

Implementation of Special Education Legislation by Teachers and Principals in Ontario*

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This article describes findings from a three-year study of curriculum implementation in Ontario schools. The research investigated changes in teachers' and principals' self-reported behaviours from 1982 to 1985, when new special education legislation was implemented. The study reviewed the identification and placement of special needs students, modification and implementation of program planning, review of student placement, and evaluation of services. Profiles were used to document change; the findings lead to the interpretations and explanations offered here.

Cette recherche sur l'implantation de programmes d'études a porté sur les changements de comportement observés chez des enseignants et des directeurs d'école, tels que ces personnes les ont elles-mêmes notés, entre 1982 et 1985 durant l'implantation en Ontario de certaines lois spéciales sur l'éducation. Au nombre des comportements étudiés figuraient l'identification des problèmes des élèves ayant des besoins spéciaux, et leur classification dans le système d'enseignement, la planification des programmes, leur modification et leurs progrès, les communications et l'évaluation des services. Les changements ont été documentés par profils; les explications et interprétations proposées dans cet article sont tirées des constatations faites.

During the past decade, governments across North America have sought to provide more effective education for special needs students. Pressures for change have come from legislative examples in various jurisdictions, community demand, research findings, and professional discomfort with the status quo. Public Law 94-142 (1975) in the United States mandated appropriate programming for the handicapped and provided a legislative example for Canadian educators and politicians. Communities and families raised the issue in such parent support associations as the Association for Children and Adults with Learning Disabilities (now the Learning Disabilities Association of Canada), the Association for the Mentally Retarded, and the Association for Bright Children. Research on the inappropriateness of traditional pro-

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grams for exceptional students heightened many educators' anxiety (Goguen, 1980; Semmel, Leiber, & Peck, 1985). Teachers and students pressed for more comprehensive treatment of the special needs student and for a major review of current practice. These pressures produced two main sorts of review: those concerned with equal access to education for all students, and those concerned with appropriate placement and programs for special needs students.

In 1980, Ontario amended its Education Act better to recognize and to serve children with special needs. Commonly referred to as Bill 82, this amendment (Government of Ontario, 1980) specifically demanded that school boards plan higher levels of service delivery. For some boards, this would constitute a major departure from existing practice; for others, the change in direction would be relatively modest. Implementation was to be phased in over a three-year period, beginning 1982 September and ending 1985 September, when all boards in the province were expected to provide full services to all their special needs students—either through development of such within the board, or through purchase from other boards.

In 1982 five school boards began a three-year study of the processes used to implement Bill 82. Three teams of investigators conducted the study; each team was responsible for specific boards over the three years. Each year, each team of investigators asked a common set of research questions using similar methods; additional questions and methods unique to each team and year were also pursued (Crealock, Sitko, & Allison, 1985; Leithwood & Montgomery, 1985; Silverman & Keeton-Wilson, 1986). The study's framework was provided by an agreed model of the process of policy implementation. This model was derived partly from Leithwood's conceptualization of program implementation (Leithwood & Montgomery, 1982) and partly from the observations of Crealock et al. (1985) about the essential components of a special education service model. Leithwood has argued that agents of curricular change must understand the process of curriculum implementation if they are to be good judges of their progress in that domain. His model describes the development of major areas of change; for example, the desired improvement in the identification process, subdimensions of each area that can be objectively defined, and descriptions of stages of growth along each subdimension. The levels of stages of growth include both the intended level of implementation and the levels at which the educators are currently working.

The model recognized two fundamental issues in implementation research: (1) How does the implementation process change over time? and (2) What role is played by various individuals, groups and agencies during implementation? Fullan and Park (1981) concluded that innovations are incorporated into experienced teachers' classrooms only when and if teach-

ers are convinced of their value. They also argue that implementation is effective in an atmosphere of collegiality and cooperation where researchers, consultants, and teachers work together at the school, discussing and reflecting on their experiences (Park & Fullan, 1981, 1986).

