8. SECONDARY SCHOOL STUDENTS' EXPERIENCES IN SPECIAL EDUCATION CLASSROOMS

By Phyllis Levine and Mary Wagner

Although the emphasis of much special education legislation and policy is on increasing the access of students with disabilities to general education classrooms and curricula, special education classes constitute more than one-third of those taken by secondary school students with disabilities in a given semester, as noted in Chapter 4. Seventy percent of secondary school students with disabilities take at least one class in a special education setting in a given semester. Thus, what happens in special education classrooms has much to do with students' overall school experience and what they learn from it.

Chapter 4 outlined the kinds of courses students with disabilities tend to take in special education classes. This chapter focuses on what goes on in those special education courses, other than courses involving vocational or prevocational education (these are described in Chapter 7). Classes will be referred to in this chapter as special education classes, but readers should be aware that they do not include vocational education classes taught in special education settings.

The chapter examines the classroom experiences of secondary school students with disabilities in special education classes in an effort to address the question "What is special about special education?" (Cook & Schirmer, 2003). The first section describes the instructional practices in special education classrooms, including the extent to which the curriculum has been modified from curricula used for the corresponding subject in general education classrooms, instructional groupings and materials used, and the extent to which classroom activities are supplemented by instructional activities outside the classroom. A second section describes several aspects of students' participation in classroom activities. Finally, the factors that teachers consider to be important in evaluating the overall performance of students in their classes are discussed.

Information reported in this chapter was provided by school staff respondents to the NLTS2 student's school program survey, who were identified as the people best able to describe the school programs of individual NLTS2 students. If a respondent was a special educator who taught a given student in a nonvocational special education class, he or she was asked to provide information about that class. If he or she did not teach a given student, the respondent was directed to obtain information about the first nonvocational special education class the student had in the week.

Information about special education classroom experiences are presented with an emphasis on the differences between classes that focus on an academic subject (i.e., math, science, language arts) and two kinds of classes that focus on skills: study skills classes, in which students receive help with homework and learn successful studying and test-taking strategies, and classes that focus on functional life skills that lead to independent living, including basic academic skills, such as beginning reading or counting.¹ As noted in Chapter 5, for 61% of students who take special education classes, the classes described in this chapter are academic subject classes; they are study skills classes for 24% of students and life skills classes for 15% of students.

¹ For convenience, these kinds of classes will be referred to as life skills classes.

Classroom experiences also are presented for students who differ in their primary disability classification and demographic characteristics, where significant.

Instructional Practices in Special Education Classes

This section describes special education classes in terms of:

- Curriculum
- Instructional groupings
- Instructional materials
- Instructional activities outside of class.

Curriculum

The curriculum students with disabilities experience in special education classes often is one of the unique aspects of their program. Although 4% of students with disabilities receive an unmodified general education curriculum in their special education classes (Exhibit 8-1), the other 96% of students with disabilities who take special education classes have a curriculum with some degree of modification or specialization, or they have no curriculum at all (e.g., in a class that focuses on homework help). Special education students are about equally likely to have a curriculum that is reported to have "some modification" (29%) or a specialized or individualized curriculum (32%). About one in six students with disabilities (18%) have a substantially modified curriculum in their special education class, and a similar percentage (17%) have no curriculum at all.

| Exhibit 8-1 EXTENT OF CURRICULUM MODIFICATION IN SPECIAL EDUCATION CLASSES, BY SUBJECT AREA | | | | | | | | | | | |
|---|-------------------------------------|-----------|--------|---------------------------|--|--|--|--|--|--|--|
| | All Special Education Classes | | Skills | Life Skills Classes | | | | | | | |
| Percentage in classes using a general education curriculum: | | | | | | | | | | | |
| Without modification | 3.7 | 3.2 | 7.1 | .4 | | | | | | | |
| | (.9) | (1.1) | (2.8) | (.6) | | | | | | | |
| With some modification | 29.2 | 40.0 | 17.7 | 2.4 | | | | | | | |
| | (2.3) | (3.2) | (4.2) | (1.5) | | | | | | | |
| With substantial modification | 18.3 | 25.4 | .6 | 18.5 | | | | | | | |
| | (1.9) | (2.8) | (.9) | (3.8) | | | | | | | |
| Percentage with: | | | | | | | | | | | |
| A specialized or individualized | 31.5 | 31.1 | 6.5 | 74.1 | | | | | | | |
| curriculum | (2.3) | (3.0) | (2.7) | (4.3) | | | | | | | |
| No curriculum (e.g., a class focused on homework help) | 17.3 | .3 | 68.1 | 4.5 | | | | | | | |
| | (1.9) | (.4) | (5.1) | (2.2) | | | | | | | |
| Source: NLTS2 Wave 1 student's sc Standard errors are in parentheses. | hool prograi | m survey. | | | | | | | | | |

The curriculum used in special education classes varies widely across subject areas. For example, the absence of a curriculum is apparent largely in study skills classes. About two-thirds of students in such classes have no curriculum, focusing instead on homework or other hands-on assistance. In contrast, a specialized curriculum is used for almost threefourths of students in life skills classes. The general education curriculum is used primarily in academic subject classes; it is modified somewhat for 40% of students in those classes and substantially for 25% of them. The use of a general education curriculum without modification is rare, regard-less of the type of special education class.

Instructional Groupings

Findings presented in Chapter 5 demonstrate that special education classes tend to have a low student-adult ratio, which may provide opportunities for individualizing instructional content or practices. In addition, teachers may use a variety of instructional groupings to respond to individual learning needs. This section addresses the use of whole-class, small-group, and individual instruction in special education classes. Research has demonstrated the effectiveness with students with disabilities of both small-group instruction (Elbaum, Vaughn, Hughes, & Moody, 1999; Lou et al., 1996; Rashotte, MacPhee, & Torgesen, 2001) and individualized instruction (Elbaum, Vaughn, Hughes, & Moody, 2000;Wasik & Slavin, 1993), although much of the research on individualized instruction has been conducted with younger students. To assess the extent to which these groupings are used in special education classes for secondary school students, school staff respondents reported whether specific individual students take part in the various instructional groupings "often," "sometimes," or "rarely or never."

