Toward Inclusion of Special Education Students in General Education

A Program Evaluation of Eight Schools

LORNA IDOL

ABSTRACT

The primary intent of this program evaluation was to determine the degree of inclusion of students with disabilities in general education classes in four elementary and four secondary schools; the similarities and differences in how special education services were offered; and the ways in which students with disabilities were supported in the least restrictive environment. Staff perceptions of special education services were examined by conducting personal interviews with a large majority of the classroom teachers, special education teachers, instructional assistants, and principals in each school. The findings include descriptions of how far along each school was with inclusion, the amount of time students spent in general education, the roles of the special education teachers, the rates of student referrals for special education consideration, the attitudes of all staff toward inclusion and toward collaboration, and the skills of the teachers related to the inclusion of special education students. The findings also include descriptions of the impact of inclusion on other students, the performance of all students on a statewide test, and the qualitative responses of educators toward inclusion. Overall, educators were positive about educating students with disabilities in general education settings. They were conservative about how to best do this, with many of them preferring to have the included students accompanied by a special education teacher or instructional assistant or continuing to have resource room services. Nearly everyone favored using instructional assistants to help all students, not just the students with disabilities. Most educators reported feeling positive about working collaboratively and felt they had administrative support to offer inclusive education programs.

THE PURPOSE OF THIS PROGRAM EVALUATION WAS to examine and describe how special education services were provided in four elementary schools and four secondary schools (two middle schools and two high schools) in a large, metropolitan school district in a southwestern city. The following definition was used as a benchmark for determining the degree of inclusion in the eight schools:

> In the inclusive school, all students are educated in general education programs. Inclusion is when a student with special learning and/or behavioral needs is educated full time in the general education program. Essentially, *inclusion* means that the student with special education needs is attending the general school program, enrolled in age-appropriate classes 100% of the school day. (Idol, 1997, p. 4)

The primary intent of this program evaluation was to determine how much, if any, inclusion of students with disabilities in general education classes was occurring in these eight schools. Another intent of the study was to better understand how each school provided for students with disabilities in the least restrictive environment, as mandated in the Education for All Handicapped Children Act of 1975 and further

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clarified through the Individuals with Disabilities Education Act (IDEA), passed in 1990 and renewed in 1997 and 2004.

Inclusion is when students with disabilities receive their entire academic curriculum in the general education program. This is different from *mainstreaming*, which is when students with disabilities spend a portion of their school day in the general education program and a portion in a separate special education program (Idol, 1997). Both inclusion and mainstreaming are ways to educate students with disabilities in the least restrictive environment (LRE). Both inclusion and mainstreaming were practiced to varying degrees among the eight schools that were studied; see related discussions in Kauffman and Hallahan (1995) and Hallahan and Kauffman (2000) on inclusion versus mainstreaming, related research on the social benefits of inclusion (Buysse & Bailey, 1993; Campbell, Dobson, & Bost, 1985; Cole & Meyer, 1991; Giangreco, Dennis, Cloninger, Edelman, & Schattmann, 1993; Hocutt, 1996; Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994; Hunt & Goetz, 1997), and related research on the academic benefits of inclusion (Hocutt, 1996; Marston, 1996; Sharpe, York, & Knight, 1994; Vaughn, Elbaum, & Schumm, 1996; Willrodt & Claybrook, 1995).

Related Forms of Special Education Service Delivery

Several different types of collaborative teaching programs are used in supporting general education teachers who teach special education students: consulting teacher services, cooperative teaching in the classroom, supportive resource programs, and instructional assistants. The intent of each of these services is for staff to work collaboratively, and each service is viewed as an important means of supporting classroom teachers. In particular, collaboration leads to a reconceptualization of how special support programs can best be offered by both general and special education. Various forms of these models were found among the eight schools included in this program evaluation. Brief explanations of each of these student support structures follow.

Consulting Teacher Model

The consulting teacher model (e.g., Idol, Nevin, & Paolucci-Whitcomb, 1994, 2000) is a form of indirect special education service delivery in which a special education teacher serves as a consultant to a classroom teacher. Special education students receiving indirect services are taught by the classroom teacher. The consultant works indirectly with the targeted students by working directly with the classroom teacher.

Cooperative Teacher Model

In the cooperative teaching model, special education and classroom teachers work together with a variety of coteaching arrangements in the same classroom to provide educational programs for all students (see Bauwens, Hourcade, & Friend, 1989). Cooperative teaching has been described as being a direct and complementary outgrowth of the collaborative consultation model (Idol et al., 1986).

Supportive Resource Programs

Wiederholt and Chamberlain (1989) defined the resource room approach as being

> any setting in the school to which students come to receive specific instruction on a regularly scheduled basis, while receiving the majority of their education elsewhere (usually in a general school program). Therefore, resource rooms are not part-time special education classes where students with handicaps are integrated with peers only for lunch, gym, or art. They also are not consultative programs where students remain full-time in a general classroom setting and where modifications are made in instruction. Neither are they study halls, discipline or detention centers, or crisis rooms. (p. 15)

In supportive programs, resource teachers and classroom teachers collaborate in designing the contents of a student's individualized program of instruction for the resource room. The purpose of the collaboration is to ensure that the resource room program truly supports the general education program and is likely to support students' transferring what they have learned in the resource room to learning in the general education classroom.

Instructional Assistants

A fourth type of service delivery to support inclusion programs is providing instructional assistants (paraprofessional aides) to accompany special education students attending general education classes. Typically, this is one of the first options that educators choose for providing assistance to classroom teachers, particularly if they have not had preliminary preparation in building collaborative and inclusive schools. Often, such assistants are funded exclusively with special education monies, to provide assistance to a single student with special education needs. The instructional assistant then remains with that student throughout the school day.

Rationale

The rationale for this program evaluation was to describe what happens in schools as educators move toward more inclusive educational practices, moving from simply providing students with schooling opportunities in the LRE to the provision of full inclusion services. For example, there are several indicators of inclusion success that are important to

examine when trying to understand what happens with a school faculty in this process. These indicators are reflected in the questions that were asked of the educators in each of these eight schools and covered the following areas:

- the types of disabilities of the students in special education attending the school;
- the amount of time that students in special education actually spent learning in the general education program;
- the number and types of support personnel available and how they were used;
- the number and types of referrals for special education testing;
- the attitudes of all staff toward one another, toward collaboration, toward students with special education needs, and toward inclusion;
- staff perceptions of their skills in making instructional and curricular modifications, as well as their skills in student discipline and classroom management;
- staff perceptions of the impact of inclusion on other students.

Method

Selection of Schools

The executive director of special education programs for the participating school district selected the eight schools. The criteria for selection were that each school had a well-developed special education program and that the staff at each school felt that their approach to the education of students with disabilities was appropriate. The director believed that some schools were further along with inclusion than others and was purposeful in selecting the schools, one half of which were from the bottom and one half from the top of a continuum from no inclusion to full inclusion. The principals and faculty from each selected school had all indicated to the director that they offered strong and supportive programs for students with special education needs.

Data Collection

Both qualitative and quantitative data were gathered in this program evaluation through a personal interview with the majority of educators at each school. It was thought to be important to measure the perceptions of all instructional staff, rather than merely of a random sample or only of the leaders or the most outspoken educators in each school. Thus, in each of the eight schools, an effort was made to interview as many educators as possible in the 2 to 3 days allowed by the school district for the interviews.

