Inclusion or Pull-Out: Which Do Students Prefer?

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Abstract

The purpose of this study was to better understand students' perceptions of and preferences for inclusion or pull-out service delivery models. Thirty-two students with and without learning disabilities who had participated in both models during the past 2 or 3 years were interviewed individually. Key questions assessed their perceptions of which model was most conducive to academic learning and which was most likely to yield social benefits, and the reasons for their beliefs. Results indicated that students' views varied. Overall, more children identified pull-out as the model of choice, but many children were confident that inclusion was meeting their academic and social needs. We interpret the results of this study as providing support for maintaining a continuum of service delivery options and for considering the placement of each child individually, based on his or her unique needs.

Many professionals in education contend that providing support services for students with learning disabilities (LD) in their general education classrooms is preferable to providing assistance in resource rooms. Yet, the move toward the full-time inclusion of students with disabilities in general *education classrooms has not been* without controversy (Davis, 1989; Fuchs & Fuchs, 1995; Fuchs, Fuchs, & Fernstrom, 1993; Gartner & Lipsky, 1987; Roberts & Mather, 1995). Proponents such as Sapon-Shevin argue that inclusive classrooms are more like the real world that students with disabilities will live in when they finish school (O'Neil, 1994/1995). Others assert that no separate knowledge base exists for teaching students with disabilities and that pull-out programs or self-contained classrooms have failed to bring about desired benefits (Wang, Reynolds, & Walberg, 1994/1995). Full-inclusionists describe many possible benefits of inclusive classrooms for students with LD. Self-esteem and feelings of self-worth are believed to increase because students with disabilities are less likely to be identified as "slow" by their peers or to feel stig-

matized (Baker, Wang, & Walberg, 1994/1995; Banerji & Dailey, 1995). By remaining in the general education classroom, students with disabilities have more time to make and sustain friendships with their nondisabled peers, and enjoy increased instructional time, as they are not traveling from the general education classroom *to the resource room.* Students do not miss out on key content previously covered during their absence, and the assistance provided by the special education teacher in the inclusive classroom is more directly related to the general education curriculum (Stainback & Stainback, 1992). Also, inclusion requires general educators to become more responsible for students with special needs, rather than being able to "dump" them in special education classrooms.

Others express concerns about whether inclusion is the most appropriate service delivery option for all students, and emphasize the importance of maintaining a continuum of services (Fuchs & Fuchs, 1994; Kauffman, 1993; Roberts & Mather, 1995; Vaughn & Schumm, 1995; Zigmond, 1995). Individualized instruction, as mandated by P.L. 94-142, typically

does not occur in general education classrooms (Zigmond & Baker, 1994), and many teachers make few or no adaptations for students with LD (Baker & Zigmond, 1990; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993). General education teachers often feel inadequately prepared to teach students with disabilities (Conway & Gow, 1988; Gersten, Walker, & Darch, 1988; Schumm & Vaughn, 1992). And although social acceptance is purported *to be a benefit of full-time inclusion,* increased friendships may not be the outcome for many students with LD; frequently they are identified as the least popular or most rejected students in their classrooms (Bryan & Bryan, 1978; Gresham, 1984; Vaughn, Elbaum, & Schumm, in press). Furthermore, some worry that the performance of students without learning disabilities will decline because students with disabilities take up too much of the teacher's time (Shanker, 1994/1995; Vaughn, Schumm, Jallad, & Saumell, in press).

While the controversy continues, researchers proceed to examine the academic and social benefits of inclusive classrooms for students with disabilities (e.g., Baker, Wang, & Walberg,

1994/1995; Baker & Zigmond, 1990; Jenkins & Heinen, 1989; Salisbury, Gallucci, Palombaro, & Peck, 1995; Vaughn, Elbaum, & Schumm, in press; Zigmond & Baker, 1995). However, students' views and their understanding of the educational model in which they participate have received only preliminary investigation (Guterman, 1995; Jenkins & Heinen, 1989; Vaughn & Bos, 1987; Vaughn, Schumm, Klingner, & Saumell, 1995). We believe that students' perceptions need to be studied because they directly (and indirectly) influence educators' decisions about placement, curriculum, and teachers' roles (Vaughn, Schumm, Niarhos, & Daugherty, 1993; Vaughn, Schumm, Niarhos, & Gordon, 1993). Furthermore, as the recipients of services in inclusive classrooms, students are in a position to judge firsthand the effectiveness of the partnership between general and special education.

Only a few studies have specifically focused on students' perceptions of their placement setting (Jenkins & Heinen, 1989; Pugach & Wesson, 1995; Vaughn & Bos, 1987; Wang & Birch, 1984). Vaughn and Bos investigated general and special education students' perceptions of the special education resource room, but not their perceptions of the general education classroom. Results revealed that the majority of students liked the resource room environment as a first or second choice, with the exception of primary-grade students with LD, who demonstrated more dislike toward the resource room. Students with and without disabilities generally viewed the resource classroom in a positive light.

To determine the preferences of elementary-aged students concerning service delivery, Jenkins and Heinen (1989) interviewed more than 600 general and special education students receiving educational services in pull-out and in-class programs. This study was one of the first that specifically questioned students about the setting in which they would prefer to receive academic assistance. Results revealed

that the majority of students in general and special education preferred pull-out programs over in-class programs. The authors inferred that students' preferences were significantly influenced by their current placement. According to Jenkins and Heinen (1989), students' primary rationale for this preference stemmed from the notion that "the specialist can give more or better help in a pull-out model, and that a pull-out is less embarrassing than having a specialist come into the classroom" (p. 519). Another possible explanation for this view is that the majority of students with LD have a marked history of receiving most special services in the pull-out model rather than in inclusive classrooms and are more familiar with that model.

