STUDENTS' VIEWS OF INSTRUCTIONAL PRACTICES: IMPLICATIONS FOR INCLUSION

Sharon Vaughn, Jeanne Shay Schumm, Janette Klingner, and Linda Saumell

Abstract. **This study examined middle- and high-school students' perceptions of teacher adaptations to meet the special learning needs of students in the general education classroom. Individual interviews were conducted with 95 middle- and high-school students who represented the following groups: low achievers, average achievers, high achievers, learning disabilities, and English as a second language. All students felt they needed further teacher assistance to learn from their textbooks and that they would benefit from using learning strategies. Students also identified grouping preferences and the types of teacher adaptations they perceived as most helpful. Implications of the findings for inclusion of students with learning disabilities in general education classrooms are provided.**

The Regular Education Initiative and the move toward more inclusive schools have not been without controversy. While few fail to see the many benefits of cooperative planning and instruction by professionals in general and special education, there is nonetheless increasing concern that the diverse learning needs of students, particularly those with learning disabilities (LD), may not be adequately addressed in the general education classroom.

Research has examined teachers' attitudes toward and practices for meeting the needs of diverse learners in general education classrooms (e.g., Baker & Zigmond, 1990; Ganchow, Weber, & Davis, 1984; Larsen, 1975; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993; Panda & Bartel, 1972; Propst & Nagle, 1981; White, 1986; Zigmond & Baker, 1990). For the most part, these studies have addressed student academic outcomes and teacher perceptions. One voice is noticeably missing — that of the student. We feel that students' perceptions of instructional practices are essential to the success of inclusive efforts because students' perceptions will directly and indirectly influence teachers' behavior.

Although children's perceptions have been considered in psychology (see for review, La Greca, 1990), little educational research has investigated students' perceptions. The few investigations of students' perceptions of instructional practices have revealed that students' insights provide valid, thoughtful information about student learning (Babad, 1990; Babad, Bernieri, & Rosenthal, 1991; Weinstein, 1983, 1985). Yet, only a few studies have concentrated directly on students' perceptions of teaching practices for children with special needs (Jenkins & Heinen, 1989; Vaughn & Bos, 1987), a topic of high interest with the move toward more inclusive schools.

SHARON VAUGHN, Ph.D., is Professor, University of Miami.

JEANNE SHAY SCHUMM, Ph.D., is Associate Professor, University of Miami.

JANETTE K. KLINGNER, Ph.D., is Assistant Professor, University of Miami.

LINDA SAUMELL, Ph.D., University of Miami.

We have addressed student perceptions of the adaptations teachers make to meet the special learning needs of students because we feel that students' reactions to such adaptations contribute to their likely success in the classroom. We also feel that knowledge of students' instructional preferences is useful to teachers as they struggle to improve their instructional effectiveness.

Thus, we have initiated a series of studies examining students' perceptions of adaptations made by teachers to accommodate students with special learning needs. Specifically, we have examined the perceptions of elementary students (Vaughn, Schumm, Niarhos, & Gordon, 1993), secondary students (Vaughn, Schumm, Niarhos, & Daugherty, 1993), and students with LD (Vaughn, Schumm, & Kouzekanani, 1993) of adaptations made by teachers to meet the individual needs of diverse learners.

In all three studies, students were asked to consider the teaching practices of two hypothetical teachers: Gardner, who made adaptations, and Douglas, who did not make adaptations (e.g., adaptations in tests, homework, grouping, instructional practice). Both elementary and secondary students preferred adaptations with three exceptions: tests, homework, and textbooks. Significant differences in academic achievement were found between students who preferred the teacher who made adaptations and those who preferred the teacher who did not make adaptations. Contrary to our prediction, students who preferred adaptations demonstrated significantly higher reading and math achievement scores than students who did not prefer adaptations.

An extended interview (Vaughn, Schumm, & Kouzekanani, 1993) conducted with the elementary students revealed that many students felt everyone would benefit from teachers' adaptations. Students recognized that many of their classmates had special needs (e.g., difficulty reading, difficulty writing, learning disabilities) and that it was necessary for the teacher to make adaptations so that all students could learn.

