching and learning practices (e.g., Bernhardt, 2003; Marzano, 2003).

The interest in research does not, however, mean that there will now be a direct link between research results and policy choices; the latter will always remain the result of political processes, and research will play a role in and through broader social and political processes (Levin, 2002, 2005). The commitment to evidence is shown in that all sides in the political debate, even those whose theoretical stance is to see evidence as being largely the handmaiden of political ideology, do attempt to bring evidence to bear whenever possible and do use it to legitimate and support their own theoretical positions. Clearly research is used to bolster predetermined positions, but any careful thought will show that empirical evidence can also shape and change public and professional views on important questions. One needs only to think of examples such as retention in grade, tracking in secondary schools, or the impact of socioeconomic status on school outcomes to see how our ideas about schooling have been influenced by research. To say that these ideas have not transformed practice does not negate their significance any more than the fact that many people still smoke should be taken to mean that the research on the effects of smoking has had no impact.

There are important barriers to the use of research in curriculum policy. Most importantly, in many areas of curriculum—probably in most areas—there is not enough knowledge to guide policy or practice sufficiently; and quite often, existing knowledge is not available in a form that speaks effectively to the real problems and issues of policy and practice. However, even where there is a substantial body of knowledge, research evidence will not trump political pressures. Instead, it may play an important role in creating or legitimating such pressures.

The role of research is especially difficult where the research evidence is equivocal or is presented by partisans as being equivocal. When contradictory research findings are the subject of public debate, as has been the case in areas such as reading and mathematics teaching, citizens are likely to be confused and to revert to their fundamental beliefs whether supported by evidence or not. Given the growing significance of research, advocates for various positions are increasingly likely to try to draw on research to support their positions.

An interesting question is the degree to which curriculum review is actually informed by data and evidence. Curriculum review will generally take account of emerging knowledge in the field under discussion precisely because the process has so much expert participation. More recently, in keeping with a general trend in education toward using student assessment data, curriculum review may include data on student outcomes, both for the curriculum overall and for particular groups of schools or students. However, regular use of student outcome data to guide education policy is still not standard practice everywhere. Nor do curriculum working groups necessarily pay careful attention to research as part of the work. Even expert processes are susceptible to a preference for interest bargaining instead of evidence.

Edelman's (1988) concept of "condensation symbols" is a useful tool in thinking about curriculum politics. Edelman argues that even relatively small instances become highly symbolic as they seem to embody, or condense, a range of beliefs and values in a particular case. The example below of calculus in the Ontario curriculum provides a good illustration of this idea. It is possible to think of many others. For example, a columnist writes an article pointing out that Canadian students cannot name most of the country's prime ministers, a point which gets translated into a signal of all that some people find wrong with contemporary education, such

as its supposed focus on learning process without content or its embracing of multiple instead of traditional values. As noted in the earlier part of the chapter, even small incidents can turn into significant political issues if they press the right buttons for enough people.

*Results*

It has been at least 20 years since it became evident that there is a large gap between producing a curriculum and the experience of students in the classroom. A substantial body of research (e.g., Cohen, Raudenbush, & Ball, 2003; Wilson, Peterson, Ball, & Cohen, 1996) shows how far classroom practice can be from new curricula and how little impact a change in curriculum can have on teaching practice. The more significant the proposed change, the more likely it is to have limited adoption. Working practices of teachers are shaped primarily by day to day realities of their workplace, their habits, and their views about what is practical. Insofar as curriculum changes do not pay attention to these realities they further limit their chances of having an effect.

Research has helped develop understanding of the factors that do shape implementation. Fullan's (1991) work has been particularly important and influential. However, these considerations may still not be well integrated into formal curriculum processes, as it is still common to find accounts of some new program that was carefully developed only to fall far short in the implementation stage. As this chapter has illustrated, issues of implementation and results are often marginal to the entire curriculum process.

## A Case Example: Calculus as a Condensation Symbol

The patterns described in this chapter can be illustrated by an example drawn from my own experience.

For many years the province of Ontario had 5 years of high school while almost all other Canadian provinces, like United States, had 4 years. Although at one time the 5th year had been primarily for a relatively small number of university-bound students, over time Grade 13

became a normal part of the high school system for most students. The elimination of this extra year had been proposed several times, but it was only in the 1990s that the Ontario government finally moved to a 4 year high school system consistent with other Canadian provinces and United States. Over a period of 6 or 7 years, the entire high school program was reshaped, including new curricula in every subject. Toward the end of the process, when many of the key curriculum decisions were being made, the government of the time had a focus on high standards, so for some subjects, including mathematics, most of what had been in the 5 year high school curriculum was compressed into 4 years. The changes in the high school program and curriculum were also being made at the same time as many other controversial changes, so the whole atmosphere in education in the late 1990s was highly conflictual; teachers were quite unhappy with the state of things, which spilled over into their views about curriculum.