A structured interview with preconceived questions and choices of responses was privately conducted with each individual. In a few cases, teachers who taught together were interviewed together at their request. As many people as possible were interviewed at each school. Exceptions occurred only if staff members were not available at the time of the site visit; the administrators created the interview schedules; no one refused to be interviewed. The interviews were structured around questions that were specific to the roles of the educators being interviewed. In each interview, the evaluator gave the interviewee a copy of the questionnaire to read while the evaluator asked questions and wrote responses on a second copy of the same questionnaire.

Statewide test data for all students in each of the eight schools were also examined to provide information regarding the effect of testing students with disabilities on the overall test results for the school. These data had already been compiled and were collected through the systemwide testing office for the school district.

Data Analysis

Quantitative data were reported with frequencies and percentages, with reliability checking conducted to obtain 100% interrater reliability. The interviewer recorded the qualitative responses during the interviews, which consisted of the additional comments of all teachers being interviewed. These comments were organized into seven categories: school district policies, inclusion, modifications, special education teachers, instructional assistants, students' behaviors, and statewide test scores. These responses were then listed by subject category of response by schools and across schools, and summative statements were gleaned from the responses.

Results

The interview method was well received at all eight schools. The principals and staff arranged the schedules so that a large majority of educators was interviewed at every school. The teachers and instructional assistants were receptive to the interview process and made time in their busy schedules for the process to occur. Due to the complexity of this program evaluation, the results are organized into two parts. The first part contains the results of the program evaluation of the four elementary schools, and the second part the results of the evaluation of the four secondary schools.

Elementary Schools

In the first year of the program evaluation, the evaluator visited each of the four participating elementary schools for

the equivalent of 2 days at each school. She interviewed principals, assistant principals, classroom teachers, special education teachers, special area teachers (i.e., counselors, speech–language pathologists, computer laboratory teachers, physical education teachers, music teachers, and art teachers), and instructional assistants, resulting in 125 interviews. Five administrators and four instructional assistants (one at each school) were interviewed. Also interviewed were 79 classroom teachers (75% of the total across schools), 24 special education teachers (92% across schools), and 13 support staff (50% across schools).

Elementary School A. The campus improvement plan at this elementary school did not include planning for inclusion, nor for special education. However, in the year of this program evaluation, the staff had begun working on these issues, and the assistant principal hoped to have a plan for inclusion ready for the forthcoming school year. The special education services provided included (a) one teacher who served as a consulting teacher, a cooperative teacher, and a resource teacher, and (b) six special education classes (four self-contained classes and two content mastery classes). The other types of teaming structures included grade-level teams and a campus advisory council.

Elementary School B. The campus improvement plan at School B did not include planning for inclusion, or for special education. The special education programs included (a) a resource room program and (b) cooperative teaching (used in the early childhood and kindergarten programs). Other types of teaming structures included grade-level teams and a campus advisory council that was interested in developing teacher assistance teams.

Elementary School C. This school's staff was in the process of revising their campus improvement plan. They had had inclusion in place for 4 years, but it was not reflected in the plan. Three years prior, three self-contained classes were added for students with behavioral challenges. Some of these students were mainstreamed when possible and where appropriate. The special education supportive services included (a) consulting teaching, (b) cooperative teaching, (c) a content mastery resource room (as needed for any student with a curriculum supportive of the general education curriculum), (d) two self-contained classes for students with behavioral challenges, and (e) two life skills classes. The other types of teaming structures included the use of vertical teams (K–5), a campus advisory council, a campus improvement planning team, and committees of excellence for monitoring the campus improvement plan and facilitating special activities.

Elementary School D. In this school, special education was an integral part of the total school plan. All students with disabilities were taught in the general education program. There were no pullout programs for academic instruction, although children were pulled out of the general education classroom for speech and language therapy. The supportive services provided to classroom teachers included one teacher who worked as a consulting teacher and as a cooperative teacher, depending on the class. The other types of teaming structures included the use of grade-level teams and a campus advisory council.

Incidence and Types of Disabilities. The number and types of students with disabilities in each school varied considerably (see Table 1). Across the four elementary schools, the number of students with disabilities seemed to be related to how far along each school was with inclusion. For example, Elementary School D made the most advances with inclusion, and they had the fewest students with disabilities; however, nearly all of the students at this school were reported as being at risk for school failure due to a combinations of low test scores and low-income families.

Time Spent in General Education. Elementary School D was the *only* school that included all of the students with disabilities in the general education program 100% of the time. There were only three other students (one at Elementary School A and two at Elementary School B) who were included 100% of the time. There were no students at Elementary School C who were included 100% of the time, but 14 students were included 90% of the time. At each of the schools where inclusion was offered, there were students with disabilities spending from 75% to 99% of their time in general education classes (38% at Elementary School A, 36% at Elementary School C, but only 15% at Elementary School B). In contrast, there were large numbers of students at Schools A, B, and C who spent either no time or less than 25% of their time with general education students.

Referrals for Special Education Testing. The proportion of students referred annually for special education testing of academic problems was remarkably similar across the four elementary schools, ranging from 2% to 3% of the total school population. There were few referrals for behavioral problems. The district had an alternative school program for students with severe behavioral problems, and the state has no special education category for behavioral problems, only for students with emotional disturbances.

Attitudes of Elementary School Administrators Toward Inclusion. Three principals and two assistant principals (at Schools A and B) were interviewed. The principal at Elementary School A was on medical leave, and the assistant principal was the acting principal. All of the administrators reported they were very much in favor of inclusion; their attitudes toward students with disabilities were very supportive, and they thought they were good collaborators who worked well with the teachers. None of them were in favor of inclusion without extra support for the classroom teacher.

When asked how they thought students with disabilities were best educated, three of the administrators said their first choice was for the students to attend grade-level classes with a special educator or an instructional assistant. Another ad-

TABLE 1. Types of Primary Disabilities of Students With Disabilities at the Four Elementary Schools

	School A		School B		School C		School D		Total
Disability	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Auditory	25	29	0	0	0	0	0	0	25
Autism	0	0	2	2	2	3	0	0	4
Emotional disturbance	13	15	6	6	10	14	2	4	31
Learning disabilities	20	23	25	27	26	36	32	56	103
Multiple disabilities	0	0	2	2	0	0	0	0	2
Mental retardation	3	4	8	9	9	12	1	2	21
Orthopedic handicaps	0	0	2	2	0	0	0	0	2
Other health impairment	7	8	6	6	16	22	3	5	32
Speech impairment	19	22	43	46	10	14	19	33	91
Total	87		94		73		57		311

ministrator chose this option as a strong second choice. Two administrators' first choice was to educate students with disabilities in grade-level classes with supportive resource services. Only one administrator chose to mainstream students with disabilities only part-time, and this was a second choice. All of the administrators thought that inclusion would be best implemented if extra adults were provided to work with any student needing assistance, not just with the students in need of special education.

Attitudes of Faculty Toward the Principal. Each of the 120 educators interviewed was asked which of two roles best described their principal: instructional leader or administrative leader. At every school there were mixed responses; the majority at Elementary School D (79%) and, to a lesser degree, Elementary School C (56%) viewed their principal as fulfilling both roles. At Elementary School B, 28% thought that the principal filled both roles, but the majority (59%) thought of the principal as an administrative manager. At Elementary School A, 76% of the faculty gave this rating, but only 30% of the faculty at Elementary School B rated their principal as being very supportive of inclusion. However, 37% did not rate the principal because this was her first year at Elementary School B and they were not certain as to her stance.