| E: INSTRUCTIONAL EDUCATION CLAS | | | - | |
|--|-------------------------------------|---------------------|------------|---------------------------|
| | All Special Education Classes | Academic Classes | | Life Skills Classes |
| Percentage with frequency of teachers using: Whole-class instruction | | | | |
| Often | 39.4 | 49.9 | 17.6 | 29.0 |
| | (2.4) | (3.3) | (4.3) | (4.5) |
| Sometimes | 41.2 | 42.1 | 36.7 | 44.3 |
| | (2.5) | (3.2) | (5.5) | (4.9) |
| Small-group instruction | | | | |
| Often | 44.1 | 45.6 | 37.8 | 48.4 |
| | (2.5) | (3.2) | (5.5) | (4.9) |
| Sometimes | 50.8 | 50.8 | 52.8 | 46.7 |
| | (2.5) | (3.3) | (5.6) | (4.9) |
| Individual instruction from classroom teacher | | | | |
| Often | 41.6 | 35.2 | 55.5 | 46.2 |
| | (2.4) | (3.1) | (5.5) | (4.9) |
| Sometimes | 51.6 | 56.4 | 38.6 | 51.7 |
| | (2,5) | (1.8) | (5.4) | (4.9) |
| Individual instruction from an adult other than the teacher | | | 、 , | |
| Often | 19.5 | 14.7 | 30.4 | 24.5 |
| | (2.0) | (2.3) | (4.6) | (4.9) |
| Sometimes | 33.1 | 30.7 | 49.1 | 28.5 |
| | (2.4) | (3.0) | (5.0) | (5.1) |
| Source: NLTS2 Wave 1 student's Standard errors are in parenthes | | ıram survey | '. | |

Students in special education classes experience a mix of instructional groupings (Exhibit 8-2). Similar proportions receive frequent instruction in whole-class (39%) or small-group formats (44%) or individually from the teacher (42%); individual instruction from an adult other than the teacher is less common (20% receive such instruction often; p<.001). Almost all students in special education classes are instructed in small groups or individually by the teacher at least sometimes. In contrast, 19% of students do not receive whole-class instruction and 47% do not receive individual instruction from an adult other than the teacher even sometimes.

Frequent whole-class instruction is most common in classes with an academic subject focus, where half of students experience it often (p<.001 compared with other kinds of classes). Frequent small-group instruction is about equally likely to be used across the kinds of classes (38% to 48%

receive it often). More than half (56%) of students in classes that focus on study skills receive frequent individual instruction from their teachers, and 30% receive frequent individual help from another adult, a significantly higher likelihood of frequent individual instruction of both kinds than experienced by students in academic special education classes (35% and 15%, p<.01).

Instructional Materials

The diverse learning needs of students with disabilities and the range of purposes served by the kinds of special education classes they take dictate that a variety of materials and equipment are used in those classes. School staff were asked to rate the frequency with which students used the range of instructional materials indicated in Exhibit 8-3.

Only textbooks, workbooks, or worksheets are reported to be used often for a majority of students in special education classes. Two-thirds of students in such classes have teachers who are reported to use them often, including three-fourths of students in academic special education classes. In study skills classes, 58% of students have teachers who use them often, as do 48% of students in life skills classes (p<.01 and p<.001). Other print materials are used often for about 27% of students in special education classes, with use being about equally frequent in academic and life skills classes (30% and 31%) and less frequent in study skills classes (17%, p<.05).

| EX INSTRUCTIONAL MA EDUCATION CLAS | | | | |
|--|-------------------------------------|-------------|----------------------------|---------------------------|
| | All Special Education Classes | | Study Skills Classes | Life Skills Classes |
| Percentage with frequency of teachers using: Textbooks, worksheets, workbooks | | | | |
| Often | 67.0 | 74.9 | 58.1 | 48.4 |
| | (2.3) | (2.8) | (5.5) | (5.0) |
| Sometimes | 24.8 | 20.4 | 32.3 | 31.4 |
| | (2.1) | (2.6) | (5.2) | (4.6) |
| Supplemental print materials (e.g., maps, newspapers) | | | | |
| Often | 27.1 | 29.5 | 17.2 | 31.2 |
| | (2.2) | (3.0) | (4.2) | (4.6) |
| Sometimes | 49.6 | 51.6 | 47.9 | 46.5 |
| | (2.5) | (3.3) | (5.6) | (4.9) |
| Lab equipment/tools | | . , | | . , |
| Often | 4.7 | 5.7 | 2.9 | 3.9 |
| | (1.1) | (1.5) | (1.9) | (1.9) |
| Sometimes | 18.0 | 19.0 | 15.1 | 18.7 |
| | (4.7) | (2.6) | (4.0) | (4.9) |
| Screen-based media | | | | |
| Often | 7.4 | 6.8 | 5.1 | 11.6 |
| | (1.3) | (1.6) | (2.5) | (3.2) |
| Sometimes | 55.4 | 62.7 | 36.0 | 58.1 |
| | (2.5) | (3.2) | (5.4) | (4.9) |
| Life skills materials (e.g., token economy items) | | | | |
| Often | 12.5 | 9.1 | 1.5 | 43.9 |
| | (1.6) | (1.9) | (1.4) | (4.9) |
| Sometimes | 22.8 | 23.2 | 12.0 | 37.1 |
| | (2.1) | (2.8) | (3.6) | (4.8) |
| Source: NLTS2 Wave 1 student's Standard errors are in parenthese | | ıram survey | | |

As would be expected, students in life skills classes are the most likely to use life skills materials, such as token economy items or items that encourage development of various self-care skills (44%). Few students in academic or study skills use these materials (9% and 2%, p<.001 compared with students in life skills classes). Screen-based media are equally likely to be used in academic and life skills classes: 70% of students in those classes are exposed to them at least sometimes, compared with 41% in study skills classes (p<.001). Lab equipment is used infrequently, regardless of the type of special education class.

Computers are not used often for any purpose in any kind of class (Exhibit 8-4); from 8% to 14% of students with disabilities are in special education classes where they use computers often for skills practice, word processing or other applications, or to access the Internet. Skills practice is a particularly uncommon use of computers; 42% of students are in special education classes in which they reportedly are used at least

| Exhibit 8-4 COMPUTER USE IN SPECIAL EDUCATION CLASSES, BY SUBJECT AREA | | | | | | | | | | | |
|--|-------------------------------------|---------------|----------------------------|---------------------------|--|--|--|--|--|--|--|
| | All Special Education Classes | | Study Skills Classes | Life Skills Classes | | | | | | | |
| Percentage with frequency of teachers using: Computers for word processing, spreadsheets, etc. | | | | | | | | | | | |
| Often | 14.4 (1.7) | 11.8 (2.1) | 24.2 (4.7) | 7.9 (2.7) | | | | | | | |
| Sometimes | 45.8 (2.5) | 44.4 (3.2) | 56.1 (5.5) | 37.3 (4.8) | | | | | | | |
| Computers for Internet access | | | | | | | | | | | |
| Often | 9.8 (1.5) | 7.5 (1.7) | 17.7 (4.2) | 5.4 (2.3) | | | | | | | |
| Sometimes | 54.8 (2.5) | 53.8 (3.2) | 61.6 (5.4) | 47.2 (5.0) | | | | | | | |
| Computers for skills practice | | | | | | | | | | | |
| Often | 7.5 (1.3) | 6.3 (1.6) | 8.6 (3.1) | 10.8 (3.1) | | | | | | | |
| Sometimes 35.0 36.1 26.6 44.0 (2.4) (3.1) (4.9) (4.9) | | | | | | | | | | | |
| Source: NLTS2 Wave 1 student's school program survey. | | | | | | | | | | | |
| Standard errors are in parentheses | • | | | | | | | | | | |

sometimes for that purpose, although more than half of students are in life skills classes where they are used for skills practice at least sometimes (55% vs. 35% for students in study skills classes, p<.01). Computers are more likely to be used often for Internet access or for writing or other similar tasks in study skills classes (18% and 24%, respectively, compared with 8% and 12% for students in academic classes, and 5% and 8% for students in life skills classes).