The extended interview also provided insights into why low-achieving students preferred the nonadapting teacher. A theme from the interviews was the importance of being similar to others in the room and "fitting in." Thus, because low-achieving students are the most likely targets for differentiated instruction, books, and tests, they indicated that they were more comfortable with the teacher who makes fewer adaptations. Furthermore, low-achieving students may feel that teachers who make adaptations have higher expectations for them, which may require them to take a more active role in their own learning (McIntosh et al., 1993).

We also conducted a study to investigate students' perceptions of textbook adaptations teachers might make (Schumm, Vaughn, & Saumell, 1992). Middle- and high-school students (n = 1,819) completed a survey instrument rating 33 textbook adaptations (e.g., study guides, taping of textbook content, graphic organizers) in terms of preference and perceived teacher use. Results indicated a difference between students' perceptions of the desirability of textbook adaptations (high) and their perceptions of the occurrence of these adaptations in the classroom (low). In general, students reported they were not exposed to the types of instructional adaptations they thought they needed for school success. This was particularly true among high-school students and high-achieving students.

The purpose of the current study was to conduct individualized interviews with middle- and high-school students to better understand their perceptions of teachers' adaptations to meet the special learning needs of students in the general education classroom. In particular, we were interested in what kinds of help students identify that they need in order to learn content area material. We examined the responses of a range of youngsters with LD, youngsters who speak English as a second language, low-achieving, average-achieving, and high-achieving students.

METHOD

Subjects

Subjects were 47 middle-school students (14 seventh graders and 33 eighth graders; 89% Hispanic, 8% Black, and 3% White non-Hispanic) and 48 high-school students (28 eleventh graders and 20 twelfth graders; 82% Hispanic, 1% Black, 16% White non-Hispanic, and 1% Asian-American or East Indian). The two schools attended by these students are located in a large city in the Southeastern United States and include a predominantly Hispanic population. The median percentile score on the most recent administration of the *Stanford Achievement Test*

reading comprehension subtest (Garner, Rudman, Karlsen, & Merwin, 1982) was 34 for the middle school and 45 for the high school.

Subject selection. An initial subject pool of 164 included all students in target science classes who had returned parent permission slips to participate in the study. We selected a stratified sample that represented low-achieving (LA), average-achieving (AA), high-achieving (HA), students with LD, and students who spoke English as a second language (ESOL). Our goal was to obtain 10 students from each group; however, we were successful in obtaining only 7 LA from the middle school and 8 LA from the high school. In cases with more than 10 students in a stratified group, students were randomly selected from that group to participate in the interviews.

All participating students with LD met school district criteria for classification as LD: significant discrepancy between IQ and achievement test scores, evidence of a processing deficit, and exclusionary criteria to ensure the learning disability was not due to other conditions (e.g., second language learning, physical disability). ESOL students were all classified as "Independent," no longer requiring self-contained ESOL services.

For the purpose of this study, LA students were identified as those students who achieved at stanine levels of 1, 2, or 3 in reading comprehension on the most recent school district administration of the *Stanford Achievement Test*. Students in the AA group were those scoring at stanine levels of 4, 5, or 6, while students in the HA group scored at stanine levels of 7, 8, or 9.

To ensure that students did not represent more than one subgroup, students who had at some point in their school careers been in self-contained ESOL classes or in programs for LD were omitted from the LA, AA, and HA subgroups. Table 1 provides information on sex, ethnicity, and achievement for all of the subgroups.