Guterman (1995) interviewed nine high school students with LD who had been provided special education in separate categorical classrooms. The initial reaction of these students when they were told they were going to be removed from general education and placed in special education was negative. However, ultimately the students concluded that special education was the best way to meet their needs, considering the unresponsiveness of general education.

A recent investigation by Pugach and Wesson (1995) assessed the views of students and teachers in an inclusive setting that comprised general education students and students with LD. The purpose of their investigation was to solicit students' perceptions of their year-long experience in an inclusive classroom. From individual interviews with the students and teachers emerged three general themes that supported the view that inclusive classrooms are beneficial: positive student attitudes toward themselves and peers, an acceptance of giving and receiving help (referred to as *cooperative learning*), and positive images of all teachers. Interestingly, Pugach and Wesson reported that the students in the inclusive classroom viewed the special education teacher not as providing help to a specific group of

youngsters but as a "helper" to the general classroom teacher. The students in this study had not also participated in a resource model and therefore were not comparing an inclusion class with a resource class.

With the present study we sought to add to existing research by investigating the perceptions and viewpoints of students with and without LD regarding two types of educational models: inclusion and resource room. This study differed from previous research in that we assessed students' views of which model was most conducive to academic learning and which was most likely to yield social benefits, and the reasons for their beliefs. Also, all students who participated in the study had participated in both models during the past 2 or 3 years.

Method

Participants

Individually interviewed were 32 students (16 with LD and 16 without LD; 4 fourth graders, 14 fifth graders, and 14 sixth graders) who had spent at least 1 academic year each in classrooms participating in pull-out and inclusion special education service delivery models. All students were from the same medium-sized (937 students) urban school. Approximately 75% of the school's population received free or reduced lunch. The school mean percentile score on the most recent administration of the Stanford Achievement Test (SAT; Psychological Corp., 1991) for reading comprehension was 38.

Selection of Participants. Our initial pool consisted of all students for whom we had already obtained permission to participate in a larger study examining the social and academic effects of inclusion (Klingner, Vaughn, Schumm, & Hughes, in press; Vaughn & Schumm, 1995; Vaughn, et al., in press). This pool represented 90 out of a total of 112 students in three

classes (Grades 4, 5, and 6) and included all students with LD in these classes. From this group, we identified those students with and without LD who had spent at least 1 full year in a general education class that relied exclusively on the pull-out model for providing special education services and at least one full year in a general education class that was part of an inclusion model. All students with LD who fit this criterion were included in our final sample. A matching number of students without LD were randomly selected from the remaining students at each grade level.

All students with LD met school district criteria for classification as LD. One student with LD was also considered to be limited in English proficiency (LEP). Another student with LD was also visually impaired. For further descriptive information on the sample, see Table 1.

After completing the interviews, we selected a subgroup of our sample to be profiled. This subgroup included four students with LD (one who preferred inclusion, another who preferred pull-out, one with limited English proficiency, and one who was visually impaired) and two students without LD (one average-achieving student and one high-achieving student). The student with LD who preferred inclusion, the student with LD who preferred pull-out, the average-achieving student, and the high-achieving student were all selected to be profiled on the basis of two criteria:

1. Was this student representative of other students in the same overall category (given that there was variation within these categories, with no two students responding exactly the same to all of the questions)?

2. Did this student provide "rich" explanations for responding a particular way, thus contributing to a descriptive and revealing portrayal?

The LEP student with LD and the student with LD who was visually impaired were included because they both received additional services (English-as-a-second-language instruction in the first case and special education services for the visually impaired in the second case), thus making their two cases unique.

Overview of the Inclusion Program. For the past 2 years, this school has implemented an inclusion model for providing special education services. Students with disabilities who are identified as likely to benefit from full-time inclusion in a general education classroom are placed at the age-appropriate grade level. The vast majority of students with LD are in Grades 3 through 6. Two special education teachers are assigned to three general education teachers each. Depending on the number of students with LD per class (ranging from one to eight), these teachers spend from 30 to 90 minutes a day co-teaching in each class. In addition, they co-plan with each general education teacher for a minimum of 30 minutes per week. The school has a third special education teacher who provides pull-out services in a resource room for students for whom the inclusion model is not considered to be the most appropriate placement. Students with more severe disabilities who are determined to require special day-class placement attend another elementary school.

This school implements what we consider to be "responsible inclusion" for students with LD (Vaughn & Schumm, 1995). Specific time is allocated for collaboration and planning between general and special education teachers, professional development workshops are provided for all teachers, and students' needs are considered first and foremost in any placement decision. Also, teachers chose to participate in the program, adequate resources are provided for inclusion classrooms (including additional computers), the model was developed at the school-based level, and the ser-

TABLE 1
Descriptive Information for Students With and Without LD

	With LD	Without LD
Grade		
4	2	2
5	7	7
6	7	7
Gender		
Male	12	9
Female	4	7
WISC-R IQ		
M	98	—
SD	12	—
SAT Reading		
M	22	53
SD	15	28
SAT Math Computation		
M	35	73
SD	21	32
Lunch		
No price reduction	5	5
Free or reduced	11	11

Note. No WISC-R IQ scores were available for the students without LD. WISC-R = Wechsler Intelligence Scale for Children–Revised; SD = Standard Deviation; SAT = Stanford Achievement Test.

vice delivery model is continuously evaluated.