Instructional Activities outside the Classroom

Classroom instruction can be augmented effectively with instructional activities that occur outside the classroom, such as working on a project in the school media center, taking a field trip, or

doing a service-learning project in the community. NLTS2 findings show that none of these kinds of instructional activities that take place outside the classroom are frequent activities for the majority of students in special education classrooms (Exhibit 8-5).

Although out-of-classroom instructional activities that take place in the school are experienced at least sometimes by 70% of students with disabilities in special education classes, only 27% of them have such experiences often. Activities that take place in the community (e.g., riding a bus, visiting a grocery store) are experienced often by 16% of students in special education classes, and 9% often go on field trips, although about one-third and one-half of students, respectively, experience them at least sometimes (p<.001 compared with school-based experiences).

As with in-class activities, the frequency with which students engage in these experiences reflects the nature of their classes. Students in academic subject or study skills classes would naturally be less likely to leave the classroom than students in life skills classes that are specifically geared to developing skills that will increase their long-term independence (e.g., handling money, reading signs, renting an apartment). Students in life skills classes would be expected to have more hands-on experiences that may be simulated in different school settings or provided as real-life experiences in the community. In fact, compared with their peers in classes that focus on an academic subject or study skills, significantly larger proportions of students in life skills classes frequently engage in activities outside the classroom both in the school (43% vs. 26% and 20%, respectively, p<.001) and in the community (33% vs. 14% and 11%, p<.001), and take field trips (21% vs. 8% and 4%, p<.001).

| Ex INSTRUCTIONAL ACT EDUCATION CLASSR | | | | |
|--|-------------------------------------|---------------------|----------------------------|---------------------------|
| | All Special Education Classes | Academic Classes | Study Skills Classes | Life Skills Classes |
| Percentage with frequency of: | | | | |
| School-based experiences (e.g., library) | | | | |
| Often | 26.9 (2.2) | 25.6 (2.8) | 20.0 (4.5) | 42.8 (4.9) |
| Sometimes | 42.7 (2.5) | 44.5 (3.2) | 39.0 (5.5) | 42.8 (4.9) |
| Community-based exper- | | | | |
| iences (e.g., riding a bus) | | | | |
| Often | 15.9 (1.8) | 13.7 (2.3) | 11.0 (3.6) | 33.2 (4.7) |
| Sometimes | 21.6 | 21.9 | 13.4 | 35.0 |
| | (2.1) | (2.7) | (3.9) | (4.7) |
| Field trips | | | | |
| Often | 9.2 (1.4) | 7.7 (1.7) | 4.4 (2.3) | 21.4 (4.1) |
| Sometimes | 40.3 (2.5) | 38.8 (3.2) | 35.1 (5.4) | 54.8 (5.0) |
| Source: NLTS2 Wave 1 student's Standard errors are in parenthese | | am survey. | | |

Disability Variations in Instructional Practices

There are no systematic differences in instructional practices used in special education classes across grade levels or for students with different demographic characteristics. However, students in different disability categories² have different experiences in special education classrooms. In many respects, differences in instructional practices across disability categories reflect differences in the likelihood that students in those categories take the various kinds of special education courses. As reported in Chapter 5, students in different disability categories have markedly different levels of enrollment in the various kinds of special education classes (please see Exhibit 5-2). For

example, the majority of students with learning disabilities, emotional disturbances, traumatic brain injuries, or speech, hearing, or other health impairments have experiences reported for special education classes that teach an academic subject. In contrast, only about one-third of students with autism or multiple disabilities have experiences reported for such classes. Larger proportions of these students are in life skills classes. NLTS2 analyses not reported here suggest that subject area differences tend to overshadow differences between students with different disabilities within a given subject area classroom.

Curriculum. Few students in any category are in special education classes with an unmodified general education curriculum (Exhibit 8-6), although students with speech impairments are more likely to have an unmodified curriculum (8%) than students in several other categories (e.g., those with mental retardation or autism, p<.05). Students who are more likely to have a general education curriculum with only some modification generally are those who also are more likely to have their experiences reported for academic subject classes, including students with learning disabilities, speech impairments, and emotional disturbances; about one-third of these students have access to a general education curriculum with some modifications. Disability categories with higher percentages of students who are in special education classes with no curriculum generally are those categories of students more likely to have their experiences reported for study skills classes—students with learning disabilities, emotional disturbances, or speech, hearing, visual, orthopedic, or other health impairments (16% to 24%). Similarly, students who are more likely to have a specialized or individualized

 $^{^2}$ There are too few students with deaf-blindness in a particular instructional setting to report findings for them separately in this chapter.

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|---|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|
| Percentage using general education curriculum: | | | | | | | | | | | |
| Without modification | 3.4 | 8.1 | 1.9 | 6.9 | 5.9 | 6.9 | 2.6 | 5.2 | 1.8 | 1.0 | 2.2 |
| | (1.4) | (2.6) | (.9) | (2.5) | (2.6) | (4.1) | (1.4) | (1.7) | (1.0) | (1.5) | (1.2) |
| With some modification | 34.8 | 32.3 | 9.2 | 34.7 | 27.4 | 16.5 | 16.1 | 27.1 | 9.9 | 24.9 | 9.0 |
| | (3.7) | (4.5) | (2.0) | (4.6) | (5.0) | (6.0) | (3.2) | (3.5) | (2.3) | (6.4) | (2.4) |
| With substantial modification | 17.0 | 14.3 | 24.2 | 17.5 | 16.2 | 12.3 | 21.5 | 18.2 | 14.6 | 28.2 | 19.1 |
| | (2.9) | (3.4) | (2.9) | (3.7) | (4.) | (5.3) | (3.6) | (3.0) | (2.7) | (6.6) | (3.3) |
| Percentage with: | | | | | | | | | | | |
| A specialized/individualized curriculum | 23.3 | 27.2 | 62.0 | 24.0 | 33.0 | 40.1 | 44.0 | 28.2 | 63.9 | 40.8 | 64.9 |
| | (3.3) | (4.3) | (3.3) | (4.12) | (5.3) | (8.0) | (4.4) | (3.5) | (3.7) | (7.3) | (4.0) |
| No curriculum | 21.5 | 18.2 | 2.6 | 16.9 | 17.6 | 24.2 | 15.8 | 21.3 | 9.9 | 5.1 | 4.8 |
| | (3.2) | (3.7) | (1.1) | (3.6) | (4.3) | (7.0) | (3.2) | (3.2) | (2.3) | (3.2) | (1.8) |

Exhibit 8-6 EXTENT OF CURRICULUM MODIFICATION IN SPECIAL EDUCATION CLASSES, BY DISABILITY CATEGORY

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

curriculum, e.g., those with mental retardation, autism, or multiple disabilities (62% to 64%), also are students who are among the most likely to have experiences reported for life skills classes.