We identified six dimensions of a special education service model. These dimensions corresponded as closely as possible to those identified by each board in its descriptions of local implementation of Bill 82. The dimensions are: (a) identification and placement, (b) program planning and objectives, (c) program modification and implementation, (d) reviewing student placement and progress, (e) communication among relevant people, and (f) evaluation of services. Within each of these dimensions, we identified several subdimensions for teachers and principals. Table 1 shows these subdimensions for each group on each of the six major dimensions. For teachers, the subdimensions have to do with provision of services and their perception of their own role in the school. For principals, the subdimensions concern their own performance and their perception of the performance of the school as a whole.

Within each dimension, we identified four levels of implementation. At the first level, implementation in the school did not reflect the Board's model (as presented in its various documents), and this was labelled Non-Implementation. At the second level, the school tried to approach the Board's intended model but only in a haphazard fashion; this was labelled Token Implementation. At the third level, the Board's model was implemented fairly well, but its literalist approach did not represent the intended attitudes and orientations. This third level was labelled Routine Implementation. At the fourth level, implementation in the school seemed congruent with the Board's model both in spirit and letter, and this was labelled Full Implementation. Table 2 shows an example of the four levels of implementation for dimension A, subdimension 1 (identification criteria for referrals, and modifications at the school level following identification).

Using this four-level model, teacher and principal responses were numerically coded to show frequency of response in each of the four sub-dimensions. Numerical values were the closest approximation appropriate in each case. For each of the dimensions, sub-dimension scores were totalled for an estimate of level of implementation for that entire dimension.

METHOD

Sample

The study involved fifty-nine teachers. Twenty-three were in elementary-level special education, sixteen in regular elementary, ten in secondary-level special education, and ten in regular secondary.

TABLE 1
Dimensions and Subdimensions of the Special Education Service Model

<i>Dimension A: Identification and Placement</i>	
<i>Teachers</i>	<i>Principals</i>
*1. Identification criteria for referrals and modifications at school level following identification	*1. Identification criteria and modifications at school level following identification
*2. Nature of referral and assessment process	*2. Nature of referral and assessment process
3. Participation in the referral process	
<i>Dimension B: Program Planning and Development of Objectives</i>	
<i>Teachers</i>	<i>Principals</i>
*1. Creating programs and monitoring progress	*1. Post placement and monitoring
*2. Developing objectives for individual	*2. Objectives for the score
3. Long term goals for SE students	3. Level of integration in the school
<i>Dimension C: Program Implementation</i>	
<i>Teachers</i>	<i>Principals</i>
1. Individualizing instructional strategies	1. Post placement programming and monitoring
2. Criteria for strategy selection	2. Staff involvement in implementation
3. Variety of strategies	3. Providing staff with skills and knowledge
4. Classroom organization	
5. Use of resources	
6. Classroom management	

TABLE 1 (concluded)

Dimension D: Student Placement and Progress Review	
Teachers	Principals
*1. Post placement monitoring *2. Recording and reporting progress	*1. Post placement monitoring *2. Record keeping 3. Direct service to student
Dimension E: Communication with Relevant Others	
Teachers	Principals
1. Communication with students *2. Communication among others	1. Impact of Bill 82 *2. Communication with staff 3. Communication with community *4. Communication with parents 5. Communication with superintendents *6. Communication with other board personnel 7. Influence of principal on teacher orientation
Dimension F: Evaluation	
Teachers	Principals
1. What is evaluated? 2. How are students evaluated? 3. Individualization of evaluation	1. Evaluation of delivery model in the school

Note: * indicates subdimensions common to both principals and teachers.

TABLE 2
An Example of Levels of Implementation

<i>A1: Identification Criteria and Modifications</i>
Level 1: Teachers report that there are no identifications taking place at their schools.
Level 2: Teachers report that identifications are infrequent and no modifications to program were made prior to formal referral.
Level 3: Teachers report that identifications were more frequent and criteria for referral covered a wide spectrum. There is some effort put into prereferral modifications but the emphasis is put on completing documentation rather than on individual needs.
Level 4: Teacher report a variety of referral criteria and a variety of ways in which school based personnel assist the classroom teacher in pre-referral modifications.