Table 1
Sex, Ethnicity, Mean Reading and Math Stanine Scores for LD, ESOL, LA, AA, and HA Students by Grade Grouping

	Sex		Ethnicity				Reading	Math	
	Female	Male	White	Hispanic	Black	Asian	Comprehension	Comp.	Appl.
	n	*n*	*n*	*n*	*n*	*n*	*M*	*M*	*M*
LD									
Middle	5	5	0	9	1	0	1.7	1.7	3.0
High	4	6	1	9	0	0	3.1	3.5	2.9
ESOL									
Middle	5	5	0	10	0	0	4.3	5.1	4.3
High	5	5	0	9	0	1	5.8	6.6	6.7
LA									
Middle	6	1	1	4	2	0	3.0	3.7	3.6
High	4	4	1	7	0	0	2.6	3.6	3.8
AA									
Middle	6	4	0	7	3	0	4.9	5.3	5.0
High	5	5	1	9	0	0	5.4	6.2	6.7
HA									
Middle	5	5	2	8	0	0	7.6	6.7	6.4
High	8	2	2	7	0	0	7.8	7.2	6.9

Note. LD = Learning Disabled; ESOL = English as a Second Language; LA = Low Achieving; AA = Average Achieving; HA = High Achieving.

Instrument

The instrument used in this study, *The Students' Perceptions of Textbook Adaptations Interview* (SPTAI), is an adaptation of two previously developed and evaluated instruments, *The Students' Perceptions of Teachers* (Vaughn, Schumm, Niarhos, & Daugherty, 1993) and *The Student Textbook Adaptation Evaluation Instrument* (Schumm et al., 1992).

The SPTAI consists of 11 structured questions, designed to elicit specific information, and follow-up open-ended probes, intended to encourage students to talk freely and to provide a rationale when appropriate (Bogdan & Biklen, 1992). The questions solicit students' opinions about activities, such as experiments or projects that supplement or replace textbooks; prereading activities, such as setting a purpose for reading; activities to be completed during reading, such as study guides or outlines; postreading activities, such as answering questions or writing summaries; activities that promote independent reading skills, such as teaching strategies to aid comprehension; and instructional grouping practices.

Three additional questions were included (a) to elicit information from students regarding their perceptions of the extent to which they think adaptations made for LA students who learn more slowly affected the learning of students who learn quickly; and (b) to determine if there are any other adaptations made by teachers to help students understand difficult material that they like or dislike.

Questions one through eight on the SPTAI are worded to offer students a choice between two hypothetical types of teachers, one who makes a specific adaptation and one who does not. For example, "Some teachers group students by ability levels (for example, putting kids who learn quickly together in one group, and kids who learn more slowly in another group). Some teachers group students so that ability levels are mixed. Which teacher would you prefer? Why?"

Procedures

After the SPTAI was field tested with 10 middle- and high-school students and reviewed by secondary teachers and an outside expert, the instrument was individually administered by trained interviewers. Interviews were tape-recorded, and tapes were audiochecked to ensure that responses had been accurately transcribed.

Coding Procedures

To establish codes for the interview data, two researchers independently read 20 randomly selected interviews (10 high school, 10 middle school). For each question, they searched the responses for common ideas and themes (Strauss & Corbin, 1990), which they used to develop an initial list of categories. The researchers then met to negotiate a mutual set of categories, with examples, for each question.

The two researchers used the categories to independently code the 20 previously selected interviews and then met to compare responses and revise and finalize the categories. The final coding scheme was reviewed by two independent researchers who were experienced in developing coding systems. It allowed the researchers to code each student's preference for the adaptations and his or her rationale.

Using the coding scheme, the two original researchers independently coded the transcribed responses to all the questions. Intercoder agreement was defined as the number of hits (i.e., both researchers coded the student's response in the same category) over the total number of responses. Intercoder agreement was .90. The two researchers conferred to resolve differences in coding.

RESULTS

Table 2 summarizes students' responses by achievement level. Tables 3, 4, 5, and 6 provide students' responses by category and rationale with representative supporting comments for selected interview questions.

Textbook Adaptations vs. No Adaptations (Questions 1 - 5)

Students in both grade groupings (middle and high school) overwhelmingly agreed that textbook adaptations help them understand difficult content material (see Table 2). However, students differed somewhat on their rationales for selecting adaptations. In general, middle-school students preferred adaptations to promote **interest** whereas high-school students, in general, preferred adaptations to promote **learning**.