The Pull-Out Model. Before the inclusion model, the pull-out model was the only service delivery option available at this school. At that time there were two resource room teachers, one of whom is currently teaching in the inclusion model. (In fact, about half of the students with LD in our sample have received instruction from this teacher as part of both the pull-out and the inclusion model.) Students participating in the pull-out model leave their general education classrooms every day at a designated time (usually during language arts, science, or social studies) and receive from 30 to 90 minutes of language arts and/or mathematics instruction in groups ranging from 4 to 20 students.

Instrument

We designed the *Students' Views of Inclusion Interview* for the purposes of this study (see the Appendix for a copy of the interview). To develop the interview, each member of our research team contributed a list of potential questions. The research committee then discussed the merits of each question and compiled a tentative list that reflected what each researcher deemed to be important. This first draft interview was piloted with six students not part of our participant pool, and then revised with the deletion, rewording, and adding of questions. The second draft interview was also piloted, this time with 12 students not part of the participant pool. The second draft was also critiqued by three independent researchers (not otherwise associated with this project), all considered to be experts in the interview process. On the basis of feedback from these experts, as well as our experiences piloting the second draft, we produced a final interview.

Questions were of various types. Some (particularly those at the beginning of the interview) were intentionally open-ended; others were struc-

tured and asked students to choose between options. Most questions included follow-up probes that asked students to provide rationales for their responses. The purpose of the first questions (1, 2, 3, and 4) was to ascertain students' perceptions of the role of their LD teacher (in the inclusion model). We considered the next three questions to be the most important of the interview (5, 6, and 7); these required students to choose between the inclusion and resource models when considering various factors. The next two questions (8 and 9) were included to provide a general indicator of students' satisfaction with their current placement in an inclusion classroom. The remaining questions (10, 11, and 12) asked students about grouping configurations and interaction patterns common in their classrooms, and were included to provide further insight into the internal dynamics affecting the inclusion classrooms at this school.

To avoid confusion with terms that may have been meaningful to the researchers but not the students, as well as to avoid providing information that the students may not have already known (i.e., that one of their two classroom teachers was in fact a special education teacher), the actual names of teachers were used in all applicable questions instead of the terms *LD teacher* or *general education teacher*. Furthermore, we referred to students with LD as *students who need extra help* rather than specifying the term *LD*.

Procedure

Students were interviewed during the last few weeks of the school year (in late May or early June) by one of six researchers trained in the interview process. Interviewers followed the basic principles of interviewing outlined by Bogdan and Biklen (1992): (a) Establish a rapport with participants prior to beginning the interview, through small talk; (b) inform participants of the purpose of the interview; (c) assure participants that their responses will be reported anonymously;

(d) communicate personal interest in what participants have to say by being attentive and using appropriate facial expressions; (e) ask for clarification when a response is not clear; (f) avoid asking follow-up questions that can be answered with "yes" or "no"; and (g) listen carefully. During each interview, the researcher recorded the student's responses on an interview protocol. Interviews were tape-recorded, and tapes were audio-checked to assure that the written records of responses were accurate. Each interview lasted 20 to 30 minutes.

Coding Procedures. To establish codes for the interview data, two researchers independently read every interview. For each question, the researchers searched the responses for common ideas and themes (Strauss & Corbin, 1990) and used those to develop a list of categories. Next, the researchers met to negotiate a mutual set of categories. Using this coding scheme, they then tabulated all responses within the respective categories and recorded representative quotes for each. Intercoder agreement was defined as the number of hits (both researchers coded the student's response in the same category) over the total number of coded responses. Intercoder agreement was calculated to be .89.

Results

We present our results in two ways: by question and by student. First we report the tabulated and themed responses to interview questions, then we depict the profiles of a few representative students with and without LD, and a student with LD who was visually impaired.

Responses to Questions

Table 2 summarizes students' responses to selected questions by group (LD and non-LD), listing the frequency with which students answered in a

particular way to each. In the paragraphs that follow, we delineate the rationales students provided for their answers. The numbers in parentheses following quotes indicate how many students gave this or a similar response.

1. What does the LD teacher do? The majority of students perceived that the LD teacher came to their rooms to help students and to teach. Many mentioned specific subjects or activities with which the LD teacher helped, for example, "Like if we have writing, and we need something, like spelling, she helps us spell it" (LD). Yet a subset saw the LD teacher primarily in the role of teacher's assistant, for example, "She helps out Mr. C. and does everything he does" (non-LD).

2. Who does the LD teacher help? All of the non-LD students viewed the LD teacher as potentially helping them— they all stated that the LD teacher helped or taught everyone in the class, e.g., "Sometimes when she comes to our room she works with the people that need help. And sometimes she works with the whole class like when she is reading a story or she is explaining something to us. But usually she helps kids individually, but not like she spends all her time with one kid. She takes one kid, and then helps another one, like that" (non-LD). Most of the students with LD also supposed that the LD teacher was there to help everyone, although a subset of this group (5) mentioned only "students who need extra help."