The former 5 year mathematics curriculum had provided substantial opportunity for students to take advanced level courses in specialized areas such as calculus. The new curriculum for the 4 year program did not provide the same opportunity. As a result of pressure from some university departments such as engineering and physics and from some employers as well as some passionate and vocal teachers, calculus continued to be included, but it became part of a larger advanced mathematics course in Grade 12. The debate over the role of calculus was loud, public, and often framed as lowering standards in mathematics, a criticism to which the government was highly sensitive.

Shortly after the new high school curriculum was in place, the Ministry of Education began to review the various components as part of a regular curriculum review cycle. In 2003, high school mathematics was reviewed using a new process with wider participation. The review committee was made up of Ministry staff, including mathematics experts, working with various partners including teachers and post-secondary math experts. Ministry curriculum committees do not, however, typically include community or employer representatives.

One of the many issues in front of this committee was a concern about calculus. Enrollment in advanced mathematics courses was dropping steadily because students found them very hard

due to so many topics in a limited time. At the same time, university mathematics departments were expressing concern in that the time allowed for calculus in the new course was not sufficient and resulted in students being inadequately prepared. The consensus of the university mathematics departments was that they would prefer to do their own teaching of calculus.

Late in 2004, the curriculum review group recommended, based on all its discussions and consultations, the elimination of calculus from the Grade 12 mathematics curriculum and the reorganization of the advanced mathematics courses.

Before finalizing these recommendations for presentation to senior managers and the Minister, the Curriculum Branch sought feedback on their proposals. Very quickly a public uproar began. The primary impetus for the concern came from three sources—high school teachers of calculus, university faculty in engineering and physics, and some well-known leaders of high tech industries. Several prominent people wrote letters to newspapers expressing great concern, while many others also expressed contrary views in public. Examples of these concerns include the following:

**Head of UW [University of Waterloo] Slams Math Plan**

Ontario's high school graduates are already slipping in their math abilities—and the government's decision to drop calculus from the high school curriculum puts these students in even more peril says the president of the University of Waterloo.

David Johnson has written Education Minister Gerrard Kennedy, warning of the university's "great concern" if calculus is dropped from math courses next year, as Is planned.

*The Record,* 2005, December 23

**When It Comes to Calculus, An Artificial Tree Is Preferred**

. . . But while university math types are in favour [*sic*] of taking calculus out of high schools, [a local professor] acknowledged engineering schools aren't.

The engineering schools expect first-year students to come in with a grasp of certain calculus concepts, he said, and they are not set up to make the required teaching adjustments as easily as math departments are.

Perhaps feeling the heat over the dumbing-down charges, a spokeswoman for education minister Gerard Kennedy said this week nothing had been finalized and only certain sections of high school calculus were being removed from the curriculum.

*The Standard,* 2005, December 23

**Scrapping Calculus Course Opposed: It's Crucial for Science . . .**

. . . [The] chair of University of Western Ontario's math department wants the government to offer an optional course with a significant portion of calculus so strong students can be enriched. It "enables them to come to university with a reasonable sense of what it's about," [he] said. His department teaches first-year calculus to a broad range of students from science and social science programs.

*The Observer* (Sarnia), 2006, February 23

It was clear almost immediately that this was not an argument the government or Ministry could win, even though the proposals made by the review were logical and could well be in the best interests of students' mathematics skills. Although only a very small proportion of the adult population ever studied calculus, and even fewer use it in their daily lives, it became clear that calculus was symbolic of advanced skills and global competitiveness in the Ontario economy. People might not want to learn calculus themselves, but many apparently regard it as essential for their children. At the same time, the status quo ante was untenable in light of dropping enrollments and unsatisfactory outcomes.

The Minister decided to convene a new process to look at the calculus issue. The government's education platform had included a commitment to create a new Curriculum Council made up of parents, students, and employers as well as educators as a way of managing some of the tensions

in curriculum described earlier in this chapter. Due to pressure of other commitments, this promise had not yet been acted on when the calculus debate erupted early in 2005. The Minister saw the calculus debate as an opportunity to test the ideas behind the Curriculum Council.