Twenty-six principals were involved, nineteen elementary and seven secondary.

Because this study concerned change in the delivery of special education, the researchers and school authorities chose schools randomly from a list of those that did provide special services. Principals from those schools were then invited to participate in the study. Finally, teachers from schools with segregated or resource programs, and regular class teachers who integrated special needs children into their programs were identified, the project was explained to them, and they were asked to participate.

The majority (80.1%) of participating teachers had had some formal training in special education; all had received informal training in special education. All teachers had at least one special needs student in their classroom. Approximately one third (31.6%) of the principals had taught special education students, and the majority (78.3%) had had informal training or experiences pertinent to special education. In every school in the study, there were special education teachers with whom the principal regularly interacted.

Instrument

Forty-three teachers and 19 principals from two of the boards were interviewed once each year during the study period and 16 teachers and 7 principals from a third board were interviewed once only. The 65 interview questions concerned demographics, dimensions of the service model described earlier, and attitudes towards implementation of Bill 82. The questions overlapped to some degree, so responses to one question in a series

TABLE 3
Comparisons Among Principals' Mean Scores on Six Dimensions of the Special Education Service Model

<i>Dimension</i>	<i>Year</i>			<i>X²(df = 3)</i>
	<i>1 (n = 26)</i>	<i>2 (n = 19)</i>	<i>3 (n = 26)</i>	
A Identification	2.3	3.3	3.9	24.18***
B Planning	2.8	3.2	3.6	12.79**
C Implementation	2.4	2.7	3.5	15.14**
D Progress	2.3	3.1	3.5	13.19**
E Communication	2.8	3.2	3.5	8.08*
F Evaluation	2.6	2.8	3.3	10.97*

Note: Maximum mean score is 4 and minimum mean score is 1.

*p .05
**p .01
***p .0001.

might answer another. For example, teachers were asked “What exactly do you evaluate when you evaluate students?” The follow-up question was “Why are these things important?,” which was often answered in the first response. All interviews lasted between 1 1/2 and 3 hours (a median of two hours) and were conducted during the first term of each year.

RESULTS

Responses to relevant subdimensions were coded according to the four levels of implementation described earlier. Changes over time were compared statistically for each group. Table 3 shows principals’ levels of commitment to implementation over the three-year period. In all areas changes are significant.

In Year 1, the average principal reported token implementation across all six service areas; in Year 2 there was some growth. By Year 3, almost all were functioning at full implementation, especially in dimensions A and B—identification, placement and program planning. The dimension showing least growth was “evaluation” (of the school model), which was still at less than optimal levels of implementation for most principals. Here, half the principals operated at a routine level—they checked procedures for efficiency, but evaluated objectives infrequently and according to intuitive criteria. Examples of intuitive criteria included “it felt right,” “I’ll ask the teachers if things are working out all right,” and “the vice-principal will take a look at it and I respect his judgment.” Forty percent, however, were at full implemen-

TABLE 4
Comparisons Among Teachers' Mean Scores on Five Dimensions of the Special Education Service Model

<i>Dimension</i>	<i>Year</i>			<i>X²(df = 3)</i>
	<i>1(n = 59)</i>	<i>2(n = 43)</i>	<i>3(n = 59)</i>	
A Identification	2.7	3.6	3.5	11.71**
B Planning	3.0	3.6	3.7	19.39***
C Implementation	3.0	3.6	3.6	10.46*
D Progress	2.7	3.0	3.2	16.08**
E Communication	2.8	3.6	3.3	10.64*

Note: Maximum mean score is 4 and minimum mean score is 1.
*p .05
**p .01
***p .001.
Dimension F was not included in teacher analyses because of missing data.

tation—they constantly evaluated and updated procedures, evaluated objectives according to specific criteria, and continually evaluated the delivery system according to both intuitive and objective criteria.

Table 4 shows teachers' levels of implementation across the three years. These significant changes include major ones between Years 1 and 2, and maintenance or enhancement of changes in Year 3. The principals' pattern of change was more linear. Teachers began at somewhat higher levels of implementation than principals but ended at comparable levels, with special strengths in program planning and implementation.