3. Why do you have two teachers in your class? None of the non-LD students knew that the LD teacher was a special education teacher, and only five of the students with LD specified this. Students speculated about a variety of other explanations. Six students said that the LD teacher was there to help the general education teacher, for example, "in case Ms. R. has to go to a meeting" (non-LD) or "if Mr. C. forgets something, she reminds him"

TABLE 2
Summary of Students' Responses by Group (LD or Non-LD)

Question	Response	LD	Non-LD
1. What does the LD teacher do?	Helps the general ed. teacher	3	4
	Helps students	11	5
	Teaches	1	3
	Combination of the above	1	4
2. Who does the LD teacher work with?	Everyone in the class	3	6
	Everyone *and* students who need extra help	7	9
	Students who need extra help	5	0
3. Why do you have two teachers in your class?	One is the LD teacher	5	0
	Second one helps the teacher	1	5
	More help for students	3	6
	I don't know/Other (unrelated guesses)	7	5
4. How do you like having two teachers?	I like it	16	16
5. Which do you like best, pull-out or inclusion?	Pull-out	8	10
	Inclusion	6	3
	Both ways	2	3
6. Which way helps kids learn better?	Pull-out	9	6
	Inclusion	5	5
	Both ways	2	2
7. Which way helps kids have more friends?	Pull-out	2	2
	Inclusion	9	7
	Both ways	5	5
8. Need more help with schoolwork?	No	12	13
	Yes	4	3
9. Favorite person to teach you?	LD teacher	2	2
	General ed. teacher	3	8
	Any teacher	2	0
	Student	8	4
11. Do you like to teach other students?	No	0	1
	Yes	16	15
12. Do you like it when other students teach you?	No	0	2
	Yes	16	14

Note. Question 10 is not included in this table because it follows a different format.

(non-LD). Nine students indicated that the LD teacher was there to help students (a few of these explanations were close to the real reason), for example, "because there's too many students and they need two teachers when someone raises their hand and they need help" (non-LD). Yet almost half of the students (both LD and non-LD) seemed to have no idea why they had two teachers, and they offered some amusing guesses, for example, "She came for a visit and just stayed" (LD), "Because we are the best class" (2 LD), "Because we are involved with UM [the university]" (2 LD), "Because the principal told her to" (non-LD), and "Because it's her first year here and she is a new teacher" (non-LD).

4. How do you like having more than one teacher? All students said they liked having more than one teacher in their class. When asked why, 19 students responded that they liked being able to get more help, for example, "If one is busy the other one can help."

5. Which way do you like best, when kids who need extra help leave the classroom to get special help (pull-out), or when they stay and get extra help in your classroom (inclusion)? Of the 32 students, 18 said they preferred the pull-out model. Reasons given by the students with LD were as follows: They believed they could get more help in a resource room (4) (e.g, "because there are less kids"); the work was easier in the resource room (2); and it was too noisy in the general education classroom (1). Non-LD students explained that they preferred the pull-out model because their class was not as noisy when some students left, enabling them to concentrate better (6), and they believed that students with LD could get more help in a resource room (4). One non-LD student complained, "They interrupt me and ask me when I'm finished with my work to help them."

Nine students favored the inclusion model. The six students with LD all asserted that they were able to get enough help in their general education class, and added other reasons

for preferring inclusion (e.g., "So I don't miss anything," "You don't waste time going somewhere," and "In Ms. M.'s class we played games and in a normal class we don't"). The three non-LD students who favored inclusion explained their reasons: "Their classmates help them and we all learn more" ; "The other teacher may not know what that student needs help in"; "Cuz we are, like, all together." Five students stated that they liked it both ways and did not really care which type of program they were in.

6. Which way helps kids learn better? The 15 students who believed that the pull-out model is preferable for helping students learn offered many justifications in support of this view. Students with LD liked that in a resource room there were less people (2), they could concentrate better (2), they learned in an easier way (2), "they test you to see what you most need help with" (1), and "you are with another group of kids that need help just like you and you don't feel bad" (1). Non-LD students explained that in a resource room, students with LD could concentrate better (4), learned what they needed (1), and got more help (1).

The students with LD who believed that the inclusion model was better for helping students learn explained that in the general education classroom, they learned more and worked harder (4) and could get more help (1) (because "everyone that leaves doesn't know that much either so they can't really help you"). The non-LD students reasoned that students with LD learned more in the general education class because they could get help with the same assignment the rest of the class was working on, as compared with a pull-out class, where the teacher might not teach "the same stuff we are learning" (3). Also, "in a separate class they only have one teacher, but in an inclusion class they have two" (1).

Five students believed that both ways helped students, and which was best depended on the student. As one

non-LD student explained, "If the other students in the class could help him then he should stay but if it is real serious then I think he should go and get special help."

7. Which way helps kids have more friends? Only four students believed that going to a resource room was preferable with regard to making friends. All of these students explained that in the resource room "you get to meet kids from different classes."

The majority believed that staying in the general education classroom helped kids have more friends. Students with and without LD agreed tha in the general education class ther were more kids (4 LD, 2 non-LD), an the students with LD had more opportunities to get to know the other students in the class (4 LD, 3 non-LD), because "you get more attention from the other kids" (LD) and "they can become friends when they are helping" (non-LD). One student with LD offered "proof rather than an explanation: "Back in the fourth grade I only had two friends and now I got, like, a whole mess of friends."

Ten students thought that both models helped students have friends, for example, "It doesn't matter; you have friends either way."