These educators also tended to rate their principals high on being supportive of them as professionals. Across schools, the majority said their principals were *very supportive* of them. Very few individuals said otherwise.

Elementary Educators' Skills in Accommodating Students With Challenging Needs. Teachers and instructional assistants rated themselves in three skill areas related to the effective inclusion of students with disabilities: (a) adaptation of instruction, (b) modification of curriculum, and (c) student discipline and classroom management (see Table 2). Generally, in all four schools, they reported they were applying the skills in each of the three skill areas.

Adaptation of instruction. Following are some prominent findings:

- At Elementary School A, 42% of the teachers rated themselves as being *very skilled* at making adaptations for students with disabilities. These teachers rated themselves higher on adapting instruction for students with disabilities than for students who were at risk for school failure.
- At Elementary Schools B and C, the second most frequently occurring response was teachers viewing themselves as being *very skilled* with both types of students.
- At Elementary School D, the teachers were more involved with inclusion than in the other schools, yet 21% reported that they needed more practice with students with disabilities, and 24% said they needed more practice with students who were at risk for school failure.

Curricular adaptations. The responses were similar across three schools (Schools A, B, and C) for making curricular adaptations for students with disabilities and students at risk for school failure, with the majority of educators at

TABLE 2. Educators' Perceptions of Skills in Accommodating Special Education and At-Risk Students in Elementary Classrooms

	Very skilled		Applying the skill		Practicing the skill		Need more information		No response	
Student type	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**
					Adapting Instruction					
Special education										
School A	14[a]	42	13	39	3	9	2	6	1	3
School B	10	37	11[a]	41	4	15	2	7	0	0
School C	6	22	15[a]	56	5	19	1	3	0	0
School D	5	15	11[a]	33	7	21	8	24	2	6
At risk										
School A	11	34	16[a]	48	5	15	1	3	0	0
School B	8	30	13[a]	48	1	4	3	11	2	7
School C	10	37	14[a]	52	2	7	1	4	0	0
School D	7	21	14[a]	42	8	24	2	7	2	6
					Modifying Instruction					
Special education										
School A	10	30	15[a]	45	3	9	3	9	2	6
School B	4	15	11[a]	41	6	22	4	15	2	7
School C	8	30	11[a]	41	7	26	1	4	0	0
School D	5	16	4	12	11[a]	33	9	27	4	12
At risk										
School A	8	24	14[a]	42	8	24	1	3	2	6
School B	4	15	13[a]	48	2	7	5	19	3	11
School C	10	37	12[a]	44	4	15	1	4	0	0
School D	8	25	9	28	11[a]	33	2	6	3	9
					Discipline and Management					
Special education										
School A	14[a]	42	13	39	3	9	2	6	1	3
School B	11[a]	41	9	33	4	15	2	7	1	4
School C	14[a]	52	6	22	6	22	1	4	0	0
School D	10	30	12[a]	36	3	9	6	18	2	6
At risk										
School A	13	39	16[a]	48	3	9	0	0	1	3
School B	7	26	12[a]	44	3	11	3	11	2	7
School C	13[a]	48	10	37	3	11	1	4	0	0
School D	13[a]	39	11	33	4	12	3	9	2	6

Note. Percentage data were rounded to the nearest whole number. A 4-point Likert scale was used, with 1 = *very skilled*; 2 = *applying the skill*; 3 = *practicing the skill to learn it*; 4 = n*eed more information about the skill*.

[a] Highest frequency of response by student type and school.

each school reporting themselves as applying this skill but not being highly skilled. At Elementary School D, 33% of the educators reported themselves as practicing (i.e., working on developing the skill) to make curricular modifications with both special education students and students who were at risk. However, a combined percentage of 53% said that they were applying the skill or were very skilled at making curricular adaptations for students who were at risk for school failure.

Student discipline and classroom management. Teachers at Schools A and B perceived themselves as being more skilled in managing students with disabilities than students at risk for school failure; the reverse was true at Elementary School D. One explanation for this finding might be that Elementary Schools A and B had more students with disabilities and more students who had more serious challenges. At Elementary School C, the majority of educators thought they were very skilled at making adaptations for either population

(52% for students with disabilities and 48% for students who were at risk).

Elementary Educators' Attitudes Toward Teaching Students With Disabilities. Teachers were asked to report their attitudes about teaching students with disabilities for the previous year and again for the year in which the program evaluation was conducted by selecting one of four response choices (as listed in the footnotes to Table 3).

There was little change in teachers' attitudes about inclusion and about students with disabilities across the four elementary schools from the previous year to the year of the program evaluation (see Table 3). Attitudes toward inclusion tended to range from staff being willing to accept and try inclusion to being very much in favor of inclusion. Note that Elementary School D responses indicated that staff were slightly more in favor of inclusion at this school, where inclusion was practiced.

Similarly, attitudes toward students with disabilities were positive and indicated that most educators across schools were supportive of these students. There was also little change in attitudes from the previous year to the year of the program evaluation.

Elementary Educators' Perceptions of Collaboration. Elementary educators rated themselves positively on how collaboratively they worked with other adults (see Table 3). For all four schools, the averaged responses fell between 1

TABLE 3. Educators' Averaged Attitudes Toward Teaching Students With Disabilities in the Classroom

School	Attitude toward		
	Inclusion[a]	Students with disabilities[b]	Working collaboratively[c]
Elementary Schools			
School A			
Past year	1.81	1.12	1.69
Year of evaluation	1.84	1.12	1.72
School B			
Past year	2.00	1.07	1.48
Year of evaluation	2.00	1.07	1.63
School C			
Past year	1.63	1.30	1.37
Year of evaluation	1.56	1.26	1.30
School D			
Past year	1.42	1.30	1.49
Year of Evaluation	1.46	1.27	1.52
Secondary Schools			
Middle School E			
Past year	1.58	1.33	1.23
Year of evaluation	1.60	1.33	1.23
Middle School F			
Past year	1.60	1.23	1.31
Year of evaluation	1.51	1.14	1.30
High School G			
Past year	1.89	1.40	1.74
Year of evaluation	1.86	1.37	1.66
High School H			
Past year	1.69	1.23	1.60
Year of evaluation	1.83	1.17	1.50

[a] 4-point Likert scale: 1 = *I am very much in favor*; 2 = *I am willing to accept and try it*; 3 = *I am willing to accept if others do it*; 4 = *it is not appropriate*. [b] 4-point Likert scale: 1 = *very supportive*; 2 = *willing to accept in my class*; 3 = *willing to accept for other teachers*; 4 = *not supportive of public elementary school attendance*. [c] 4-point Likert scale: 1 = *others view me as a good collaborator*; 2 = *I work with other teachers*; 3 = *I am willing to work with other teachers*; 4 = *I prefer to work alone*.

(*Others view me as a good collaborator*) and 2 (*I work with other teachers*). The responses were lowest (i.e., most collaborative) at Elementary School C, but all schools had responses ranging from thinking that others thought of them as being collaborative to being willing to work with other teachers. Fewer than 1% of the responses fell outside of this range.

Elementary Educators' Attitudes Toward Inclusion. The data in Table 4 pinpoint elementary educators' attitudes more precisely. The educators were asked to respond to two items pertaining to *where* and *how* to best teach students with disabilities. Across all four elementary schools, only two individuals thought that students with disabilities should be taught in self-contained special education classes, and no one thought that they should be educated in separate special education schools.