He therefore announced a new review group. This process would be more sensitive to the various public views than was the original, expert-dominated process. The Ministry put together a small team to review the status of calculus. Unlike Ontario's standard curriculum reviews, which involve large teams and take a year or more, the calculus review team had only five members, was not dominated by people from the school system, had a very specific mandate, and had a short timeline. It was led by a highly respected mathematics professor who was also deeply involved in the applications of mathematics in industry. The group included a senior executive of a high tech company, an educator, a high school student, and a parent, so it was heavily weighted with nonexperts. The group was asked to look at the recommendations of the review team, but also to consult with employers and others so as to assess based on economic realities the appropriate role for calculus. The Ministry was asked to prepare an analysis of the uses of mathematics in the Ontario labor force so that we could have reasonable evidence on real requirements rather than supposition. Because of the need to have decisions in time to shape student course choices for the following year, the group was given a very short timeline for its work.

This process unfolded reasonably well especially given its rather ad hoc nature and short timeline. The team met with a variety of interested parties, looked at the evidence on course-taking patterns, and wrote a report with a series of recommendations, all of which were accepted by the government. They found a useful compromise that would preserve calculus without reverting to the prior set of course offerings that were clearly not working well. The acceptance of their report also ended the public debate.

At the same time, the process revealed some challenges for further development of this alternative approach. One intention of the task force had been to root the discussion more deeply in evidence on the place of advanced mathematics in the Ontario economy. How many workers used calculus and for what purposes? That would help root school curriculum choices in real information instead of mythology. It turned out to be very difficult to reorient the discussion in this way. From a political point of view, the established interest groups were highly vocal and largely uninterested in such evidence. A good example would be university business schools that may require calculus either for admission or as part of their own program of studies even though it is rarely used by actual managers in business. Industry groups, who might have been able to exert some influence over the debate, were largely uninterested and unwilling to take the time either to provide evidence or to participate in discussions. The working group itself had a hard time keeping its attention on economic evidence as well since it was subject to the same pressures to manage demands from interest groups and since, not surprisingly and especially given its short timeline, it began looking very early on for compromise solutions.

## CONCLUSION

Although curriculum is a fundamental part of the framework of schooling, curriculum decisions and choices are shaped in large measure by other considerations—ideology, personal values, issues in the public domain, and interests. Curriculum decisions are often part of a much larger public debate that often extends beyond education to larger questions of public goods.

These dynamics tend to be poorly understood by most educators, who tend to believe that education policy choices can and should be made on the basis of educational expertise. When processes are put in place without adequate regard for the real drivers of decisions, the likelihood of poor decisions—that is, decisions that fail to produce the intended results—increases. Political processes are driven by interests, and particularly by the most vocal interests. Finding ways to mediate interests through different processes and uses of evidence will remain a challenge, though one worth pursuing.

## REFERENCES

Allington, R. (2002). *Big Brother and the national reading curriculum: How ideology trumped evidence.* New York: Heineman.

Arrow, K. (1970). *Social choice and individual values* (2nd ed.). New Haven, CT: Yale University Press.

Ball, S. (1987). *The micro-politics of the school.* London: Methuen.

Ball. S. (1990). *Politics and policy making in education: Explorations in policy sociology.* London: Routledge.

Bascia, N., Cumming, A., Datnow, A., Leithwood, K., & Livingstone, D. (Eds.). (2005). *International handbook of educational policy.* Dordrecht, Netherlands: Springer.

Bernhardt, V. (2003). *Data analysis for continuous school improvement.* Larchmont, NY: Eye on Education.

Black, P., & William, D. (1998). Inside the black box. *Phi Delta Kappan, 80,* 39–148.

Boston, J., Martin, J., Pallot, J., & Walsh, P. (1996). *Public management: The New Zealand Model.* Auckland, New Zealand: Oxford University Press.

Cohen, D. K., & Spillane, J. P. (1992). Policy and practice: The relations between governance and instruction. In G. Grant (Ed.), *Review of research in education* (Vol. 18, pp. 3–49). Washington, DC: American Educational Research Association.

Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003). Resources, instruction, and research. *Educational Evaluation and Policy Analysis, 25,* 119–142.

Coles, G. (2003). *Reading the naked truth: Literacy, legislation and lie*s. Portsmouth, NH: Heinemann.

COMPAS. (2001). *The e*ducational experience: State of the nation. Q2, Public Opinion on Education. A COMPAS/National Post Poll with Supplementary Questions for Global Television [Electronic version]. Ottawa, Toronto, Canada: Author.

Crowson, R. L., Boyd, W. L., & Mawhinney, H. B. (1996). *The politics of education and the new institutionalism: Reinventing the American school.* London: Falmer.

Dror, Y. (1986). *Policy-making under adversity.* New Brunswick, NJ: Transaction Books.

Edelman, M. (1988). *Constructing the political spectacle.* Chicago: University of Chicago Press.