8. Do you need more help with your schoolwork than you are getting? "No," said 25 students in response to this question. Most of those students who would like a little more assistance specified particular subjects (e.g, math, science, reading).

9. Who is your favorite person to teach you? Four students (2 LD, 2 non-LD) indicated that the LD teacher was their favorite person to teach them, because "she explains it easier" (LD), and "she is funner" (non-LD). It is noteworthy that the LD teacher received two non-LD votes in these inclusion classrooms.

Ten students unequivocally preferred the general education teacher, because "she's the teacher" (LD), "she knows more" (LD), and "she explains things" (non-LD). Two students said "any teacher." One non-LD student liked to receive help from either the

teacher or a student "that I can trust to know the right answer."

Perhaps the most interesting finding was that 12 students named another student as their favorite person to teach them (8 LD, 4 non-LD). Reasons varied, from "they are smart (or gifted, or get straight A's)" (3 LD) to "I've known him/her for a long time" (3 LD, 1 non-LD) to "he takes more time with me" (1 LD, 1 non-LD). As one fourth grader explained it, "When he [the other student] helps you, he stays focused on you, and when people try to talk to him when he's helping you he says, 'Wait until later'" (non-LD).

10. *When you have reading or language arts, you might work alone, with a partner, in a small group, or with the whole class. Which way helps you the most? Which way helps a lot, but not as much? Which way helps the least?* Students with and without LD agreed that they strongly preferred to work with other students in pairs or small groups rather than with the whole class or alone. Small groups clearly ranked as students' first choice (with 17 first-place votes). Partners came in second, whole class ranked third, and working alone placed last (with 18 fourth-place votes). Students believed that they were able to get more help when working with others, for example, "when somebody doesn't know something, one person helps," and that working alone is boring.

11. *Do you like to teach other students when you know something they don't? and 12. Do you like it when other students teach you?* Overwhelmingly, these students liked to help and be helped by other students. All of the students with LD answered "yes" to both of these questions. Only one non-LD student (a low-achieving female) said she did not like to help others, because "they don't listen." Furthermore, two non-LD students preferred to have only teachers help them, because: "I really want to be sure;" "they [other students] think they are cool because they just gave you an answer."

When explaining why they liked to teach others, some students focused on how it felt (4 LD, 5 non-LD), for example, "It makes me feel good"; "It's fun"; "It feels like you are being needed; like when we had this math test, my two friends came to me because they didn't know how to do it, and I explained it to them, and it turned out both of them got an A, so I felt really good" (non-LD). Other students explained that tutoring enables them "to share what I know, so they could learn it, too" (7 LD, 6 non-LD). Five students (2 LD, 3 non-LD) emphasized particular subject areas, for example, "Like in social studies, they call me 'social studies man' because I know a lot, and every time that we do social studies I answer questions" (LD); "You might get stuck and then someone can tell you the word, or I might know something they don't" (non-LD). Two students with LD favored helping classmates "so they'll teach me when I don't know something." But perhaps the most poignant reason offered was, "I want to help them; I don't want to be different from them, and I want to make everyone in this world equal" (LD).

When asked why they liked to have other students teach them, almost everyone explained that it helped them learn "better," "faster," or "more" (11 LD, 10 non-LD). One non-LD student elaborated: "Just because you are smart does not mean you know everything." Other reasons included, "It gives me more friends" (non-LD); and, "You can laugh and tell jokes" (LD).

Student Profiles

In this section, the profiles of three students with LD are presented: one who preferred inclusion, another who preferred pull-out, and one who is visually impaired. Also included are the descriptions of one average-achieving student and one high-achieving student. All names are pseudonyms.

Student with LD Who Preferred Inclusion. David preferred to stay in the room all day because in the past all his friends had made fun of him

for leaving (calling him "Little Dummy" for LD). In previous years he had liked going to the resource room but only because the work was much easier than in his general education class and he could spend more time playing. However, he did not like that when he returned to the general education classroom after leaving the resource room, he did not know what to do because he usually entered in the middle of a lesson. He confided that he learned more when he did not go to special classes because the work in the general education class was harder and the expectations higher. David did not know why he was no longer pulled out of his class for help, and he thought he had two teachers because his class was involved in a special project with the university.

Student with LD Who Preferred Pull-Out. Martin preferred leaving the classroom to staying there all day "because sometimes I get bored in the general education class." He explained that he liked going to the resource room because (a) there were animals in the classroom, (b) he got free time when he finished his work, and (c) he was able to get away with things in (or on the way to) the resource room that he could not do in the general education class. At the same time, however, Martin acknowledged that the work was easy, and "that's not so good." He believed he had made more friends in the inclusion class (but could not say why). Martin seemed typical of those students who had not thought much about which service delivery option they preferred and did not have strong feelings either way.

Visually Impaired Student with LD. Lyle was a sixth-grade student with LD who was also visually impaired. Until a recent operation, he needed a scanner (a machine that enlarges print) to read. Lyle clearly preferred the inclusion class to the resource room model. He consistently stated that he liked staying in the general education classroom because he

enjoyed doing everything his class was doing and did not like to miss anything. He described how some students used to tease him (e.g., calling him "four eyes") at the beginning of the year until other students (well respected in the class) got them to stop. Classmates reminded Lyle to use his scanner, were patient about helping him, and cheered when he achieved success. He is the type of student (with an obvious physical disability) for whom it appears inclusion can work particularly well, for social reasons. It was Lyle who earlier in the year stated, "I'm not LD anymore" (because he no longer was pulled for LD classes).