Teachers' responses at the elementary and secondary levels show more clearly the overall results of Year 3. Table 5 shows comparisons between teachers' responses at these two levels.

Secondary teachers began at significantly lower levels of implementation than elementary teachers on all dimensions, but made significant gains during the three years. Although at the end of Year 3 differences between the two levels of teachers are no longer significant, secondary teachers still perform routinely, while elementary teachers have fully implemented identification, review, and communication with significant others. On the identification dimension, "routine" implementation means the referrals frequently are routed to the school team for decision without much pre-referral modification, and that emphasis is on completing the procedures and documentation rather than on meeting individuals' needs. At the routine level, post-referral monitoring and record-keeping involve primarily teachers but with some assistance from the principal or special education personnel. The work in-

TABLE 5
Comparisons Between Mean Scores on Five Major Dimensions of the Special Education Service Model

Dimension	Year 1			Year 3		
	Elemen-	Secon-	$X^2(df=3)$	Elemen-	Secon-	$X^2(df=3)$
	tary	dary		tary	dary	
	Teachers	Teachers		Teachers	Teachers	
	n=37	n=20		n=37	n=20	
	x	x		x	x	
A Identification	3.2	1.7	12.50**	3.7	3.1	6.38
B Planning	3.1	2.4	8.29*	3.8	3.3	7.16
C Implementation	3.6	2.7	10.20*	3.9	3.4	3.96
D Progress	3.0	2.5	9.12*	3.3	3.1	5.25
E Communication	3.2	2.4	16.27***	3.4	3.1	3.03

Note: Maximum mean score is 4 and minimum mean score is 1.

*p .05

**p .01

***p .001.

cludes annual reviews performed according to legal requirements, keeping mark books with samples of work and occasional anecdotal comments, filling out reports, and occasionally making an extra report to parents or in-school personnel. Communication with students is usually formal, through marks, report cards, and written comments, while communication with others is generally done as required rather than sought out spontaneously as an opportunity to share information—which characterizes full implementation.

Table 6 shows the difference between regular and special class teachers. Although special education teachers started out ahead of regular class teachers in all service areas, the differences were not as marked by the third year.

All teachers show strong performance in the program dimension, characterized by (a) individualization of instructional strategies for all students (regular and special), (b) strategies that meet student needs and complement individuals' learning styles, (c) use of as many strategies as appropriate, (d) flexible arrangements of furniture to facilitate student need, (e) individual and group work, and (f) clear theories of classroom management that allow for individual differences and personalities and in which discipline is, as far as possible, a matter between teacher and student.

Both teachers and principals were asked about their own and each other's

TABLE 6
*Comparisons Between Regular and Special Class Teachers on Mean Scores on
 Five Major Dimensions of the Special Education Service Model*

Dimension	Year 1			Year 3		
	Regular Class n=26	Special Educa- tion n=31	$X^2(df=3)$	Regular Class n=26	Special Educa- tion n=31	$X^2(df=3)$
	x	x		x	x	
A Identification	2.3	3.1	7.29	3.2	3.6	8.43*
B Planning	2.1	3.2	14.01**	3.3	3.8	5.98
C Implementation	2.9	3.7	17.05***	3.5	3.9	6.36
D Progress	2.5	3.0	6.6	3.2	3.3	3.69
E Communication	2.5	3.1	9.05*	2.9	3.6	13.57**

Note: Maximum mean score is 4 and minimum mean score is 1.

*p .05

**p .01

***p .001.

roles in implementing the special education service model. Tables 7 and 8 show their responses.

The teachers' sense of their own role has changed. In the first year, the majority of teachers responded at the fourth level, seeing themselves as responsible for virtually the entire implementation process. In the second year, the majority of teachers saw themselves as part an implementation team. By the third year, most teachers described themselves and their tasks in terms of the team. Breakdowns of responses show that special education teachers tended to respond at the fourth level in earlier years and have now, with one exception, changed their descriptions, away from the *tour de force* to team approach. Regular teachers, on the other hand, in earlier years tended to respond at the first two levels, either unaware of their responsibilities or believing their task involved only awareness of special programs being taught by others. By the third year, all but one regular teacher had also acquired the team approach.