Impact of Inclusion on Other Students. Also examined were elementary educators' perceptions of changes in general education students as a result of educating students with disabilities in the general education classes. Across the four elementary schools, they reported that the other students in the classroom remained unaffected by the presence of students with disabilities. The majority (68%) across the four schools thought that the others students improved (36%) or remained about the same (32%) across the six variables. Overall, the impact of including students with disabilities in the classroom was *not* thought to be harmful to other students. Only 6% of educators across schools responded that the other students were adversely affected by the presence of the students with disabilities in the general education classes.

Furthermore, 36% of the respondents reported that having students with disabilities in general education classes resulted in an increase in the statewide test scores of general education students, and an additional 33% reported that the test scores of general education students remained the same.

In two of the four schools (Schools A and C), educators reported that student attitudes toward students with disabilities had improved as a result of inclusion. At Elementary School D, attitudes toward students with disabilities remained about the same as a result of inclusion. Only at Elementary School B did teachers report that other students in general education exhibited improved social behaviors. In the other three schools, the social behaviors of other students remained about the same.

Impact on Statewide Test Performance. The most striking finding was that three of the four elementary schools made a noticeable improvement in average student scores over a period of 4 years. The only exception was at Elementary School D (the inclusion school), where third graders' average scores remained about the same across the same 4 years. In each of these schools, efforts had been made to include students with disabilities for portions of the school

TABLE 4. Elementary Educators' Choices on How and Where to Best Teach Students With Disabilities

	School A		School B		School C		School D		Total
First choice	*n*	%	*n*	%	*n*	%	*n*	%	%
Item 1: In general, I believe students with special education needs are best educated in									
grade-level classes	4	12	2	7	3	11	5	15	12
grade-level classes *with* a special education teacher or assistant in the classroom with them	11	33	9	33	8	30	19	58	39
grade-level classes *with* supportive resource services	11	33	4	15	6	22	5	15	22
mainstreamed classes *with* part-time instruction in special education classes	5	15	8	30	6	22	3	9	18
self-contained, special education classes	0	0	0	0	1	4	1	3	2
separate, special education schools	0	0	0	0	0	0	0	0	0
(could not select a single first choice)	2	6	4	15	3	11	0	0	0
Total	33		27		27		33		120
Item 2: When students with special education needs are taught *in their grade-level classes,* they are best taught by									
including them with all students and having all available adults work with any student needing assistance	24	75	22	82	22	82	26	81	80
having them work with a teacher assistant	5	16	3	4	1	4	1	3	9
having them work with the special educator	3	9	2	15	4	15	5	16	12
Total	32		27		27		32		118

Note. Percentage data were rounded to the nearest whole number. Two interviewees did not respond to Item 2.

day (mainstreaming) and to include (100% of the time) some of them in general education classes. These data provide evidence that the presence of students with disabilities in the general education program had not been deleterious to the test performance of the general education students. This finding was further substantiated by the general impressions of the teachers when interviewed.

Exemptions of Special Education Students From Statewide Testing. Regarding test exemption, there was variation in how the testing of students with disabilities was handled at each of these four elementary schools. Elementary School A tested about the same number of students with disabilities over the 4 years (15% and 16%, respectively). Elementary School B exempted 51% of the students 4 years previously but had reduced this number to 32% in the year of the program evaluation. Elementary School C had a reverse trend: Four years previously, 17% of the students were exempted, and in the year of the program evaluation, 34% were exempted. Also, during this same time period, more self-contained special education classes were added at this school. There was only a slight decrease in exempted students at Elementary School D, from 67% to 60%. The highest percentage of students with disabilities who were exempted from statewide testing was at this school, which was also the only school where all students with disabilities were included 100% of the time.

Since the time of this program evaluation, the school district has implemented a more consistent policy regarding the testing of special education students. Students exempted from the statewide test were given an alternative test. Of the students with disabilities taking the test, only a small number met the requirements for minimal test mastery, *but a few students did pass the test*. This is an important finding, because certain students with disabilities can pass statewide tests and should be given the opportunity to do so. It is better to err on the side of offering the test to students who fail than to miss those students who could pass the test.

Qualitative Responses of Elementary Educators Toward Inclusion. Many of the elementary educators had additional ideas to share about inclusion and the education of students with special education needs. Their comments were generally positive and reflected acceptance of students with disabilities. Several educators indicated that they liked having instructional assistants; valued the special education teachers and speech pathologists; were proud of their programs; felt that the statewide test scores of general education students were not affected; did not like pullout programs; and did like inclusion.

Several teachers also recommended that certain practices and policies be implemented, such as offering more professional development on inclusion; offering opportunities to visit schools that were further along with inclusion; respecting the special challenges presented to the classroom teacher and providing support; making the special education assessment process more relative to classroom applications; providing better training for instructional assistants; catching reading problems earlier; and using mainstreaming rather than inclusion with students with more serious emotional problems.

Secondary Schools

In the second year of the program evaluation, the evaluator visited each of the four secondary schools for the equivalent of 2 to 3 school days (depending on the size of the school). Principals, assistant principals, classroom teachers, special education teachers, program coordinators, department heads, special area teachers, and instructional assistants were interviewed. A structured interview was conducted privately with each individual. The majority of the faculty were interviewed at each school (Middle School E, 61%; Middle School F, 77%; High School G, 47%; and High School H, 77%). Interviewed were 2 principals; 2 interim principals; 2 assistant principals; and 166 educators, including 106 classroom teachers, 53 special education teachers, and 7 instructional assistants. Detailed descriptions of all eight schools and the types of resources each had can be found in more detailed evaluation reports (Idol, 2000; Idol & Griffith, 1998).

Middle School E. Middle School E was implementing a pilot program using flex teams and providing a program for statewide test preparation. There were more students with disabilities involved in this program than in previous years. The flex team identified students who needed help and worked with them in core teams, addressing the statewide test objectives and regrouping students in heterogeneous groups of general education students and students with disabilities. The flex team also provided teacher consultation and student tutorials during the time scheduled for flex team meetings. Moreover, all of the special education staff members were available to classroom teachers as consultants and advisors.

Classroom teachers were supported in this effort by the use of cooperative teaching, a resource class with a supportive curriculum for math, and a resource class with a varied curriculum for other subjects. Other types of volunteer teaming structures included teacher assistance teams; core teams; departmental teams; a campus advisory council; and cadres of people for governing structures from the campus improvement plan covering seven different areas: discipline, curriculum and instruction, technology, school climate, grant writing, parental involvement, and support services and counseling.

Middle School F. Inclusion was offered at this school, and classroom teachers were supported in this effort by the following resources: consulting teaching; cooperative teaching; a curriculum coordinator (full-time; assisted in finding appropriate instructional materials); an instructional coordinator (full-time; provided lessons and advice on instructional

techniques); two classes for behavioral disorders, with some mainstreaming; and a special education clerk (50% time) for recordkeeping. Other types of teaming structures included core teams with no cross teaming and a campus advisory council.

High School G. This high school offered a more traditional special education program, including the following options: cooperative teaching; content mastery resource room (as needed for any student with a curriculum supportive of the general education curriculum); two self-contained classes for students with emotional disturbances; and one self-contained class for the life skills program. Each special education teacher was responsible for conferring with the classroom teachers for assigned students with disabilities. They also went to the Individualized Education Program (IEP) meetings and monitored student schedules and IEPs. Other types of teaming structures included departmental teams and a campus advisory council.