Average-Achieving Student. Emily was an average-achieving sixth grader. She did not know why she had two teachers in her class but clearly liked the extra help available to her. She described the LD teacher as "helping the general education teacher" (apparently in the role of an aide), but also noted that "when the general education teacher explains something and we don't understand, the LD teacher explains it in a better way." Her preferences regarding service delivery options were mixed. On one hand, she preferred the resource room model because "it's hard to concentrate" when the LD teacher is helping the other kids. Yet, later, she said she liked the inclusion model because she preferred having "more teachers to help us." Emily would like to keep the extra teacher and still send the kids with LD out of the room for special help. She referred to the kids with LD as "them" (versus "us").

High-Achieving Student. Andrew was a high-achieving sixth-grade student. He did not realize that his second teacher was an LD teacher but thought she came to his class each day because she was new to the school. He described her role as sometimes working with the whole class (e.g., reading a story), but mostly helping individual students who needed extra help at their seats. Although he per-

sonally preferred when students with LD left the room for help because the room was quieter, there were fewer distractions, and the teacher could explain things faster, Andrew ultimately concluded that it was best for the students with LD to stay in the general education classroom so they could do the same lesson as everyone else without losing track and still get the extra help they needed. He noted that he had never really thought about these issues before, and that he has felt comfortable and happy in his (inclusive) class this year.

Discussion

What do students who have experienced both inclusion and pull-out resource programs think about them? Overall, the students in this study considered the pull-out model to be preferable to inclusion, although the students with LD were closer to an even split on this issue than the non-LD students.

We were surprised by how few students seemed to be emotionally engaged by this topic that has so charged professionals (see, e.g., Fuchs & Fuchs, 1994). Except in a few cases (e.g., Lyle, who strongly preferred inclusion), students expressed opinions but did not seem to care all that much whether they were part of inclusion or pull-out programs. So, although many students with LD stated that they preferred previous years when they had been in classrooms that were part of a resource model, they seemed quite satisfied with their current placements and their teachers, and appreciated the extra help available to them with an extra teacher in the room.

Our findings were consistent with those of Jenkins and Heinen (1989), who found that the students in their sample also preferred pull-out to in-class services. Yet Jenkins and Heinen explained their findings by hypothesizing that students were highly influenced by their current placement (preferring it to that of previous years).

Our results do not support this claim; all of the students interviewed for this study were involved in an inclusion model and the majority of students we interviewed preferred a model they had experienced during a previous year.

Students believed that learning was stressed in their inclusion classrooms, and that plenty of help was available from teachers and peers to support them. Consistently, students with LD said that they got more work done and that the work was harder when they stayed in the general education classroom (for some students, this was a plus; for others it was a minus). Students with LD frequently described the general education classroom as assigning "harder work." One interpretation of this might be that the special education resource room is not challenging enough for students with special needs. Another interpretation is that the special education resource room provides students with work at an appropriate level and that this is one of the few times during the day that they are engaged in such work; thus, students view it as easy. Previous research confirms that students with LD are provided few accommodations in the general education classroom to meet their academic needs and little of the work they are engaged in is at their reading level (McIntosh et al., 1993; Schumm et al., 1995; Zigmond & Baker, 1990).

Students distinguished between the social benefits and the academic benefits of inclusion. The consensus was that pull-out was preferable for learning but inclusion was better for making friends. This finding, like most others, has exceptions. There were a few children who believed that they had an opportunity to meet others from different classes and appreciated the social interactions that occurred in the pull-out resource room.

From having spent several years working with these teachers in their classrooms, we are aware that their classrooms are bustling with activity and that considerable student-to-student

and teacher-to-student interaction occurs. Some students (both with and without LD) seemed to thrive in this type of enriching environment, finding it stimulating and conducive to learning, with many opportunities to give or receive help. Other students (in particular, a subset of those without LD) reported that they felt it was hard to concentrate with so much activity going on in their classrooms. This was an important issue for these students who complained that their classrooms were "too noisy."

Students indicated some confusion about the role of the special education teacher. This is not surprising, as the role of the special education teacher in inclusion settings is complex and nontraditional (Baker & Zigmond, 1995; Klingner, Vaughn, & Schumm, 1995). Not only at this school but also in other inclusion programs, the role of the special education teacher includes teaching the whole class, providing small-group instruction, reteaching one or more students, consulting with the general education teacher, and serving as a liaison to parents and other professionals (Baker & Zigmond, 1995). Unlike in the Pugach and Wesson (1995) study, however, students perceived that the LD teacher was there primarily to help them rather than to help the general education teacher as an assistant.

That the students in these heterogeneous classrooms so consistently said they liked working together and helping each other is relevant and important. These students (LD and non-LD) considered other students to be resources. Students preferred working in groups and pairs to working individually, and they liked helping each other. This finding is interesting given that partners in these classrooms usually consisted of a higher achieving student and a lower achieving student.

It is important to note that the students with LD who participated in this study were considered by their IEP teams and school personnel to be functioning at high enough levels to benefit from placement in an inclusion

classroom. A small subset of students with LD at this school who had been in inclusion classrooms during the first year of implementation were returned to the resource program the next year because they seemed to be too low-functioning to thrive in the general education environment; although not part of our sample of 32 students currently placed in inclusion classrooms, those 4 students were also interviewed. They unanimously indicated that they preferred the pull-out program to the inclusion model because "it's not so frustrating; the work in the other class is much easier than the work inside the homeroom" and "it's quieter in there." These four students felt that the pull-out model was better for learning and making friends. As one girl explained, "My best friends are T. and M. [two other girls in her class who go with her to the resource room]. We always say we are sisters. We could talk to each other on the way [to the resource room]."