Most principals too see the teacher as an essential part of the school team. Their sense of the teacher's role did not change very much during the three years, although there were some shifts. Secondary principals in the main still respond at the lowest level: a teacher may identify a student, but otherwise only responds to the actions of others, attending meetings as required and

TABLE 7
The Role of the Teacher as Seen by Teachers and Principals

<i>A. Teachers' View of His/Her Own Role (n = 43)</i>			
<i>Level of Response</i>	<i>Year</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Level 1. Don't know	7	2	0
Level 2. Regular teaching, awareness of special-needs students	7	6	2
Level 3. Regular teaching, meeting IEP goals, working with team on development and review of program and placement	3	27	40
Level 4. Individualize teaching, program development and monitoring, liaison with all involved	26	8	1

<i>B. Principals' View of Teachers' Role (n = 19)</i>			
<i>Level of Response</i>	<i>Year</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Level 1. Teacher refers to team, is available to respond upon request	7	7	5
Level 2. Teacher works on preparing case and on follow-up	8	9	7
Level 3. Teacher is a key factor, involved at all stages	4	3	6

making changes suggested by others. The principal perceives the elementary teacher to be more involved in the delivery of special education than is the secondary teacher, which is consistent with the relative size of secondary and elementary schools, and with their complexities.

Table 8 shows teachers' and principals' perceptions of the principals' roles. Between the second and third years, teachers did not much change their view of the principals' role. Most responses are divided between the monitoring and supportive role. There have, however, been some interesting shifts within the sample. Elementary teachers tended to see the principal in a supportive role in Year 2, but a number changed to perceive them more in a monitorial role in the Year 3. On the other hand, secondary teachers tended to shift slightly in the other direction. The secondary teachers' shift may be entirely random, or may illustrate changing stages of implementation.

Most principals see their role as managerial, a perception fairly consistent with teachers' views of them. There is something of a split, however, with all the elementary school principals, but only one-third of secondary principals,

TABLE 8
The Role of the Principal as Seen by Teachers and Principals

<i>A. Teachers' View of Principals' Role (n = 43)</i>			
<i>Level of Response</i>	<i>Year</i>		
	<i>2</i>	<i>3</i>	
Level 1. Don't know	1	0	
Level 2. He/she must reconcile this with everything else	1	0	
Level 3. Monitors teachers, programs and pupils	16	17	
Level 4. Supports teachers emotionally and materially, sets the school climate, supervises	25	26	
<i>Note: This question was not asked teachers in Year 1.</i>			
<i>B. Principals' View of Their Own Role (n = 19)</i>			
<i>Level of Response</i>	<i>Year</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Level 1. Withdraws, keeps informed but not involved	2	1	1
Level 2. Collegial, member of the team	5	4	2
Level 3. Authoritarian, leads the team	5	0	1
Level 4. Managerial, co-ordinates team, liaises with everyone else	7	14	15

seeing themselves in a managerial role. Half of the other secondary principals report a collegial role, while the remaining two report an authoritarian and withdrawn role.

As Table 8 shows, principals have tended to move away from the withdrawn role and towards the managerial role over the study's three years. There is a very strong correlation between principals' responses regarding role perception and overall levels of implementation described earlier in this paper. Principals who report a managerial role consistently score higher on implementation measures, with an average level of 3.7 (that is, very nearly full implementation). Principals reporting an authoritative role average 3.5, which still approaches full implementation. Principals reporting a collegial role average only 3.0, a routine level of implementation in which procedures are followed but not with the intended spirit. Principals reporting a withdrawn role averaged only 2.8 in implementation level. It is quite probable that the managerial style is necessary for full implementation of the Board's special education plan, since that style embodies all the principals' tasks specified under the Board's plan. Whether role precedes implementation is uncertain; they may be virtually the same thing.