Instructional groupings. The extent to which students with disabilities are exposed to whole-class, small-group, and individual instruction in special education classes differs across disability categories (Exhibit 8-7). Although the majority of students in all categories experience whole-class instruction at least sometimes (64% to 83%, p<.001), many more students with learning disabilities or emotional disturbances experience whole-class instruction often (42% and 41%) than do students with autism or multiple disabilities (22% and 25%, p<.01 comparing students with emotional disturbances and multiple disabilities). These differences reflect in part the differences in the likelihood that these groups of students take an academic subject special education class.

Receipt of small-group instruction is less closely tied to the type of class taken. Forty-five percent or more of students with learning disabilities, mental retardation, or multiple disabilities receive small-group instruction often, but only 29% of those with visual impairments do so (p<.05 compared with students with learning disabilities). Students with visual impairments or autism are particularly likely to receive individual instruction from their special education teacher (55% and 54%), whereas students with learning disabilities or speech, orthopedic, or other health impairments are least likely to (36% to 39%, p<.05 comparing students with speech and visual impairments). Students with autism also are the most likely to receive frequent instruction from an adult other than the teacher (38% vs. 17% of students with learning disabilities, p<.001).

Exhibit 8-7 INSTRUCTIONAL GROUPINGS IN SPECIAL EDUCATION CLASSES, BY DISABILITY CATEGORY

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|---|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|
| Percentage with frequency of: | | | | | | | | | | | |
| Whole-class instruction | | | | | | | | | | | |
| Often | 41.8 | 38.1 | 34.6 | 40.7 | 29.5 | 26.8 | 36.4 | 34.7 | 22.5 | 30.7 | 24.6 |
| | (3.9) | (4.7) | (3.3) | (4.8) | (5.2) | (7.3) | (4.2) | (3.7) | (3.2) | (6.7) | (3.6) |
| Sometimes | 40.9 | 39.9 | 42.7 | 40.1 | 37.2 | 40.7 | 37.6 | 45.6 | 39.5 | 47.1 | 39.9 |
| | (3.9) | (4.7) | (3.4) | (4.8) | (5.5) | (8.1) | (4.3) | (3.9) | (3.8) | (7.3) | (4.1) |
| Small-group instruction | | | | | | | | | | | |
| Often | 45.0 | 40.6 | 48.8 | 39.8 | 38.1 | 28.7 | 36.9 | 31.6 | 39.1 | 40.8 | 46.6 |
| | (3.9) | (4.7). | (3.4) | (4.8) | (5.5) | (7.4) | (4.2) | (3.6) | (3.7) | (7.2) | (4.2) |
| Sometimes | 52.1 | 51.6 | 47.2 | 50.2 | 44.1 | 54.3 | 47.4 | 54.4 | 45.6 | 55.3 | 43.8 |
| | (3.9) | (4.8) | (3.4) | (4.9) | (5.7) | (8.2) | (4.4) | (3.9) | (3.8) | (7.3) | (4.1) |
| Individual instruction from a teacher | | | | | | | | | | | |
| Often | 38.9 | 37.0 | 50.0 | 44.4 | 44.8 | 55.3 | 35.5 | 38.6 | 53.6 | 41.6 | 46.4 |
| | (3.8) | (4.6) | (3.4) | (4.8) | (5.6) | (8.1) | (4.2) | (3.8) | (3.8) | (7.2) | (4.2) |
| Sometimes | 54.3 | 51.1 | 46.2 | 46.0 | 47.7 | 38.3 | 50.2 | 55.4 | 40.9 | 50.2 | 47.5 |
| | (3.9) | (4.8) | (3.4) | (4.9) | (5.6) | (7.9) | (4.4) | (3.9) | (3.8) | (7.3) | (4.2) |
| Individual instruction from an adult other than the teacher | | | | | | | | | | | |
| Often | 17.0 | 15.1 | 26.8 | 18.5 | 22.3 | 23.1 | 25.9 | 17.8 | 38.3 | 26.2 | 36.4 |
| | (3.0) | (3.5) | (3.1) | (3.8) | (4.7) | (6.9) | (3.9) | (3.0) | (3.8) | (6.5) | (4.1) |
| Sometimes | 29.4 | 33.1 | 40.7 | 34.7 | 31.2 | 46.2 | 40.2 | 43.5 | 35.0 | 34.9 | 43.9 |
| | (3.6) | (4.6) | (3.4) | (4.7) | (5.2) | (8.2) | (4.3) | (3.9) | (3.7) | (7.0) | (4.2) |

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

Instructional materials. Again, the frequency of use of instructional materials by students with different types of disabilities reflects in part the variations across categories in the kinds of classes about which their experiences are reported (Exhibit 8-8). For example, students with learning disabilities, emotional disturbances, or speech, sensory, or other health impairments are among the most likely to use textbooks often (61% to 72% do so, compared with 41% of students with autism, p<.001 for most comparisons), at least in part because they also are the most likely to have experiences reported for academic subject classes. In contrast, students with mental retardation, autism, or multiple disabilities are among the most likely to have their experiences reported for life skills classes and, therefore, also are among the most likely to use life skills materials often (35% to 40%, p<.001 compared with students with learning disabilities).