Of the textbook adaptations, students were most enthusiastic about learning strategies, with 100% of the sample favoring strategy instruction. Students of all groups commented that strategies make learning more effective. A middle-school student with LD said, "They help stu-

Table 2
Summary of Students' Responses by Achievement Group (Frequency & Percentages)

	LD		ESOL		LA		AA		HA	
Question	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**
1. Prefers experiments	15	75	15	75	11	73	16	80	14	70
Prefers textbook	4	20	2	10	2	13	2	10	0	0
Both	1	5	3	15	2	13	2	10	6	30
2. Write summaries	15	75	13	65	13	87	13	65	16	80
No summaries	5	25	7	35	2	13	6	30	4	20
Depends	0	0	0	0	0	0	1	5	0	0
3. Study guides	14	70	18	90	12	80	19	95	16	80
No study guides	6	30	2	10	2	13	0	0	3	15
Depends	0	0	0	0	1	7	1	5	1	5
4. Tell purpose	20	100	19	95	14	93	19	95	20	100
No purpose	0	0	1	5	1	7	1	5	0	0
5. Teach strategies	20	100	20	100	15	100	20	100	20	100
No strategies	0	0	0	0	0	0	0	0	0	0
6. Homogeneous groups	10	50	9	45	10	67	7	35	5	25
Heterogeneous groups	10	50	11	55	5	33	12	60	14	70
Depends	0	0	0	0	0	0	1	5	1	5
7. Stay in same groups	8	40	5	25	1	7	5	25	5	25
Change groups	12	60	12	60	14	93	12	60	15	75
No preference	0	0	3	15	0	0	3	15	0	0
8. Teacher assigns	9	45	8	40	9	60	11	55	11	55
Students choose	11	55	11	55	6	40	8	40	8	40
No preference	0	0	1	5	0	0	1	5	1	5
9. Work alone	4	20	6	30	3	20	5	30	5	25
Work in pairs	12	60	6	30	6	40	9	45	5	25
Work in groups	4	20	7	35	5	33	3	15	5	25
Depends	0	0	1	5	1	7	3	15	5	25
10. Peer tutoring	18	90	20	100	12	80	19	95	17	85
No peer tutoring	2	10	0	0	3	20	1	5	3	15
11. Same test for all	10	50	13	65	11	73	13	65	16	80
Different tests	10	50	7	35	4	27	7	35	4	20
12. Same homework	13	65	15	75	10	67	16	80	16	80
Different homework	7	35	5	25	5	33	4	20	4	20
13. Adapt lesson	18	90	18	90	15	100	20	100	15	75
Do not adapt lesson	1	5	2	10	0	0	0	0	5	25
Depends	1	5	0	0	0	0	0	0	0	0
14. Changes slow class	19	95	14	70	12	80	17	85	19	95
Do not slow class	1	5	6	30	3	20	3	15	1	5

Note. LD = Learning Disabled (*N*=20); ESOL = English as a Second Language (*N*=20); LA = Low Achieving (*N*=15); AA = Average Achieving (*N*=20); HA = High Achieving (*N*=20).

dents to see, step-by-step, what the material is about." Many students reported that strategies help promote independence as in the case of a HA middle-school student, "I prefer a teacher who will provide techniques and strategies at the beginning and then let students go on their own after that"; and an AA high-school student, "Strategies help prepare students better for studying in college where they're not as likely to receive such help." Thus, a majority of students recognized that strategies can help make learning easier. An AA middle-school student commented, "You don't have to rack your brains to figure out how to do it."

Also highly favored were purpose statements (preferred by 95% of the students), because "they tell you what the point is." As expressed by one HA student, they help you "focus on salient content." Study guides or outlines (preferred by 83%) "tell you what to focus on" and "help you understand better."

Seventy-five percent of the sample preferred projects and experiments to textbook reading, because "they are more interesting and fun" and because they facilitate understanding. One LA student explained, "I prefer experiments and projects because the teacher gets more involved in the class, whereas with other assignments the teachers do not get involved." Another LA student commented, "I would love for someone to create a better way to teach chemistry or create a book which would be easier and more interesting to read. It seems every time I try to read a textbook, it's like I'm reading Chinese or something." Fourteen students (15%) advocated the combined use of text and direct experiences as in the case of the HA student who said, "Projects are fun, but the book explains it better."