Attitudes towards Bill 82 were seen as important to successful implementation of the special education service model. Principals and teachers were asked what aspects of Bill 82 concerned and pleased them. Both groups spontaneously reported more likes than concerns. They were pleased by greater awareness of exceptional students' needs and by greater likelihood of resources going to children who really needed them. Principals were concerned about inadequate funding, teacher preparation, and time line for implementation. Teachers were concerned primarily about overload for the regular class teacher, inconsistent follow-up, and their sense that the letter, rather than the spirit, of the law was being implemented.

Major concerns were consistent over the three years with one exception. In Year 1, 20% of teachers were worried about the possibility of being required to integrate severely disabled students, but by Year 3 this fear was not mentioned at all. Likes too remained relatively consistent over the three years. Clearly both teachers and principals see much good in the legislation and support its intent. One principal summarized the most common attitude: "This has made teachers see kids as their responsibility, not their problem."

DISCUSSION

Major areas of growth were identified for both teachers and principals over the three-year study. In terms of the special education service model dimensions themselves,

1. identification procedures and pre-referral interventions were rather haphazard and became cohesive;
2. referral and assessment procedures became much more consistent with the system model;
3. integration models in individual schools changed to allow greater emphasis on integration based on individual strengths and needs;
4. both the criteria used to select resources, and the variety of resources used increased over the three years, as did the variety of instructional strategies used and the individualization of teaching strategies;
5. staff involvement in implementation of the legislation increased steadily over the three years, with both teachers and principals coming to see themselves as parts of a school team;
6. monitoring of student progress after placement increased, and procedures for recording and reporting student progress improved (this is especially notable at the secondary school level);
7. communication with students, especially by secondary teachers, changed to include much more frequent, informal discussion about student progress.

Among teachers, there have been several specific changes. Two aspects of classroom climate—organization of the physical classroom, and the teacher's

management of student behaviour—have both changed significantly towards more flexibility and focus on students. This change has been especially notable among secondary regular teachers.

Teachers' perceptions of their role in the delivery of special education have changed. Whereas special education teachers tended to feel that they were all alone in providing individualized programs and regular teachers tended to agree with that view, both groups changed to perceive themselves and each other as part of a team to deliver special education. Finally, teachers were more positive about the effects of Bill 82 at the end of the study than at the beginning. They were less concerned about the legislation and more enthusiastic about its benefits.

There were also several changes specific to principals. Principals now directly contact special students much more often and much more deliberately. Communication with the community in general and with other agencies in particular has increased a great deal, as has communication with parents and superintendents. Particularly at the secondary level, the principal increasingly understands how his orientation influences his teachers.

There continue to be difficulties in programming and in evaluation of special needs students. Although teachers have improved their programming, this growth still falls wide of full implementation of the intended model. Some teachers express concerns about the quality of programming for special students, particularly about the breadth of curriculum available to them. Principals interviewed shared this concern. Secondary regular teachers are still noticeably behind all other groups in selection of appropriate teaching strategies, both in variety of strategies and the way they are chosen.

Evaluation criteria at both pupil and program levels are inconsistent. The evaluation of students for credits in segregated secondary schools is clearly a problem, which may worsen with the introduction of the new secondary school regulations in Ontario.

For principals, evaluation of the delivery model did not change much overall in the three years, although there was some improvement between Years 2 and 3, which suggests the beginning of change. The improvement, however, seems tied to individual schools rather than to a change of direction in the whole system.

How may we explain the changes noted during the three-year period? The observed changes are the result of each school board's concerted effort to implement changes mandated by Bill 82. This was most obvious in introduction of procedures for implementation, and in development of inservice schemes. Each board provided total system inservice schemes to justify its service model and offered specific information to individual educators. In addition (and of at least equal significance), most teachers and principals sought additional knowledge through courses, workshops, and personal reading.

The efforts of the Ministry of Education were important. Ministry officials drew up membership and function procedures for each legislated special education committee and developed guidelines for the entire service model. In addition, the Ministry allocated considerable additional funds to allow boards to expand their services to exceptional students, and sponsored workshops across the province to explain and interpret Bill 82. Although curriculum change may best be implemented if teachers support and direct it to some degree (Hurd & Huling-Austen, 1986) there has also been successful top-down or legislated change (Grossman, Kirst, & Schmidt-Posner, 1986). In this instance, educators at all levels in the system argued for new legislation in special education, and changes occurred at all levels.