Exhibit 8-8 INSTRUCTIONAL MATERIALS USED IN SPECIAL EDUCATION CLASSES, BY DISABILITY CATEGORY

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|-------------------------------------|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|
| Percentage with frequency of using: | | | | | | | | | | | |
| Textbooks, worksheets, workbooks | | | | | | | | | | | |
| Often | 70.3 | 61.9 | 59.4 | 72.0 | 64.0 | 61.2 | 51.7 | 66.2 | 41.2 | 69.0 | 37.3 |
| | (3.6) | (4.6) | (3.4) | (4.3) | (5.4) | (7.9) | (4.4) | (3.7) | (3.8) | (6.8) | (4.0) |
| Sometimes | 24.3 | 30.9 | 26.0 | 20.0 | 31.1 | 25.8 | 28.5 | 27.5 | 34.3 | 23.7 | 36.1 |
| | (3.3) | (4.4) | (3.0) | (3.9) | (5.2) | (7.1) | (4.0) | (3.5) | (3.6) | (6.2) | (4.0) |
| Supplemental print materials | | | | | | | | | | | |
| Often | 27.7 | 21.0 | 29.5 | 26.8 | 22.0 | 19.7 | 20.4 | 19.2 | 18.6 | 38.6 | 24.8 |
| | (3.5) | (3.9) | (3.1) | (4.3) | (4.7) | (6.5) | (3.5) | (3.1) | (3.0) | (7.1) | (3.6) |
| Sometimes | 49.5 | 53.6 | 48.0 | 50.5 | 55.5 | 51.3 | 48.4 | 55.9 | 49.4 | 41.3 | 43.5 |
| | (3.9) | (4.8) | (3.4) | (4.9) | (5.6) | (8.1) | (4.4) | (3.9) | (3.8) | (7.2) | (4.2) |
| Lab equipment | . , | . , | . , | . , | . , | . , | . , | . , | . , | . , | . , |
| Often | 3.9 | 8.6 | 18.5 | 3.0 | 7.0 | 11.1 | 11.5 | 3.0 | 25.2 | 11.3 | 27.6 |
| | (1.5) | (2.7) | (2.7) | (1.6) | (2.9) | (5.1) | (2.8) | (1.3) | (3.3) | (4.6) | (3.7) |
| Sometimes | 16.4 | 18.1 | 20.4 | 21.0 | 21.3 | 22.9 | 18.5 | 21.1 | 25.1 | 24.1 | 17.4 |
| | (2.9) | (3.7) | (2.8) | (4.0) | (4.6) | (6.9) | (3.4) | (3.2) | (3.3) | (6.3) | (3.2) |
| Screen-based media | | | | | | | | | | | |
| Often | 6.3 | 8.8 | 12.2 | 6.1 | 8.0 | 10.3 | 7.7 | 3.9 | 9.8 | 17.7 | 10.0 |
| | (1.9) | (2.7) | (2.3) | (2.3) | (3.1) | (4.9) | (2.3) | (1.5) | (2.3) | (5.6) | (2.5) |
| Sometimes | 54.3 | 51.7 | 56.5 | 60.0 | 52.4 | 49.1 | 52.1 | 53.9 | 56.8 | 52.3 | 63.8 |
| | (3.9) | (4.8) | (3.4) | (4.8) | (5.6) | (8.1) | (4.4) | (3.9) | (3.8) | (7.3) | (4.0) |
| Life skills materials | | | | | | | | | | | |
| Often | 5.8 | 8.4 | 35.2 | 11.1 | 5.2 | 14.6 | 16.3 | 7.7 | 34.6 | 18.5 | 39.5 |
| | (1.8 | (2.7) | (3.3) | (3.1) | (2.5) | (5.7) | (3.3) | (2.1) | (3.6) | (5.7) | (4.1) |
| Sometimes | 18.1 | 20.0 | 35.3 | 27.3 | 23.0 | 24.8 | 31.3 | 20.8 | 30.6 | 38.2 | 32.5 |
| | (3.0) | (3.8) | (3.3) | (4.3) | (4.7) | (7.0) | (4.1) | (3.2) | (3.5) | (7.1) | (3.9) |

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

Frequent use of computers for any purpose is not common for students in any category (Exhibit 8-9). However, computers are most likely to be used often for doing word processing or spreadsheets and for accessing the Internet by students with speech, visual, or other health impairments; 20% to 25% use computers often for word processing or other applications, and 16% to 22% use them often for Internet access. Those with mental retardation are the least likely to use computers in these ways often (6% and 5%, p<.01 compared with students with speech impairments).

Exhibit 8-9 COMPUTER USE IN SPECIAL EDUCATION CLASSES, BY DISABILITY CATEGORY

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties | Deaf- Blind- ness |
|---|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|-------------------------|
| Percentage with frequency of using: Computers for word processing, spread- sheets, etc. | | | | | | | | | | | | |
| Often | 16.0 | 20.1 | 6.3 | 12.8 | 14.6 | 24.9 | 18.6 | 20.0 | 16.7 | 11.8 | 15.9 | 12.7 |
| | (2.9) | (3.8) | (1.7) | (3.2) | (4.0) | (7.1) | (3.4) | (3.1) | (2.9) | (4.7) | (3.1) | (6.6) |
| Sometimes | 48.5 | 44.8 | 37.5 | 45.9 | 52.6 | 48.3 | 46.1 | 47.8 | 26.9 | 45.4 | 30.8 | 48.5 |
| | (3.9) | (4.7) | (3.3) | (4.8) | (5.6) | (8.2) | (4.4) | (3.9) | (3.4) | (7.3) | (3.9) | (3.9) |
| Computers for Internet access | | | 、 , | () | | 、 <i>,</i> | 、 , | 、 , | × , | 、 <i>,</i> | | . , |
| Often | 10.0 | 16.3 | 5.0 | 12.1 | 13.5 | 22.0 | 11.1 | 15.5 | 10.5 | 7.7 | 7.4 | 5.5 |
| | (2.3) | (3.5) | (1.5) | (3.2) | (3.9) | (6.7) | (2.7) | (2.8) | (2.4) | (3.9) | (2.2) | (4.5) |
| Sometimes | 58.2 | 46.9 | 48.5 | 50.8 | 62.9 | 44.6 | 48.5 | 54.9 | 35.6 | 57.9 | 37.0 | 58.2 |
| | (3.8) | (4.7) | (3.4) | (4.8) | (5.5) | (8.1) | (4.4) | (3.9) | (3.7) | (7.2) | (4.0) | (3.8) |
| Computers for skills practice | ~ / | () | () | () | () | () | () | () | () | () | () | · · · |
| Often | 5.9 | 9.3 | 9.8 | 9.2 | 6.4 | 13.3 | 11.7 | 9.9 | 18.5 | 12.2 | 13.8 | 5.2 |
| | (1.8) | (2.8) | (2.0) | (2.8) | (2.8) | (5.6) | (2.8) | (2.3) | (3.0) | (4.8) | (2.9) | (4.4) |
| Sometimes | 33.4 | 31.3 | 42.3 | 35.5 | 29.9 | 41.4 | 32.7 | 31.8 | 35.1 | 35.9 | 36.3 | 33.4 |
| | (3.7) | (4.4) | (3.4) | (4.6) | (5.2) | (8.2) | (4.1) | (3.6) | (3.6) | (7.1) | (4.0) | (3.7) |

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

Instructional activities outside of class. Students in every disability category are more likely to have instructional activities that occur outside the classroom be school-based (22% to 47% experience them often) than community-based activities (8% to 40% experience them often, Exhibit 8-10). Field trips are the least likely to occur often (6% to 25%). Frequent excursions outside the classroom, whether school-based or in the community, are experienced by students in disability categories with higher rates of taking life skills classes, including students with mental retardation, autism, or multiple disabilities. Conversely, students whose special education classes are most likely to have an academic subject focus are among the least likely to have community-based experiences, including students with speech or hearing impairments.