High School H. At this school, classroom teachers were encouraged to include students with disabilities in their classes. The vision for special education was included in the campus improvement plan. The goal was to teach all students in the general education program and bring any student out of the classroom for assistance, whether they were or were not students with disabilities. The principal reported that they were currently in the process of realizing this goal. She also noted that they needed to refine the referral process.

Supportive services included consulting teaching; cooperative teaching; a resource class providing support for the general education curriculum; a life skills program with two teachers; a greenhouse program for special education students; and a work study and career development program. Other types of teaming structures included teacher assistance teams; grade-level teams; departmental teams; a campus advisory committee (including separate action teams); and professional committees including the Algebra team, the English 1 team (additional support for testing and new students), the English 2 team (English end-of-course and statewide tests), and the new teacher team.

Incidence and Types of Disabilities. The number of students with disabilities varied more in the middle schools than in the high schools (see Table 5). Of the middle schools, Middle School E and Middle School F both had 128 students with disabilities. Of the high schools, High School G had 238 students with disabilities, and High School H had 211 students. However, the *percentages* of students with disabilities based on total student enrollment were nearly the same for three schools and slightly lower at High School H. However, this high school had the largest population of students who were at risk for school failure.

The types of students also varied across the four secondary schools. Most of the distributions of types of disabilities were fairly constant across the four schools. An exception was that there were more students with emotional disturbances at the high schools than at the middle schools.

Time Spent in General Education. At Middle School E, teachers serving on flex teams had five of eight classes and larger class sizes. The other core team teachers had approximately 28 students per class. According to the principal, some classes had too many students with disabilities. At Middle School F, the principal reported that 83% of the students with disabilities were enrolled 100% of the time in general education classes, whereas 17% spent some time in general education classes but the majority of their time in special education classes.

TABLE 5. Types of Primary Disabilities of Students with Disabilities at the Four Secondary Schools

	School E		School F		School G		School H		Total
Disability	*n*	%	*n*	%	*n*	%	*n*	%	%
Autism	2	2	1	< 1	1	< 1	0	0	4
Emotional disturbance	9	7	8	6	42	18	33	16	92
Learning disabilities	93	73	96	75	156	66	145	69	490
Mental retardation	4	3	5	4	14	6	22	10	45
Other health impairment	18	14	15	12	23	10	9	4	65
Speech impairment	1	< 1	2	2	2	1	0	0	5
Traumatic brain injury	1	< 1	1	< 1	0	0	2	1	4
Total	128		128		238		211		705

In the past, the special education program at High School G had not been inclusive. Students with disabilities had attended some content area classes and used a content mastery resource program (i.e., a resource room for both general and special education students). Also, the students with disabilities attended a separate resource program. In the year of this program evaluation, there had not been many changes from past practices. This high school had an interim principal, and the actual number of students attending general education classes was not available, although there was a history of using pullout special education programs with no inclusion.

At High School H, the vision for a special education inclusion program was included in the campus improvement plan. The goal was to teach all students in the general education program and to bring any student out of the classroom for assistance and focusing on improved behavior, regardless of whether the student had disabilities. The principal reported that they were currently in the process of actualizing this goal, and this was the reason why they had no incidence figures to report.

Referrals for Special Education Testing. The number of students referred for academic problems was quite different across the four secondary schools. The highest numbers of referrals were at High School G (n = 26) and Middle School E (n = 15), although High School H was considered by the general community to be the school with the most students at risk for school failure. Referrals were much lower at High School H (n = 3) and Middle School F (n = 5). Also, at three schools, some students referred for special education testing did not qualify for special education programs, especially at the middle schools (Middle School F, 60%; Middle School E, 53%; High School G, 23%).

Some possible sources of these differences might be that (a) Middle School F included most of the students with disabilities in classes with a special educator assigned to each core team, providing more support to the teachers, and this school had both an instructional consultant and a curriculum consultant; (b) High School H had two extra support programs for tutoring, counseling, and career development, and an assistant principal was assigned to the development of the consulting teacher program; and (c) both of these schools used consulting teachers and cooperative teachers. In contrast, in Middle School E and High School G (d) more resource programs existed, especially content mastery resource programs; (e) there were only a few experimental classes with cooperative teaching; and (f) all but one of the instructional assistants was assigned to a single student in these two schools.

Attitudes of Secondary Administrators Toward Inclusion. All of the secondary school administrators reported that they were very much in favor of inclusion, both during the year of the program evaluation and in the previous year. The principal at High School H added that she thought there were some cases where full inclusion was not appropriate. However, she said that the theory was good and that the staff should make every effort to include a student. All of these administrators said that their attitudes toward students with disabilities were very supportive. None of the administrators were in favor of inclusion without extra support to the classroom teachers.

Four of the six administrators said that they were good collaborators and worked well with the teachers. The exceptions were (a) the principal at Middle School F, where the most inclusion was practiced, who said he worked with *most* of the teachers but did not work well with some of them, and (b) one principal said that he did not want to rate himself, but that the teachers should be asked. The teachers at this school confirmed that he was perceived as being a good collaborator. When asked how these administrators thought students with disabilities were best educated, one said that it was best to educate them in general education classes. Two administrators thought that it was best for the students to attend grade-level classes with special educators or instructional assistants with them. One of these added that she would like all students to have the skills to be educated in grade-level classes, but that she did not want anyone to be "shortchanged," and, therefore, specialization areas needed to be offered as well. She said the faculty did whatever needed to be done for the students.

Three administrators from two schools chose as a second-best option to educate students with disabilities in grade-level classes with supportive resource services (i.e., with the curriculum matching that of the grade-level classroom and the resource and classroom teacher planning together). Only one principal chose to mainstream students with disabilities only part of the time. He also noted that they should be placed in the general education classes with the required special education Annual Review and Dismissal (ARD) meetings, and that this varied with each student.

Attitudes of Faculty Toward the Principal. The 166 secondary educators interviewed were asked which of two roles (instructional leader or administrative manager) best described their principal. In every school, there were mixed responses; however, the majority of educators at the middle schools (68% and 54%) viewed their principal as being *both* an instructional leader and an administrative manager, whereas 42% of educators thought so at High School H and 34% at High School G. The majority (52%) of educators at High School G viewed their interim principal as an administrative manager only. Overall, across secondary schools, 51% of educators thought that the principal filled both roles.

The large majority of educators at each of the four secondary schools viewed the principal as being very supportive of inclusion (High School H, 85%; Middle School E, 83%; Middle School F, 81%; High School G, 74%). At the schools where the principal was an interim principal, more of the fac-

ulty was unsure of the principal's position (Middle School E, 15%; High School G, 14%). Of all of the educators interviewed, only two individuals at High School H thought that the principal was not supportive of inclusion.

The educators also rated their principals high on being supportive of teachers as professionals. Across schools, the majority said that their principals were very supportive of them (range = 74%–88%). Some exceptions were at High School G, where 24% thought that the new principal was somewhat supportive, compared to only 5% to 16% at the other schools. Only 4 individuals out of 166 educators thought that the principal was *not* supportive of them.

Secondary Educators' Skills in Accommodating Students With Challenging Needs. Teachers and instructional assistants rated themselves in three skill areas related to the effective inclusion of students with disabilities: (a) adaptation of instruction, (b) modification of curriculum, and (c) student discipline and classroom management.