Another important element in change is the increased availability of appropriate models across the system. Role models from the elementary level were available to secondary school teachers, and special education teachers provided examples of good practice for regular teachers at both levels. Elementary school educators started out at higher implementation levels than did their secondary-level colleagues. However, during the implementation phase, educators at both levels interacted with each other more through inservice experiences and through sessions planning successful linkages between the two school levels. This interaction allowed secondary educators to see how greater program individualization could occur and may have contributed to their change. In the schools themselves, regular and special educators interacted much more. This was partly because increased funding was channelled into resource-room programs that involved all the school's educators. In many schools it was not unusual for the special education teacher to go into a regular class to teach small groups and to share materials with the regular teacher. As the team approach and concept of shared responsibility grew, both teachers and principals took more active roles in planning for special needs students in the school.

Another reason for change was the presence of the research team itself. It was not unusual for respondents to say in Year 1 that they had not spent much time thinking about what and why they did things, but by Years 2 and 3 they had considered many areas of their program, and changed many of their practices. While this suggests caution in generalizing change, it also suggests change can be implemented relatively easily—if board administrators, independently or in collaboration with program evaluation teams, regularly meet with individual change agents to review areas of change and progress towards reform (Park & Fullan, 1986).

Finally, changes in implementation are influenced by educators' contact with special education students, a factor observed previously (Johnson, Johnson, & Maruyama, 1983). For principals and most teachers interviewed, regular day-to-day contact with special students changes hostile or neutral attitudes more often than anything else. It might not be overly optimistic to

hope that this same contact, which allows educators to get to know special students as individuals rather than statistics or problems, will eventually have a similar effect on those educators who have not yet come into such close contact as most of those in this study, and who may still harbour hostile or ambivalent attitudes towards exceptional students.

It is not possible to say which factors were primarily responsible for observed changes. However, all were important during the implementation phase of Bill 82 and continue to be so, and thus suggest further research might determine the importance of each. Attitudinal and behavioural changes do not translate directly into actual practice and student gain in cognitive and affective areas. Observation of student-teacher interaction in the classroom during the three years (Crealock, Sitko, & Allison, 1985; Crealock, 1986) indicates that teachers interact with both exceptional and regular students in a similar manner. Comments by the teachers in the project support the teachers' contention that increased individualization in the regular class improves educational practice. Further research is needed, however, to validate systematically the reported changes.

The method of profile analysis used in this study to code teacher and principal growth effectively quantifies changes in attitudes and behaviours of educators. Although it would be best used in conjunction with observation of practice and with student outcome measures, independently it provides educators with a useful scale of perceived change resulting from system and school initiatives.

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In dieser Studie der Lehrpläneinführung wurden von Lehrern und Schulleitern selbst berichtete Änderungen in deren Verhalten in den Jahren 1982–1985 während der Einführung einer speziellen Bildungsgesetzgebung in Ontario untersucht. Die analysierten Verhaltensformen umfaßten die Identifizierung und Einstufung von Schülern mit besonderen Bedürfnissen, Modifizierung und deren Fortschritte, Kommunikation, sowie die Bewertung von Dienstleistungen. Um Änderungen darzulegen, wurde der Profilansatz benutzt. Die Ergebnisse führen zu den folgenden Interpretationen und Erläuterungen.

Este estudio de la implementación curricular examina cambios en el comportamiento (auto-declarado) en los enseñantes y rectores desde 1982 hasta 1985, durante la implementación de la legislación de educación especial en Ontario. Los comportamientos examinados incluyeron identificación y la ubicación de estudiantes con necesidades especiales, modificación e implementación de la planificación de programas, reevaluación de la ubicación y progreso del estudiante, comunicación y evaluación de servicios. Un acercamiento individual de cada caso fue empleado para documentar el cambio, y los hallazgos condujeron a las interpretaciones y explicaciones presentadas aquí.

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