Exhibit 8-10 INSTRUCTIONAL ACTIVITIES OUTSIDE OF SPECIAL EDUCATION CLASSROOMS, BY DISABILITY CATEGORY

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|--|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|
| Percentage with frequency of: | . <u> </u> | | | | | | | | | | |
| School-based experiences (e.g., library activities) | | | | | | | | | | | |
| Often | 23.2 | 22.1 | 43.6 | 22.9 | 21.7 | 31.5 | 31.2 | 21.5 | 46.6 | 33.6 | 37.0 |
| | (3.3) | (3.9) | (3.4) | (4.1) | (4.7) | (7.6) | (4.1) | (3.2) | (3.8) | (7.0) | (4.0) |
| Sometimes | 21.0 | 13.9 | 29.3 | 15.1 | 22.4 | 28.6 | 21.0 | 18.5 | 23.6 | 26.6 | 30.6 |
| | (3.9) | (4.3) | (3.4) | (4.8) | (5.3) | (8.1) | (4.3) | (3.8) | (3.7) | (7.3) | (4.1) |
| Field trips | | | | | | | | | | | |
| Often | 5.5 | 7.9 | 19.7 | 10.0 | 10.2 | 13.6 | 15.7 | 9.9 | 25.2 | 10.8 | 18.0 |
| | (1.8) | (2.6) | (2.7) | (2.9) | (3.4) | (5.7) | (3.2) | (2.3) | (3.4) | (4.5) | (3.2) |
| Sometimes | 21.0 | 13.9 | 29.3 | 15.1 | 22.4 | 28.6 | 21.0 | 18.5 | 23.6 | 26.6 | 30.6 |
| | (3.9) | (4.5) | (3.4) | (4.6) | (5.5) | (8.2) | (4.3) | (3.7) | (3.8) | (7.3) | (4.2) |
| Community-based experiences (e.g., taking public transportation) | | | | | | | | | | | |
| Often | 10.5 | 15.4 | 32.1 | 18.0 | 8.4 | 19.9 | 27.5 | 11.7 | 39.6 | 18.1 | 29.6 |
| | (2.4) | (3.5) | (3.2) | (3.8) | (3.2) | (6.6) | (4.0) | (2.5) | (3.8) | (5.6) | (3.8) |
| Sometimes | 21.0 | 13.9 | 29.3 | 15.1 | 22.4 | 28.6 | 21.0 | 18.5 | 23.6 | 26.6 | 30.6 |
| | (3.2) | (3.3) | (3.1) | (3.5) | (4.8) | (7.5) | (3.6) | (3.1) | (3.3) | (6.5) | (3.9) |

Source: NLTS2 Wave 1 student's school program survey. Standard errors are in parentheses.

Students' Participation in Special Education Classroom Activities

As they try to meet the needs of diverse students in special education classrooms, teachers make many decisions regarding how to organize instructional time effectively and efficiently. The activities they choose can reflect both a specific point in the curriculum and a strategy of how best to meet the needs of students. For example, at one point in a unit, teachers may have students answer questions and participate in class discussions, whereas at another, teachers may have students work together on presentations or projects. Instructional activities may vary greatly from classroom to classroom because of such factors as the subject matter being addressed, teacher style and preferences, students' ages and skill levels, and time of the school year. Skilled teachers are able to adjust the mix of these factors and activities to meet student needs (Gersten & Dimino, 2001; McLeskey & Waldron, 2002; Moody, Vaughn, Hughes, & Fischer, 2000; Pressley, Roehrig, Bogner, Raphael, & Dolezal, 2002; Vaughn, Hughes, Moody, & Elbaum, 2001).

To provide a national perspective on the participation in classroom activities by students in special education classes, NLTS2 asked teachers in these settings to report whether specific individual students engage in the activities noted in Exhibit 8-11 "often," "sometimes," or "rarely or never."

| All Special | | | |
|----------------------|---|---|--|
| Education Classes | Academic Classes | Study Skills Classes | Life Skills Classes |
| | | | |
| 57.9 (2.4) | 59.3 (3.2) | 64.3 (5.3) | 42.1 (4.9) |
| 34.3 (2.4) | 33.7 (3.1) | 31.3 (5.1) | 41.5 (4.8) |
| () | · · / | | |
| 54.6 (2.5) | 66.0 (3.1) | 37.2 (5.4) | 34.4 (4.7) |
| 35.3 (2.4) | 29.5 (3.0) | 50.2 (5.6) | 36.9 (4.8) |
| | | | |
| 47.9 (2.5) | 53.1 (3.2) | 40.0 (5.5) | 39.8 (4.8) |
| 42.0 (2.5) | 40.3 (3.2) | 46.8 (5.6) | 40.0 (4.8) |
| | | | |
| 46.2 (2.5) | 49.6 (3.2) | 38.1 (5.5) | 44.1 (4.9) |
| 44.5 (2.5) | 45.1 (3.2) | 46.7 (5.6) | 38.8 (4.8) |
| | | | |
| 28.5 (2.3) | 28.8 (3.0) | 27.5 (5.0) | 27.8 (4.4) |
| 59.9 | 61.2 | 59.3 | 57.5 (4.5) |
| (=. 1) | (0.2) | () | (-) |
| 12.8 (1.7) | 14.1 (2.3) | 9.4 (3.3) | 10.8 (3.1) |
| 36.3 | 42.6 | 19.3 | (0.1) 35.9 (4.7) |
| | 57.9 (2.4) 34.3 (2.4) 54.6 (2.5) 35.3 (2.4) 47.9 (2.5) 42.0 (2.5) 46.2 (2.5) 44.5 (2.5) 44.5 (2.5) 28.5 (2.3) 59.9 (2.4) 12.8 (1.7) 36.3 (2.4) | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |

Exhibit 8-11

With the exception of presenting in front of a group or class, the large majority of students with disabilities (88% to 92%) participate in class in the ways investigated in NLTS2 at least sometimes. Overall, students in special education classes are most likely often to work independently in their classes and take quizzes or tests (58% and 55%, p<.05 to p<.001 compared with other activities). Participating frequently in class discussion and responding orally to questions also are common (48% and 46%). Fewer students work with a peer partner or group often (28%). Only 13% of students with disabilities frequently perform or present in front of a group in their special education class, although about half do so at least sometimes (p<.001 compared with other activities).

The frequency with which students engage in these various activities mirrors the purposes of their classes. Special education classes that emphasize a specific academic subject use many methods that are similar to

general education settings, such as classroom discussions and test taking. Specifically, test taking, participating in class discussions, and responding orally to questions are particularly common in academic classes. Two-thirds of students in academic subject classes take tests often, compared with 37% and 34% of students in classes that focus on study skills or life skills (p<.001). Similarly, students in academic subject classes are more likely to participate in class discussions often (53%) than are students in other kinds of classes (40%, p<.05). And students in academic classes are more likely than those in study skills classes to respond orally to questions often (50% vs. 38%, p<.01).

Students who are in study skills classes would be expected to work independently more often than students in other settings, and they do so in comparison with students in classes that focus on life skills (64% vs. 42%, p<.01). They also are the least likely to present information to the

class or a group; only 29% reportedly do so at least sometimes, compared with 47% and 57% of students in life skills or academic classes (p<.05 and p<.001).