Implications

Students' views of the educational service delivery model that best met their academic and social needs varied by child. Overall, more children identified pull-out as the model of choice, but many children were confident that inclusion was meeting their academic and social needs. We believe that the results of this study provide additional support for maintaining a continuum of service delivery options, and that the placement of each child should be considered individually, based on his or her unique needs. Many students with LD are likely to profit from pull-out services, whereas other students' educational needs can be better met in an inclusion program.

Inclusion was viewed by many students as beneficial and preferable, particularly by those who could handle the more difficult work in a general education classroom. Many students with LD perceived that they got enough assistance with their learning and made more friends with the inclu-

sion model. They liked fitting in. However, other students with LD felt frustrated in an inclusion classroom and appreciated and valued the support they received with the pull-out model, perhaps viewing the resource room as a haven from the demands of the general education classroom. As noted by Roberts and Mather (1995), "Time and time again, the integration of students with LD into regular education classrooms has worked for some, but not for others" (p. 54). We agree with the student who noted, "If the other students in the class could help him then he should stay but if it is real serious then I think he should go and get special help."

Should student preference affect placement decisions? We believe that students' views do provide insights into their learning needs and should be considered. However, their preferences should be just one of many relevant factors considered when making a placement decision or when evaluating the appropriateness of an ongoing program. Some students who state that they prefer the resource room "because the work is easier" might thrive in an inclusive classroom, where they would be challenged to perform at higher levels. However, other students with the same stated preference might genuinely become overly frustrated and discouraged in a general education classroom but thrive in the resource program, where they would receive greater individualized attention.

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AUTHORS' NOTES

REFERENCES

Baker, E. T., Wang, M. C., & Walberg, H. J. (1994/1995). The effects of inclusion on learning. *Educational Leadership, 52,* 33–35.

Baker, J. M., & Zigmond, N. (1990). Are regular education classes equipped to accommodate students with learning disabilities? *Exceptional Children, 56,* 515–526.

Baker, J. M., & Zigmond, N. (1995). The meaning and practice of inclusion for students with learning disabilities: Themes and implications from the five cases. *The Journal of Special Education, 29,* 163–180.

Banerji, M., & Dailey, R. A. (1995). A study of the effects of an inclusion model on students with specific learning disabilities. *Journal of Learning Disabilities, 28,* 511–522.

Bogdan, R. C., & Biklen, S. K. (1992). *Qualitative research for education.* Boston: Allyn & Bacon.

Bryan, T. H., & Bryan, J. H. (1978). Social interactions of learning disabled children. *Learning Disability Quarterly, 1,* 33–38.

Conway, R. N. F., & Gow, L. (1988). Mainstreaming special class students with mild handicaps through group instruction. *Remedial and Special Education, 9,* 34–40.

Davis, W. E. (1989). The Regular Education Initiative debate: Its promises and problems. *Exceptional Children, 55,* 440–446.

Fuchs, D., & Fuchs, L. S. (1994). Inclusive schools movement and the radicalization of special education reform. *Exceptional Children, 60,* 294–309.

Fuchs, D., & Fuchs, L. S. (1995). What's "special" about special education? *Phi Delta Kappan, 76,* 522–530.

Fuchs, D., Fuchs, L. S., & Fernstrom, P. (1993). A conservative approach to special education reform: Mainstreaming through transenvironmental programming and curriculum-based measurement. *American Educational Research Journal, 30,* 149–177.

Gartner, A., & Lipsky, D. K. (1987). Beyond special education: Toward a quality system for all students. *Harvard Educational Review, 57,* 367–395.

Gersten, R., Walker, H., & Darch, C. (1988). Relationship between teachers' effectiveness and their tolerance for handicapped students. *Exceptional Children, 54,* 433–438.

Gresham, F. M. (1984). Social skills and self-efficacy for exceptional children. *Exceptional Children, 51,* 253–261.

Guterman, B. R. (1995). The validity of categorical learning disabilities services: The consumer's view. *Exceptional Children, 62,* 111–124.

Jenkins, J. R., & Heinen, A. (1989). Students' preferences for service delivery: Pull-out, in-class, or integrated models. *Exceptional Children, 55,* 516–523.

Kauffman, J. M. (1993). How we might achieve the radical reform of special education. *Exceptional Children, 60,* 6–16.

Klingner, J. K., Vaughn, S., & Schumm, J. S. (1995). *Changing roles and responsibilities of the LD specialist.* Unpublished manuscript.

Klingner, J. K., Vaughn, S., Schumm, J. S., & Hughes, M. (in press). Academic outcomes for students with and without disabilities in inclusive classrooms. *Learning Disabilities Research & Practice.*

McIntosh, R., Vaughn, S., Schumm, J. S., Haager, D., & Lee, O. (1993). Observa-

tions of students with learning disabilities in general education classrooms. *Exceptional Children, 60,* 249–261.

O'Neil, J. (1994/1995). Can inclusion work? A conversation with Jim Kauffman and Mara Sapon-Shevin. *Education Leadership, 52,* 7–11.