Although the majority of students felt they learned by writing summaries or answering questions (74% of the total sample, and 65% of the ESOL and AA students), this was not a well-liked learning procedure. Those who favored writing summaries explained that doing so "helps you understand and remember better." However, as noted by one middle-school ESOL student, "Most kids don't like it, but if you don't do it, you won't learn anything." Students who did not like summaries thought they were too much work, and preferred other activities, such as discussions.

Heterogeneous vs. Homogeneous Ability Grouping (Question 6)

Slightly more students preferred heterogeneous to homogeneous grouping (55%). Interesting differences emerged between grade-level groups and among achievement groups regarding grouping (see Tables 2 and 3). Middle-school students tended to be more in favor of homogeneous groups (57%), and high-school students more in favor of heterogeneous groups (67%). Although we had expected to find the opposite, the majority of LA students (67%) favored homogeneous grouping, and the majority of HA students (70%) favored heterogeneous grouping. In fact, the 5 HA students who preferred homogeneous grouping were all middle-school students — 100% of the high-school HA students favored mixed ability grouping.

The most common rationale for grouping by ability levels was that "slower students hold back faster students." Most students who favored ability grouping, particularly middle-school and low-achieving students, were concerned about high-achieving students, worrying that "higher students would be bored by easier work." An LA student indicated that it "slows down other students a lot; that's why we should have everyone categorized with people of their same ability." But some students who preferred homogeneous groups were concerned about slower students: "That [ability grouping] gives everyone a chance to learn. If you put someone slow with people who learn fast, he won't understand and he'll do bad in that class."

Students who favored mixed ability grouping noted that "higher kids can help lower kids." Most students who preferred mixed groups demonstrated a concern for slower students though others were also concerned about their own learning. One HA student favored mixed groups, "as long as an individual's grades would not be inhibited by someone else's incompetence." A few students, such as this high-school AA student, noted that "separate groups by ability level stigmatize the slower students." Some students who preferred heterogeneous groups pointed out that there are also benefits for the high-achieving students; for example, "You learn more when you explain it to others."

Same Groups vs. Different Groups (Question 7)

Most students were in favor of sometimes changing groups (68%) (see Table 2), with LA stu-

Table 3
Frequency of Students' Responses with Breakdown by Rationale and Representative Supporting Comments for Question 6: "Do You Prefer Grouping by Ability Levels or Mixed Groups?"

Categories & Comments	MS	HS
Prefers grouping by ability levels	**27**	**14**
1. Rationale: Faster students learn better	19	6
"Slower students hold back faster students."		
"Brighter students get bored with slower students."		
2. Rationale: Slower students learn better	7	7
"If you put someone slow with people who learn fast, he won't understand and he'll do bad in that class."		
"The teacher could help those who don't learn fast."		
3. Rationale: Equity	1	1
"Slower kids might copy from higher kids."		
Prefers mixed groups	**20**	**32**
1. Rationale: Benefits faster students	2	3
"You learn more when you explain to others."		
2. Rationale: Benefits slower students	14	31
"Smarter students can help slower students."		
"It pushes slower kids to do better."		
"Separate groups by ability level stigmatize the slower learners."		
3. Rationale: Equity	4	4
"Everyone should learn the same things."		

Note. MS = Middle School; HS = High School.

dents most strongly favoring this practice (93%). Students conveyed that by switching groups, students can "learn different things" and "get to know other people." By comparison, students who prefer not to switch groups like the familiarity that comes from working in one group and feel they "work better in a constant environment."