NLTS2 data show that the diversity of needs and capabilities of students with different disabilities is reflected in their frequency of participation in a variety of instructional activities. Students within each disability category participate to varying degrees in all of the instructional activities investigated in NLTS2 (Exhibit 8-12). The majority in each category participate in each activity at least sometimes, with the exception of presenting in front of a class or group. However, levels of participation in the mix of activities differ considerably across disability categories.

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|--|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-------------------------------|
| Percentage with frequency of: | | | | | | | | | | | |
| Working independently | | | | | | | | | | | |
| Often | 62.8 | 60.9 | 46.8 | 53.0 | 69.1 | 49.6 | 41.6 | 58.1 | 46.4 | 55.0 | 32.3 |
| | (3.8) | (4.6) | (3.4) | (4.8) | (5.2) | (8.1) | (4.3) | (3.8) | (3.8) | (7.3) | (3.9) |
| Sometimes | 31.5 | 37.2 | 42.0 | 36.1 | 26.8 | 40.6 | 39.2 | 36.2 | 38.0 | 37.8 | 38.6 |
| | (3.6) | (4.6) | (3.4) | (4.7) | (5.0) | (8.0) | (4.2) | (3.7) | (3.7) | (7.1) | (4.0) |
| Responding orally to questions | 、 , | 、 , | . , | ~ , | 、 , | () | . , | 、 , | , , | . , | 、 , |
| Often | 46.0 | 43.9 | 46.6 | 46.2 | 53.7 | 64.0 | 49.7 | 48.4 | 34.1 | 57.3 | 43.0 |
| | (3.9) | (4.7) | (3.4) | (4.9) | (5.7) | (7.8) | (4.4) | (3.9) | (3.6) | (7.3) | (4.1) |
| Sometimes | 46.1 | 46.9 | 40.9 | 45.3 | 31.7 | 29.7 | 35.4 | 46.6 | 38.1 | 36.2 | 31.3 |
| | (3.9) | (4.8) | (3.4) | (4.9) | (5.3) | (7.4) | (4.2) | (3.9) | (3.7) | (7.0) | (3.9) |
| Taking quizzes or tests | | | | | | | | | | | |
| Often | 61.3 | 49.2 | 42.4 | 46.0 | 50.5 | 47.6 | 44.9 | 57.8 | 24.6 | 56.9 | 25.0 |
| | (3.8) | (4.8) | (3.4) | (4.9) | (5.6) | (8.1) | (4.3) | (3.8) | (3.3) | (7.3) | (3.6) |
| Sometimes | 33.6 | 38.5 | 35.7 | 44.7 | 38.0 | 35.5 | 33.3 | 34.4 | 36.9 | 31.0 | 30.0 |
| | (3.7) | (4.7) | (3.3) | (4.8) | (5.5) | (7.8) | (4.1) | (3.7) | (3.7) | (6.8) | (3.8) |
| Participating in class discussion | | | | | | | | | | | |
| Often | 49.7 | 43.7 | 45.2 | 44.6 | 59.6 | 54.3 | 50.2 | 48.8 | 25.1 | 58.4 | 37.1 |
| | (3.9) | (4.7) | (3.4) | (4.8) | (5.6) | (8.1) | (4.4) | (3.9) | (3.3) | (7.2) | (4.0) |
| Sometimes | 43.4 | 44.0 | 38.8 | 43.5 | 28.8 | 31.9 | 31.5 | 41.8 | 35.0 | 32.0 | 33.8 |
| | (3.9) | (4.7) | (3.3) | (4.8) | (5.1) | (7.6) | (4.0) | (3.8) | (3.7) | (6.8) | (4.0) |
| Working with a peer partner or group | () | () | () | (-) | (-) | (-) | (-) | () | (-) | () | (-) |
| Often | 32.0 | 34.2 | 25.1 | 16.2 | 36.7 | 27.5 | 26.9 | 25.4 | 15.9 | 32.1 | 19.0 |
| | (3.7) | (4.5) | (3.0) | (3.6) | (5.4) | (7.3) | (3.9) | (3.4) | (2.8) | (6.8) | (3.3) |
| Sometimes | 60.9 | 53.0 | 62.8 | 56.5 | 47.1 | 44.6 | 53.2 | 56.6 | 51.7 | 54.1 | 56.9 |
| | (3.8) | (4.8) | (3.3) | (4.9) | (5.6) | (8.2) | (4.3) | (3.9) | (3.8) | (7.3) | (4.1) |
| Presenting in front of class or group | . , | . , | . , | . , | ``' | . , | . , | 、 , | . , | . , | . , |
| Often | 15.7 | 8.7 | 9.1 | 6.4 | 12.9 | 7.1 | 9.6 | 13.2 | 6.2 | 14.2 | 4.0 |
| | (2.9) | (2.7) | (2.0) | (2.4) | (3.8) | (4.3) | (2.6) | (2.6) | (1.9) | (5.1) | (1.6) |
| Sometimes | 38.0 | 42.1 | 31.5 | 33.1 | 29.1 | 37.6 | 35.5 | 37.9 | 23.1 | 36.1 | 38.7 |
| | (3.8) | (4.7) | (3.2) | (4.6) | (5.2) | (8.1) | (4.2) | (3.8) | (3.2) | (7.1) | (4.1) |

Exhibit 8-12 STUDENTS' PARTICIPATION IN SPECIAL EDUCATION CLASSROOM ACTIVITIES, BY DISABILITY CATEGORY

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

Some categories of student have a pattern of active participation. For example, students with learning disabilities or speech or hearing impairments are among the mostly likely often to work independently (61% to 69%) or with a peer partner or group (32% to 37%). Those with learning disabilities also are the most likely to present in front of a class or group and to take quizzes or tests often, frequent activities in the academic subject classes they are very likely to take. At the other end of the participation spectrum are groups of students who have a pattern of relatively low participation, particularly students with autism or multiple disabilities. They are the least likely to work independently—16% and 29% do not do so even sometimes—and to participate in class discussion (40% and 29%, respectively, do not participate even sometimes). Students with emotional disturbances join them in being particularly unlikely to work with a peer partner or group (16% and 19% do so often) or present in front of a group or class (4% and 6% do so often).

Students in other categories, however, have a less consistent pattern of participation. For example, students with visual impairments are among the most likely to respond orally to questions (64%) and participate in class discussions often (54%), but they are no more likely than others to work independently (50%), perhaps because of their difficulty in working with print media on their own. Students with emotional disturbances do not differ from their peers with learning disabilities in the likelihood of responding orally to questions or participating in class discussions often, but they are half as likely to work with a peer partner or group often (16% vs. 32%, p<.01).

Factors Considered Important in Evaluating Students' Performance

Evaluation of student performance is an essential part of the teaching and learning process for all students. For students with disabilities, it enables teachers to determine whether students have mastered material, achieved IEP objectives, and learned at the desired rate. Additionally, student evaluations are important mechanisms for communicating to parents, administrators, and students themselves how students are faring academically. Teachers can take numerous factors into account in evaluating performance, including academic ability, participation in classroom learning activities, effort, progress, and attitudes and behavior.