Adaptation of instruction and modification of curriculum. Generally, these secondary educators viewed themselves as being very skilled in adapting instruction and modifying curriculum both for students with disabilities and for those at risk of school failure. Fewer than 20% of educators at each school thought that they needed more information on either type of adaptation. These findings were generally true across the four schools.

At three schools (Middle School E and the two high schools), the most frequent choice for adapting instruction was *applying* the skill, whereas the largest number (37%) of educators at Middle School F said that they were *practicing* the skill; 23% of these teachers also thought that they needed more practice in modifying curricula. However, a combined 49% reported that they either were very skilled or were applying modifications to curricula.

Student discipline and classroom management. Most educators perceived themselves as being skilled in working with either students with disabilities or students at risk for school failure. Across schools, less than 10% of educators thought they needed more information.

Educators' Attitudes Toward Teaching Students With Disabilities. Teachers were asked to report their attitudes toward teaching students with disabilities for the previous year and again for the year in which the program evaluation was conducted by selecting one of four response choices (as listed in the footnotes to Table 3).

Attitudes toward inclusion. Interviewees were asked to rate their attitudes toward inclusion, toward students with disabilities, and toward working collaboratively with other teachers. Based on their recollection, there were few changes from the previous year to the year of the program evaluation in attitudes about inclusion and about students with disabilities across the four secondary schools. Attitudes toward inclusion tended to vary from being willing to accept and try inclusion to being very much in favor of it. The averaged responses were slightly more in favor of inclusion at High School H (with the new pro-inclusion principal) than in the previous year.

Attitudes toward students with disabilities. These attitudes were positive and indicated that most educators across schools were supportive of students with disabilities (see Table 3). There was again little change from the previous year to the year of the program evaluation.

Secondary Educators' Perceptions of Collaboration. Educators' self-perceptions of how well they collaborated with their colleagues were very positive. The averaged responses were highest at Middle School E (where flex teams were used), but all schools averaged between people thinking that others thought of them as being collaborative and people being willing to work with other teachers. Very few responses fell outside of this range (see Table 3).

Secndary Educators' Attitudes Toward Inclusion. The data in Table 6 pinpoint secondary educators' attitudes more precisely. Educators were asked to respond to two items pertaining to *where* and *how* to best teach students with disabilities. Across all four secondary schools, very few educators thought that students with special education needs should be taught in the general education classroom without some form of supportive assistance (an average of 6% across schools thought this was the best option). Yet in contrast, only two individuals thought that students with disabilities should be taught in self-contained special education classes; no one thought that students with disabilities should be educated in separate, special education schools (see Table 5).

The majority of educators in all four schools favored teaching students with disabilities in grade-level classes with a special educator (i.e., a teacher or teacher assistant) with them (45% across schools). The only exception was High School H, where 33% chose this option and 33% chose mainstreamed classes with part-time placement in special education. More educators were choosing the less restrictive placement of including students with disabilities in general education classes with supportive assistance than in previous years.

The responses to the question on how to most effectively teach students with disabilities if they were attending general education classes were compelling. In every school, nearly all secondary educators (77% across schools) thought that the best choice was to include students with disabilities with general education students and to have all available adults work with any student needing assistance. This was similar to the previous program evaluation of elementary schools, where 80% of the educators chose this option.

Impact of Inclusion on Other Students. Secondary educators were asked to rate the impact of the presence of students with disabilities in general on the other students across seven variables (academic skills, course grades, state-

TABLE 6. Secondary Educators' Choices for How and Where to Best Teach Students With Disabilities

First choice	Middle School E		Middle School F		High School G		High School H		Total	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Item 1: In general, I believe students with special education needs are best educated in										
grade-level classes	2	15	2	5	4	11	2	4	10	6
grade-level classes *with* a special education teacher or teacher assistant in the classroom with them	20	50	26	61	12	34	16	33	74	45
grade-level classes *with* supportive resource services	9	23	10	23	11	31	12	26	42	25
mainstreamed classes *with* part-time instruction in special education classes	8	20	5	12	7	20	16	33	36	22
self-contained, special education classes	0	0	0	0	1	3	1	2	2	1
separate, special education schools	1	3	0	0	0	0	0	0	1	1
(could not select a single first choice)	0	0	0	0	0	0	1	1	1	1
Total	40		43		35		48		166	100
Item 2: When students with special education needs are taught *in their grade-level classes,* they are best taught by										
including them with all students and having all available adults work with any student needing assistance	31	78	30	70	28	80	39	81	229	77
having them work with a teacher assistant	3	8	3	7	5	14	5	10	16	10
having them work with the special educator	4	10	9	21	2	6	4	8	19	11
(did not respond)	2	5	1	2	0	0	0	0	3	2
Total	40		43		35		48		166	100

wide test scores, social behaviors, students' attitudes toward students with disabilities, students' attitudes toward inclusion, and parents' attitudes toward inclusion). Specifically, the educators were asked if the other students improved, did about the same, or did worse as a result of being educated together with a student with disabilities. Only a few interviewees (8%) said they did not know about the impact. Across the four secondary schools, the majority of respondents (58%) reported that the other students in the general education classroom remained unaffected by the presence of students with disabilities in their class. About a quarter (24%) thought that the other students improved across the seven variables.

Overall, only 10% of educators across schools responded that the other students were adversely affected by the presence of students with disabilities in the general education classroom. An important exception to this was that when specifically considering the influence of students with disabilities on the *social* behavior of other students, a higher number of respondents thought that the behaviors of all students were worse (range = 16%–33% across schools) when students with disabilities were included in general education. Only 9% or fewer of the respondents at each school thought that other students were worse across the other six variables.

Across schools, 5% to 19% of respondents reported that having students with disabilities in general education classes resulted in an increase in statewide test scores of general education students; 58% to 68% thought that the test scores of general education students remained the same, and 3% to 15% thought that the impact of inclusion on statewide test scores was negative. Thus, the majority of respondents thought that there was no influence on the statewide test scores.

Impact on Statewide Test Performance. The most striking finding was that with one exception, each school made noticeable improvement in average student statewide test scores over a period of 4 years (with built-in controls for test–retest validity). Across the secondary schools, 50% of the time, the statewide test scores had no impact on the overall group results, whether the students with disabilities were included or not included in the data set; 46% of the time, the overall group scores lowered as a result of including the

data for students with disabilities. These lowered percentage scores ranged from a 3- to a 7-point difference, with one exception. There was a 27-point increase in percentage scores for eighth-grade students at Middle School F when the data for students with disabilities were not included.

Overall, the statewide test scores for all students, including students with disabilities, were lower at High School H (ranging from 52% to 69%) than they were at the other schools (Middle School E, 67%–89%; Middle School F, 67%–81%; High School G, 69%–77%.). An exception was the low percentage of eighth-grade students at Middle School F who met all minimum statewide objectives. When the test results *excluded* students with disabilities, the same general pattern was observed. There were lower test results at High School H (ranging from 56% to 73%) than there were at the other schools.

Exemptions of Special Education Students From Statewide Testing. Some students with disabilities in every school were exempted from statewide testing. From 16% to 25% of students with disabilities were exempted at Middle School F across grade levels, compared to only 5% to 10% exempted at Middle School E. Only one 10th-grade student was exempted at High School H, but 11% of the students were exempted at High School G. These data may indicate that there was no consistency in the district policy regarding the exemption of students with disabilities from statewide testing, or they may indicate that the decisions were made on an individual basis by the special education ARD committee, with the decisions varying across schools. These two reasons might also explain the difference in test results between the two high schools.