Teacher Assignment vs. Student Selection of Groups (Question 8)

Differences were found between the two grade groupings and among ability groups regarding group selection. Whereas most middle-school students (64%) would like to select their own groups, most high-school students (63%) preferred that the teacher assign students to groups. The majority of LD and ESOL students (55%) preferred that students choose their own groups. The majority of LA, AA, and HA students (60%, 55%, and 55%, respectively) preferred that the teacher assign students to groups. Most of the students who would like to select their own groups said that they "don't want to get stuck with kids they don't like" and that they want to work with their friends. Some students favoring student selection were of the opinion that "students know best who they can work with." Students who would rather have the teacher assign groups expressed concerns about task completion and felt they could accomplish more without their friends. Many students said something similar to this comment made by a high-school student with LD, "If I pick my friends I'll just sit and talk and the work won't be done."

Working Alone, in Pairs, in Groups (Question 9)

Forty percent of all students interviewed said

they would prefer to work in pairs rather than alone or in larger groups. The preference for pairs was particularly prevalent among students with LD, with 60% selecting this option. Preferences for working alone or in larger groups were equally divided (with 24% and 25% of the students, respectively, selecting each). Middle-school students showed more inclination toward groups, high-school students toward working alone. Eleven percent of all students noted that their preference depended on the assignment. As one student explained, "I prefer to do in-class assignments in a group, but at-home assignments alone so my grade doesn't suffer from someone else's incompetence." Students who preferred to work by themselves noted that there are "fewer distractions" when working alone and that they "do not like to depend on anyone else." Students who preferred working with one other student commented that students in pairs can help one another without the chaos often present in larger groups. Students who prefer working with many students rationalized that "the work is spread out more" and "there are more people to explain things." Some students commented, "Groups are more fun."

Peer Tutoring vs. No Peer Tutoring (Question 10)

The overwhelming majority of students (91%) stated a preference for peer tutoring, with no real differences between grade levels and few differences among achievement groups. Most students supported their preference for tutoring by describing the benefits of tutoring for tutees. As expressed by one HA high-school student, "Stu-

Table 4
Frequency of Students' Responses with Breakdown by Rationale and Representative Supporting Comments for Question 10: "Should Students Who Understand Difficult Material Tutor Students Who Do Not Understand?"

Categories & Comments	MS	HS
Prefers tutoring	**44**	**42**
1. Rationale: Tutor learns better	3	3
"Sometimes the smarter students learn more when they are teaching someone else, because they can catch their mistakes."		
2. Rationale: Tutee learns better	27	29
"Students can often explain material better than the teacher. It's better for students to understand a smaller amount of material well (learned from a tutor) than to keep up with teacher lectures through more chapters but not really learning."		
3. Rationale: More motivating	11	7
"I like to help others."		
"It's easier to relate to another student."		
4. Rationale: Helps teacher	7	6
"It helps the teacher. She can't go person to person helping each student."		
Prefers no tutoring	**3**	**6**
"Students might make mistakes and make matters worse for the student who doesn't understand."		
"It's the teacher's responsibility."		

Note. MS = Middle School; HS = High School.

Table 5
Frequency of Students' Responses with Breakdown by Rationale and Representative Supporting Comments for Question 13: "Should Teachers Change the Way They Are Teaching (e.g., Slow Down) When Some Students Don't Understand?"

Categories & Comments	MS	HS
Prefers teacher not to change lesson	**4**	**4**
"The teacher should continue the lesson as long as the majority of the class understands it."		
Prefers teacher to change lesson	**40**	**43**
1. Rationale: Better for learning	25	28
"I've been in this position and I found that by changing, the teacher has made the material more understandable."		
"If students are confused and the teacher keeps going, they'll just get more confused. They won't get any better."		
2. Rationale: More motivating	4	1
"Otherwise, students who learn slower say, 'Forget this, I'm never going to get this,' and they give up."		
3. Rationale: Teacher's role	5	9
"This will help struggling students and show the teacher cares about them. Teachers are here to help students learn, not to make it more difficult for them."		
"It's probably the teaching method and not the material that is responsible for the difficulty with understanding the lesson."		
4. Rationale: Equity	3	3
"Everyone has the same right to learn."		
5. Other	3	0

Note. MS = Middle School; HS = High School.

dents can often explain material better than the teacher. It's better for students to understand a smaller amount of material well [learned from a tutor] than to keep up with teacher lectures through more chapters but not really learning." An ESOL student revealed, "In calculus I don't know what the teacher is talking about, but if someone else explains it to me, I get it." A few students described the benefits of tutoring for tutors; for example, "Sometimes the smarter students learn more when they are teaching it to someone else because they can catch their mistakes." The few students who did not like tutoring remarked that "it was the teacher's job to get them to understand."