Edelman, M. (2001). *The politics of misinformation.* Cambridge, UK: Cambridge University Press.

Evans, J., & Penney, D. (1995). The politics of pedagogy: Making a national curriculum in physical education. *Journal of Education Policy, 10,* 27–44.

Fullan, M. (1991). *The new meaning of educational change* (2nd ed.). New York: Teachers College Press/OISE Press.

Fullan, M. (2000). The return of large-scale reform. *Journal of Educational Change, 1,* 5–28.

Hargreaves, A., Lieberman, A., Fullan, M., & Hopkins, D. (1998). *International handbook of educational change.* Dordrecht, Netherlands: Kluwer Academic.

Howlett, M., & Ramesh, M. (2003). *Studying public policy* (2nd ed.). Toronto, Ontario, Canada: Oxford University Press.

Hoyle, E. (1982). Micropolitics of educational organizations. *Educational Management and Administration, 10,* 87–98.

Kiesler, S., & Sproull, L. (1982). Managerial response to changing environments: Perspectives on problem sensing from social cognition. *Administrative Science Quarterly, 27,* 548–570.

Kingdon, J. (1994). *Agendas, alternatives and public policies* (2nd ed.). New York: HarperCollins.

Lasswell, H. (1958). *Politics: Who gets what, when, how.* Cleveland, OH: Meridian.

Levin, B. (2001). *Reforming education: From origins to outcomes.* London: RoutledgeFalmer.

Levin, B. (2002). Knowledge and action in education policy and politics. In A. Sweetman & P. de Broucker (Eds.), *Towards evidence-based policy in Canadian education (*pp. 1–15). Montreal, Quebec, Canada: McGill-Queen's University Press.

Levin, B. (2004a). Government and the media in education. *Journal of Education Policy, 19,* 271–284.

Levin, B. (2004b). *Students at risk: A review of research. Report to The Learning Partnership.* Retrieved October 15, 2006, from http://www .thelearningpartnership.ca/policy_research/ studentsatrisk_by_Ben_Levin.pdf

Levin, B. (2005). *Governing education.* Toronto, Ontario, Canada: University of Toronto Press.

Levin, B. (in press). Good times ahead: An argument that things might be getting better. In C. Sugrue (Ed.), *The future of educational change.* London: RoutledgeFalmer.

Levin, B., & Young, J. (2000). The rhetoric of educational reform. *International Journal of Comparative Policy Analysis, 2,* 189–209.

Luke, A. (2004). After the marketplace: Educational research, accountability and evidence-based policy. *Australian Educational Researcher, 9,* 43–73.

Manzer, R. (1994). *Public schools and political ideas.* Toronto, Ontario, Canada: University of Toronto Press.

Marzano, R. (2003). *What works in schools: Translating research into action.* Alexandria, VA: Association for Supervision and Curriculum Development.

McLaughlin, M. (1987). Learning from experience: Lessons from policy implementation. *Educational Evaluation and Policy Analysis, 9,* 171–178.

National Reading Panel. (2000). *Report of the National Reading Panel: Reports of the subgroups.* Washington, DC: National Institute of Child Health and Human Development Clearinghouse.

Neuman, R., Just, M., & Crigler, A. (1992). *Common knowledge: News and the construction of political meaning.* Chicago: University of Chicago Press.

Plank, D., & Boyd, W. L. (1994). Antipolitics, education, and institutional choice: The flight from democracy. *American Educational Research Journal, 31,* 263–281.

Pressley, M. (2005). Balanced elementary literacy instruction in the United States: A personal perspective. In N. Bascia, A. Cumming, A. Datnow, K. Leithwood, & D. Livingstone (Eds.), *International handbook of educational policy* (pp. 645–660). Dordrecht, Netherlands: Springer.

Proust, M. (2004). *In search of lost time: Swann's way* (Vol. 1, C. K. Scott Moncrieff, Trans.). New York: The Modern Library. (Original work published 1913)

Schoenfeld, A. (2006). What doesn't work: The challenge and failure of the What Works Clearinghouse to conduct meaningful reviews of studies of mathematics curricula. *Educational Researcher, 35,* 13–21.

Tinder, G. (1991). *Political thinking: The perennial questions* (5th ed.). New York: HarperCollins.

Wildavsky, A. (1979). *Speaking truth to power.* Boston: Little, Brown.

Wilson, S., Peterson, P., Ball, D., & Cohen, D. (1996). Learning by all. *Phi Delta Kappan, 77,* 468–476.

Young, J., Levin, B., & Wallin, D. (2007). *Understanding Canadian schools* (4th ed.). Toronto, Ontario, Canada: Nelson Thomson.