Qualitative Responses of Educators Toward Inclusion. The secondary teachers were consistently clear in the distinctions they made between academic learning problems and behavior problems, with the academic problems being more acceptable and manageable for them. Some teachers chose the resource room over inclusion as the preferred way to support students with disabilities. Many of them said that more personnel were needed to offer effective inclusion programs. Many of them also indicated that more professional development opportunities were needed. Very few of them had additional comments to make about the statewide test. This may indicate that they were more accepting of the statewide testing of all students.

General Recommendations

The educators indicated that more professional development related to inclusion was needed in the following areas:

- Support teachers in learning to make more appropriate instructional and curricular modifications.
- Support classroom teachers in inclusive classrooms in a variety of ways, including the use of consulting teaching, instructional assistants, cooperative teaching, and teacher assistance teams.
- Provide more professional development to instructional assistants.
- Visit schools where inclusion is practiced.
- Use the same sound disciplinary practices regardless of whether the student is a student with disabilities or a student who is at risk for school failure.
- Use cooperative, heterogeneous learning groups.
- Use reading tutor programs. An example of this was the reading tutorial program in the library at Elementary School D.

Regarding statewide testing, educators made the following suggestions:

- At the local level, statewide test data for students with disabilities should be reported and examined separately from those of the general education students. The findings from this program evaluation showed that there was little impact from such a measure, but this recommendation may help to alleviate the fears of classroom teachers.
- More students with disabilities should be given the opportunity to prepare for and be given the statewide test.

Recommendations regarding policies and practices included the following:

- Reconsider the viability of self-contained classes, as only a small minority favored self-contained classes as the first choice for optimal special education service delivery.
- Consider mainstreaming instead of inclusion for certain students with serious behavioral and emotional problems.
- Consider reassigning all students with disabilities to their neighborhood schools for a more equitable distribution of types of disabilities across schools.
- Closely monitor the referrals to special education.

- Ensure consistency in the curriculum offered in the special and general education programs, as some resource programs used a varied curriculum that was independent of the general education program and was determined by the special education staff.
- Examine how speech–language services are offered. Some of this instruction, particularly language intervention, could be offered in the general education program, with the speech–language pathologist serving as a consulting teacher.
- Make decisions to include a student with disabilities in general education on a child-by-child basis, as done at Elementary School C.
- Do not place special education consulting and cooperative teachers in the position of evaluating the inclusion program. This can impede the collaborative relationship between the classroom teachers and the special education teachers.
- Use clear and open communication with all of the students in the inclusive class about why some students need more assistance, whether they are in the classroom full-time or leaving the classroom for resource assistance. This same communication should occur when instructional or curricular modifications are made for some students and not for others.
- Make sure that the entire school staff are well versed in all three ways of using human resources—consulting teaching, cooperative teaching, and instructional assistants.
- Ensure that special education teachers work more closely with the principal and with their supervisors in determining how best to use their professional time assignments. Both classroom and special education teachers reported that the special education teachers were spending too much time with the paperwork for the ARD meetings and not enough time working with students.

Discussion

Administrative Support

In general, the administrators in these eight schools were doing a good job of working with and supporting the teachers, as evidenced by the teachers' positive perception of them. Teachers' perceptions of a lack of principal support can be a primary reason why change regarding inclusion does not always take place. In this program evaluation, many teachers viewed their principal as being supportive of them and as being an instructional leader. In schools where this was not the case, professional development and support of principals in assuming the instructional leadership role could be beneficial.

In the past decade, principals' leadership styles have gradually changed from serving exclusively as administrative managers to combining management with the role of instructional leaders. In this program evaluation, instructional leadership meant that the principal was actively involved with teachers in making curricular decisions, and was spending time in classrooms as a leader in shaping the development of programs. In the secondary schools, there was an indication that the principals needed to improve the balance between being an instructional leader and being an administrative manager. It is the instructional leadership role that will help the teachers develop more advanced skills in teaching a multilayered curriculum and better attending to individual learning needs without diminishing curricular and student performance standards.

It is also recommended that principals visit classrooms and ask teachers what they realistically need to better include all students. Teachers need to work together more closely in determining how best to use human resources in preparing the special education paperwork. Some special education teachers were overworked on this task, and some of them were abusing the task by spending more time on the paperwork than their colleagues believed was required.

Instructional leadership is tied to supporting faculty in making changes, especially those related to curriculum and instruction. Furthermore, the attitudes of the administrators in this program evaluation were strongly in favor of the inclusion of students with disabilities; to some degree, administrators were more supportive than some of the teachers were, although most teachers viewed the general education experience for students with disabilities as being both viable and positive.

Attitude Toward Inclusion

Overall, there was a trend among the participating educators of moving more and more toward the inclusion of students with disabilities in the general education classes. Few teachers chose self-contained, special education classes as the preferred choice for service delivery. All of the administrators thought that inclusion would be best implemented if extra available adults were provided and if these adults could work with any student needing assistance, not just with students with disabilities.

Educators also had generally favorable impressions of the impact of students with disabilities on other students in their classes. A striking exception to this was the many times they mentioned that everything changed when a student had

serious behavior problems and was disruptive to the class. They had this reaction whether the student had disabilities or not. Proponents of inclusion should determine if teacher concerns about disruptive students might not be overshadowing those teachers' attitudes toward inclusion. Teachers should be encouraged to explore practical means of coping with disruptive student behaviors. For example, at Elementary School C, in classes where mainstreaming of students with emotional disturbances was occurring, the special education teachers, instructional assistants, and classroom teachers wore electronic beepers so that the classroom teacher could call for assistance if student behavior became disruptive before it escalated.

Another point to consider is whether to reassign all students with disabilities to their neighborhood schools. This would reduce the number of highly disruptive students in a single school. It would also make it considerably easier to include a smaller number of students with mild retardation in various classes. The students with disabilities could become more a part of their schools, and students with mild disabilities might be noticed less for their differences.

Service Delivery Options

It is recommended that all staff be guided to explore a variety of service delivery options other than just resource programs, cooperative teaching, or instructional assistants. Two other viable options are consulting teaching and using some form of teacher assistance teams.

Many educators still prefer the resource room model because they believe that the only way to help a student with disabilities is to remove the student from the general education classroom for tutorial assistance. It is recommended that educators closely examine the historical special education efficacy data for resource room service delivery. Some studies have shown equitable performance in general education classes; other studies showed minimal or no change in academic performance. Related studies and research reviews include Budoff and Gottlieb (1976); Cole, Mills, Dale, and Jenkins (1991); Glavin, Quay, Annesley, and Werry (1971); Hocutt (1996); Idol (1993); Madden and Slavin (1983); and Baker, Wang, and Walberg (1995). At best, when resource programs are used, they should be supportive resource rooms where the curriculum matches or supports that used in the general education program and where the resource room teacher and the classroom teacher work together in planning and monitoring the student's entire academic program. The two collaborating teachers should develop a plan to include the student with disabilities in the general education classroom in the future.

Only a very small fraction of the educators interviewed favored self-contained classes as their first choice for special education service delivery. Yet in the participating schools, there were several self-contained classes. It is recommended that this type of discrepancy be carefully considered. Perhaps some of the students in these self-contained classes could be educated just as well in less restrictive environments.