Psychological Corp. (1991). *Stanford achievement test (8th ed.).* San Antonio, TX: Author.

Pugach, M., C., & Wesson, C., L. (1995). Teachers' and students' views of team teaching of general education and learning-disabled students in two fifth-grade classes. *Elementary School Journal, 95,* 279–295.

Roberts, R., & Mather, N. (1995). The return of students with learning disabilities to regular classrooms: A sellout? *Learning Disabilities Research & Practice, 10,* 46–58.

Salisbury, C. L., Gallucci, C., Palombaro, M. M., & Peck, C. A. (1995). Strategies that promote social relations among elementary students with and without severe disabilities in inclusive schools. *Exceptional Children, 62,* 125–138.

Schumm, J. S., & Vaughn, S. (1992). Planning for mainstreamed special education students: Perceptions of general classroom teachers. *Exceptionality, 3,* 81–89.

Schumm, J. S., Vaughn, S., Haager, D., McDowell, J., Rothlein, L., & Saumell, L. (1995). General education teacher planning: What can students with learning disabilities expect? *Exceptional Children, 61,* 335–352.

Shanker, A. (1994/1995). Full inclusion is neither free nor appropriate. *Educational Leadership, 52,* 18–21.

Stainback, S., & Stainback, W. (1992). *Curriculum considerations in inclusive classrooms: Facilitating learning for all students.* Baltimore: Brookes.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research.* Newbury Park, CA: Sage.

Vaughn, S., & Bos, C. S. (1987). Knowledge and perception of the resource room: The students' perspective. *Journal of Learning Disabilities, 20,* 218–223.

Vaughn, S., Elbaum, B., & Schumm, J. S. (in press). Are students with learning disabilities in inclusion classrooms better liked and less lonely? *Journal of Learning Disabilities.*

Vaughn, S., Hughes, M. T., Schumm, J. S., & Klingner, J. K. (in press). A collaborative effort to enhance reading and writing instruction in inclusion classrooms. *Learning Disability Quarterly.*

Vaughn, S., & Schumm, J. S., (1995). Responsible inclusion for students with learning disabilities. *Journal of Learning Disabilities, 28,* 264–270, 290.

Vaughn, S., Schumm, J. S., Klingner, J. K., & Saumell, L. (1995). Students' views of instructional practices: Implications for inclusion. *Learning Disability Quarterly, 18,* 236–248.

Vaughn, S., Schumm, J. S., Niarhos, F., & Daugherty, T. (1993). What do students think when teachers make adaptations? *Teaching and Teacher Education, 9,* 107–118.

Vaughn, S., Schumm, J. S., Niarhos, F., & Gordon, J. (1993). Students' perceptions of two hypothetical teachers' instructional adaptations for low achievers. *The Elementary Journal, 94,* 87–102.

Wang, M. C., & Birch, J. W. (1984). Comparison of a full-time mainstreaming program and a resource room approach. *Exceptional Children 51,* (1), 33–40.

Wang, M. C., Reynolds, M. C., & Walberg, H. J. (1994/1995). Serving students at the margins. *Educational Leadership, 52,* 12–17.

Zigmond, N. (1995). An exploration of the meaning and practice of speical education in the context of full inclusion of students with learning disabilities. *The Journal of Special Education, 29,* 109–115.

Zigmond, N., & Baker, J. M. (1990). Mainstream experiences for learning disabled students (Project MELD): Preliminary report. *Exceptional Children, 57,* 176–185.

Zigmond, N., & Baker, J. M. (1994). Is the mainstream a more appropriate educational setting for Randy? A case study of one student with learning disabilities. *Learning Disabilities & Practice, 9,* 108–117.

Zigmond, N., & Baker, J. M. (1995). Concluding comments: Current and future practices in inclusive schooling. *The Journal of Special Education, 29,* 245–250.

APPENDIX
Students' Views of Inclusion Interview

Directions (Say:) I am going to ask you some questions about your class and your teachers. There are no right or wrong answers to these questions. This is not a test, and you will not be graded. Your teachers and classmates will not see your answers. I want to know what you really think.

1. What does (fill in the name of the LD teacher) do in your classroom?
2. Who does (fill in the name of the LD teacher) work with in your classroom?
3. Why do you have two teachers in your class?
4. How do you like having two teachers?
5. _____ (Last year or 2 years ago) you were in a class where some students left the room every day to get special help in another teacher's room, like _____ (fill in the special education teacher's name). Which way do you like best, when kids leave the classroom to get special help, or when they stay and get special help in your classroom?
   Probe: Why do you like that way best?
6. Which way do you think helps kids learn better (refer to #5 as necessary)?
   Probe: Why?
7. Which way do you think helps kids have more friends (refer to #5 as necessary)?
   Probe: Why?
8. Do you need more help with your schoolwork than you are getting?
   Probe: What do you think would be the best way for you to get more help?
9. When you don't understand your work, who is your favorite person to teach you?
   Probe (if the student mentions someone at home): What about at school? Why?
10. When you have reading or language arts you might work alone, with a partner, in a small group, or with the whole class.
    Which way helps you the most (repeat the choices if necessary)?
    Which way helps you a lot, but not as much as (refer to the response above)?
    Which way sort of helps you, but not as much as (refer to the responses above)?
    Which way helps you the least? Why?
11. Do you like to teach other students when you know something they don't?
    Why (or why not)?
12. Do you like other students to teach you when they know something you don't?
    Why (or why not)?