Same Tests and Homework vs. Different Tests and Homework (Questions 11 and 12)

The majority of students thought that all students should be administered the same tests (66%) and the same homework (74%). This result is consistent with findings from our previous research (Vaughn, Schumm, Niarhos, & Daugherty, 1993; Vaughn, Schumm, & Kouzekanani, 1993). However, more middle-school than high-school students believed that some students should receive different homework and/or tests (36% and 40% for middle-school students compared with 17% and 27% for high-school students).

Students with LD were split 50/50 regarding their preference for same vs. different tests, compared to an 80/20 split among HA students. Equity was proffered as the rationale by almost all students, both those who thought all students should receive the same tests and homework and those who felt that tests and homework should be different for some students. Many students exclaimed that it is "not fair to change a test or homework for some students." Other students pointed out that "it's more fair" to give different tests and homework because of students' different ability levels. When students who advocated giving everyone the same tests and homework were asked a follow-up question regarding whether it would be OK to give a different test to a student with LD or an ESOL student, most students said that it would be all right. Some students noted that these students with special needs should be placed in other classes.

Adapt Lesson vs. Do Not Adapt Lesson (Question 13)

Almost all students (91%) felt teachers should slow down or change lessons when some students did not understand the lesson content. No real differences between grade level groups were noted on this issue, but a few differences emerged among achievement groups. In contrast with LA and AA groups (100% of the students favored adaptations), 25% of the students in the HA group opposed adaptations.

As shown in Table 5, the majority of students who favored adaptations did so because changes were perceived as facilitating learning. As ex-

Table 6
Frequency of Students' Responses with Representative Supporting Comments for Question 14: "Do Adaptations to Assist Students Who Are Having Difficulty Slow Down the Rest of the Class?"

Categories & Comments	MS	HS
Does not slow down the class	**8**	**7**
"I don't think it slows down students who already understand, because practice makes perfect. They might get bored after a while, but they won't forget it."		
A little, but not too much	**18**	**19**
"Others can work on assignments during this time so it is sort of a benefit for them."		
"Not much. If anything, it gives them a better understanding of the lesson. Most students are courteous and won't complain."		
Somewhat/It depends	**7**	**11**
"It depends. If the teacher makes changes that are drastically different from what they were doing, it could unfairly slow down the students who already understand. If they make occasional changes until students catch up, however, that would be okay."		
A lot	**14**	**10**
"A lot. It is boring for those who understand."		
"You may get only half the lesson content you're supposed to get."		
Other	**0**	**1**
"The person should go to the teacher other than class time so as not to slow the class, like before or after school."		

Note. MS = Middle School; HS = High School.

pressed by one high-school AA student, "I've been in this position and I found that by making changes, the teacher has made the material more understandable." Some students emphasized that it is the teacher's role to assist all students; for example, "This will help struggling students and show the teacher cares about them. Teachers are here to help students learn, not to make it more difficult for them." And one middle-school HA student pointed out, "It's probably the teaching method and not the material that is responsible for the difficulty with understanding the lesson." A few students noted, "Everyone has the same right to learn."

How Much Do Adaptations Slow Down the Rest of the Class? (Question 14)

The majority of students (85%) expressed the opinion that adaptations to assist students who are having difficulty **do** slow down the rest of the class; however, close to half of these students (46%) felt that this is beneficial (see Table 6). Although middle- and high-school students' opinions differed little on this issue, differences were noted among achievement groups. Specifically, 95% of the students in the LD and HA groups felt that adaptations slow down lessons, compared with 70% of the students in the ESOL group.