Visible efforts were being made to educate students with disabilities in general education programs. For example, cooperative teaching (i.e., special education teacher in the general education classroom) was used in every school. The majority of the educators interviewed liked the cooperative teaching approach. A concern was that most classroom teachers said that they needed a cooperative teacher; yet ordinarily this is not financially possible.

In some of the schools studied, special education teachers offered consultation services *in addition to their full assignment* as a direct instruction teacher. Formal time as a classroom consultant should be provided where special education teachers are available to any inclusion teacher, rather than simply expecting the consultation to occur without a formal time assignment. This time should be recorded as indirect special education service delivery via consultation on IEPs and in school records.

The proper use of instructional assistants should be examined more closely. The instructional assistants need to be better trained, and the classroom teachers need more ideas on how to use them more effectively and efficiently. In this program evaluation, most educators preferred to provide extra assistance to any student needing help. Assigning one assistant to a single student may result in poor use of resources and create an overreliance on assistance for the student with disabilities; thus, emphasis should be placed on providing the necessary assistance to any student in an inclusion classroom.

Classroom Management and Student Discipline

Most educators indicated they were using good classroom management and student discipline strategies. Some indicated that they needed to improve in this area. An important implication of sound classroom management and student discipline practices in inclusive schools is that the same disciplinary practices used schoolwide should also be used in the special education programs, regardless of whether the student is a student with disabilities or a student at risk for school failure.

Instructional Modifications and Strategies

As teachers move toward using more inclusive classrooms, they often discover that many of the same strategies that work with students who are at risk for school failure also work for certain students with disabilities and vice versa. This realization was evident in the participating schools. As educators move toward inclusion, it is important to monitor how many other students in their classroom are benefiting from the strategies that the special education consulting teachers and the classroom teachers developed for students with disabili-

ties. These data could help support the efficacy of using the consulting teacher approach, in that certain other students who are experiencing school failure are expected to benefit from the same strategies developed for students with disabilities. There was evidence of this happening at Elementary School D, in particular, because this school had a consulting teacher; but examples of it were found at the other schools as well. This generalization of benefits often happens in mainstreamed classes and with special education teachers who consult informally with classroom teachers even though it is not a formal part of their job. This is an indicator that consulting teaching is a viable option and could be more formally used. This is particularly so because the exclusive use of cooperative teaching means that the special educator is able to work in a limited number of classrooms due to time constraints.

In general, secondary educators reported themselves as being proficient in making both instructional and curricular modifications, managing classrooms, and disciplining students. There were a few teachers in each school who needed more of this type of preparation; as one might expect, they tended to be the less experienced teachers. The most efficient and cost-effective way to support the less experienced or less adept teachers would be to assign them to a mentor teacher who is skilled in these areas. Middle School E had an excellent discipline plan, in which the same plan and the same set of behavior standards were applied to all students, whether the students had disabilities or not. This was also the school with the highest statewide test scores. This may be an indication that students have to be prepared to learn before they can learn.

Professional Development

The educators interviewed indicated that more professional development related to inclusion was needed. The professional development topics should include making appropriate instructional and curricular modifications. Also, more information and training should be made available on how to effectively support teachers of inclusive classrooms in a variety of ways, including consulting teaching, cooperative teaching, instructional assistants, and teacher assistance teams. Some of the educators also indicated that more professional development was needed for the instructional assistants. Some educators who prefer the more traditional methods (e.g., pullout service delivery) might benefit from visiting schools where inclusion is practiced.

Professional development was also needed in the use of cooperative, heterogeneous learning groups. Good examples of cooperative learning groups were found at Elementary School B in multi-age classes.The use of reading tutor programs is another approach that has helped some schools that were heavily dependent on the resource room model in moving to more inclusive classrooms. Elementary School D, a full inclusion school, provided such a program.

Impact on Statewide Testing

One of the biggest concerns of many educators and the general public is the possible adverse effect that the presence of students with disabilities in the general education classroom might have on the statewide testing results of other students. In this program evaluation, most of the teachers interviewed correctly predicted that the class average statewide test scores would not be affected. In fact, the test performance of all students was not greatly affected by including the special education students' data in the compilation of overall test results; yet there were some exceptions. It is recommended that the statewide testing data for students with disabilities be examined and reported separately from those of the general education students at the local level. Compiled data for all students taking the statewide test may have to be reported at the state level, but within the school district, these data could be separated into two categories (general education and special education), monitored, and reported back to the schools. This practice would encourage classroom teachers to open their classroom doors to students with disabilities. It is also important to track these data over time, compiling the scores of students with and without disabilities both separately and as aggregated scores.

As these data are collected, a district policy should be developed on whether to exempt special education students from the testing process. It is recommended that students who are participating in the academic curriculum in the general education program be included in the statewide testing process. Exempted students should include only students who are being included in general education for social development but are not capable of intellectually mastering an academic curriculum. Also, more students with disabilities should be given the opportunity to practice and prepare for eventually being given the statewide test. Over time, some students may be able to master the test, and this practice could result in teachers' having higher expectations for students with disabilities.

Referrals to Special Education

As a movement is made toward developing more inclusive schools, it is important to monitor the referrals to special education. Initially, referrals may increase because teachers who are new to inclusion may be overly concerned about having students with disabilities in their classes. As teachers become more accustomed to teaching students at various performance levels, the referrals should decline, particularly if the roles of the special education teachers are reconceptualized to give maximum support to the classroom teacher.

It would also be helpful to examine how speech–language services are offered. Some of this instruction—particularly language intervention—could be offered in the general education program, with the speech–language therapist serving as a consulting teacher, and could reduce referrals to special education.

For schools in the beginning stages of exploring inclusion, it is instructive to follow the example set at Elementary School C. At this school, decisions to include a student with disabilities in general education were made on a child-by-child basis. For schools that are further along, the full inclusion approach, as exemplified at Elementary School D, would be a good model to follow.

As teachers have more practice with inclusion, their acceptance and tolerance of students with disabilities in their classrooms seems to improve. They also become more skilled in delivering lessons that accommodate students at various levels of learning and performance. Teachers should be encouraged to accept that not all students in a classroom will be working at exactly the same academic level in any classroom, whether there are students with disabilities attending or not. The usual range of student achievement levels should be addressed by more use of multilayered lessons (Idol, 1997) and differentiated curricula.

Summary

Overall, the findings of these interviews strongly support the practice of including students with special education challenges in general education programs. Several key factors that were explored in this program evaluation can guide educators in more fully activating the full potential of inclusion and the least restrictive placement concept of special education. ■

LORNA IDOL, PhD, is a professor of literacy education at Concordia University at Austin. Dr. Idol is a consultant to education agencies on collaboration and inclusion in the schools and is also a licensed mediator for dispute resolutions using the collaborative problem-solving method. Address: Lorna Idol, College of Education, 208 Texas Hall, Concordia University at Austin, 3400 Interstate Highway 35 North, Austin, TX 78705-2799; e-mail: lorna.idol@concordia.edu

AUTHOR'S NOTES

1. This report is the result of the compilation of two evaluation reports conducted by the author as a consultant to a large, metropolitan school district in the southwestern United States through the district Office of Program Evaluation.
2. Julia Griffith assisted with the compilation of the final report for the program evaluation of the elementary schools.

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