Fifty-five percent of the total sample felt that adaptations either do not slow down the class or slow down the class a little, but not too much; for example, "I don't think it slows down students who already understand, because practice makes perfect. They might get bored after a while, but they won't forget it." Or, as another student pointed out, "Others can work on assignments during this time so it is sort of a benefit for them."

On the other hand, 44% of all students felt that adaptations inhibit some students too much; for example, "It depends. If the teacher makes changes that are drastically different from what they were doing, it could unfairly slow down the students who already understand. If they make occasional changes until students catch up, however, that would be OK." Many students were concerned that changes could slow down some students a lot, limiting content coverage and creating boredom. Several of these students recommended that slower students receive help outside of class or be placed in a different class.

Although many students expressed the view that adaptations slow down some students a great deal, these students still preferred that teachers make adaptations. However, many reported that their teachers did not typically make adaptations. One student stated it this way, "Very few of my teachers abide by these preferences (e.g., textbook adaptations). I believe that it is for this reason that I become bored of school and turn my interests toward out-of-school activities. It is not the text that makes the student, but the method teachers use. Plain and simple, teachers do not teach anymore!"

CONCLUSIONS AND FUTURE DIRECTIONS

Our interviews with 95 middle- and high-school students indicate that students of all ability levels prefer a variety of content presentations and that when textbooks are used students suggest that more attention be directed to helping them learn from print. All students felt that they would benefit from strategy instruction designed to assist them in learning on their own. Most wanted more teacher-directed assistance through pre-reading and during reading textbook adaptations, and most were anxious to receive assistance from their peers (although their preferences for grouping patterns and compositions varied widely).

Many students realized that in order for learning to take place, personal effort was needed (as in writing summaries). One AA middle-school student summarized his opinions about adaptations succinctly, "I'll take any help I can get." The unfortunate finding was that most of the students did not feel that they were getting the help they needed, thus supporting previous research noting infrequent implementation of content-area reading strategies (Davey, 1988; Rich & Pressley, 1990; Schumm et al., 1992).

The success of inclusion efforts will hinge on teachers making adaptations that are helpful to all students. Several implications from this study relate directly to inclusion efforts for students with LD. First, all students need to be taught learning strategies that will provide them with the tools they need to actively participate and learn from teacher presentations and texts. Students across achievement groups resoundingly saw this as a high need for them.

Second, grouping practices need to reflect students' learning styles. To promote learning, teachers must consider using student pairing as

well as small teacher-selected groups. According to our previous research, student pairing is rarely used in general education classrooms (McIntosh et al., 1993). Yet, student pairing that involves peer tutoring is viewed as particularly effective by students.

Third, grouping practices need to consider the learning needs of all students, including high and low achievers. Students informed us that considering one type of grouping practice, heterogeneous or homogeneous, as superior for all students is out of line with students' experiences. Yet, both heterogeneous and homogeneous grouping procedures have a role in successful instructional practice. Furthermore, most HA and AA students viewed heterogeneous grouping more favorably than LA students and students with LD. Perhaps the learning difficulties of low-achieving students are more obvious to them and their peers in heterogeneous groups, thus their reluctance to participate in them.

Fourth, this study, as well as our previous research, suggests that adaptations that assist students in learning are viewed positively, though many students are concerned that adaptations may slow the pace and prevent them from learning.

Results of this structured interview coupled with our previous research (Schumm et al., 1992; Vaughn, Schumm, & Kouzekanani, 1993; Vaughn, Schumm, Niarhos, & Gordon, 1993) have provided guidelines for better understanding students' perceptions of instructional adaptations. Our future plans include case study research in which we elicit the responses of students of varying achievement levels as well as content-area teachers to videotaped teaching episodes when a variety of textbook and instructional adaptations are employed. We also intend to obtain teachers' and students' feedback on when and how these adaptations can be implemented and to solicit their involvement in implementing and evaluating the adaptations.

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Requests for reprints should be addressed to: Sharon R. Vaughn, School of Education, 312 Merrick Building, University of Miami, Coral Gables, FL 33124.