School staff respondents were asked to report for specific individual students in special education classes the importance of the factors indicated in Exhibit 8-13 in determining grades or formal progress reports; they indicated whether each is "very important," "somewhat important," or "not important."

Overall, daily class work is most likely to be considered very important; 88% of students have special education teachers who consider it so. However, students' behaviors are more likely to be considered very important than other aspects of students' school work. Three-fourths of students have teachers who consider attendance to be very important, with 64% and 62% having teachers who place similar importance on attitudes and behavior and on class participation, respectively. About half of students have teachers who consider homework, test results, and special projects to be very important. Evaluating student performance relative to a standard or to the class is less likely to be considered very important.

Exhibit 8-13 FACTORS CONSIDERED VERY IMPORTANT IN EVALUATING STUDENTS' PERFORMANCE IN SPECIAL EDUCATION CLASSES, BY SUBJECT AREA

| | All Special Education Classes | Academic Classes | Study Skills Classes | Life Skills Classes | | | | |
|--|-------------------------------------|---------------------|----------------------------|---------------------------|--|--|--|--|
| Percentage whose teachers report the factor to be very important | | | | | | | | |
| Student work | | | | | | | | |
| Daily class work | 87.8 | 87.8 | 83.8 | 90.0 | | | | |
| | (1.7) | (1.7) | (3.8) | (2.0) | | | | |
| Homework | 48.2 | 48.2 | 22.3 | 46.9 | | | | |
| | (2.7) | (2.7) | (5.0) | (3.4) | | | | |
| Test results | 54.2 | 54.2 | 35.8 | 56.1 | | | | |
| | (2.6) | (2.6) | (5.5) | (3.3) | | | | |
| Special projects/ | 48.3 | 48.3 | 43.8 | 48.5 | | | | |
| activities | (2.7) | (2.7) | (5.5) | (3.4) | | | | |
| Student portfolio | 35.1 | 35.1 | 34.5 | 35.2 | | | | |
| | (2.9) | (2.9) | (5.7) | (3.7) | | | | |
| Student behaviors | | | | | | | | |
| Attitude and behavior | 63.9 | 63.9 | 66.3 | 62.9 | | | | |
| | (2.4) | (2.4) | (4.7) | (3.1) | | | | |
| Class participation | 61.7 | 61.7 | 60.0 | 66.8 | | | | |
| | (2.4) | (2.4) | (4.9) | (3.1) | | | | |
| Attendance | 75.7 | 75.7 | 71.8 | 76.6 | | | | |
| | (2.1) | (2.1) | (4.5) | (2.8) | | | | |
| Standards | | | | | | | | |
| Performance relative to | 37.9 | 37.9 | 35.4 | 38.3 | | | | |
| a set standard | (2.4) | (2.4) | (4.8) | (3.2) | | | | |
| Performance relative to | 17.0 | 17.0 | 12.2 | 15.4 | | | | |
| class | (1.9) | (1.9) | (3.3) | (2.4) | | | | |
| Source: NLTS2 Wave 1 student's school program survey. Standard errors are in parentheses. | | | | | | | | |

There is considerable consistency in the importance placed on evaluation criteria across types of classes. The only differences are apparent for the importance placed on homework and test results. These are much less likely to be considered very important in study skills classes (22% and 36%) than other kinds of classes (p<.001 and p<.01 compared with other kinds of classes).

Although there are no differences in evaluation criteria across grade levels or for students with different demographic characteristics, disability category differences are apparent. However, they affect some evaluation criteria more than others (Exhibit 8-14). For example, 75% or more of students in every category have teachers who report that daily class work is very important in evaluating students' performance. There is relative consensus on the importance of student behaviors, as well; fewer than 20 percentage points differentiate the categories most and least likely to have teachers who consider those factors to be very important. For example, 60%

to 77% of students across categories have teachers who report that attitudes and behavior are very important, and between 64% and 82% have teachers who feel similarly about attendance.

However, there is much greater variability across categories in aspects of student work other than daily class work. The importance placed on homework ranges particularly widely across categories, from 20% of students with multiple disabilities whose special education teachers report that homework is very important in evaluating performance, to 63% of students with visual impairments whose teachers place similar importance on homework.

Test taking, homework, special projects, and performance relative to a set standard are particularly likely to be considered very important by teachers of students in categories that are most likely to have their classroom experiences reported for academic subject classes—students with learning disabilities, emotional disturbances, and speech or sensory impairments. They are least likely to be considered very important for categories of students who are more likely to have their experiences reported for life skills classes—students with mental retardation, autism, and multiple disabilities.

Exhibit 8-14 FACTORS CONSIDERED VERY IMPORTANT IN EVALUATING STUDENTS' PERFORMANCE IN SPECIAL EDUCATION CLASSES, BY DISABILITY CATEGORY

| | Learning Dis- ability | Speech/ Language Impair- ment | Mental Retar- dation | Emotional Distur- bance | Hearing Impair- ment | Visual Impair- ment | Ortho- pedic Impair- ment | Other Health Impair- ment | Autism | Trau- matic Brain Injury | Multiple Disabili- ties |
|---|-----------------------------|--|----------------------------|-------------------------------|----------------------------|---------------------------|------------------------------------|------------------------------------|---------------|-----------------------------------|-------------------------------|
| Percentage whose teachers report the factor to be very important | | | | | | | | | | | |
| Student work | | | | | | | | | | | |
| Daily class work | 89.0 | 87.9 | 84.0 | 90.0 | 90.4 | 91.2 | 81.5 | 86.5 | 79.5 | 85.7 | 75.4 |
| | (2.5) | (3.1) | (2.6) | (3.0) | (3.4) | (4.6) | (3.5) | (2.7) | (3.2) | (5.1) | (3.8) |
| Homework | 53.3 | 49.6 | 26.9 | 54.2 | 58.5 | 62.7 | 39.2 | 47.4 | 26.0 | 40.0 | 20.1 |
| | (4.1) | (4.9) | (3.4) | (5.1) | (5.9) | (8.4) | (4.5) | (4.1) | (3.9) | (7.5) | (4.2) |
| Test results | 60.2 | 52.5 | 35.1 | 55.6 | 54.0 | 53.5 | 47.5 | 53.8 | 34.0 | 48.4 | 23.7 |
| | (4.0) | (4.9) | (3.5) | (5.1) | (5.7) | (8.9) | (4.5) | (4.0) | (4.1) | (7.6) | (4.3) |
| Special projects/activities | 53.0 | 46.9 | 38.4 | 38.9 | 52.5 | 68.3 | 44.6 | 49.5 | 37.6 | 50.3 | 33.3 |
| | (4.1) | (5.1) | (3.6) | (5.2) | (5.9) | (8.3) | (4.6) | (4.1) | (4.2) | (7.7) | (4.5) |
| Student portfolio | 36.0 | 41.2 | 36.6 | 28.5 | 30.8 | 48.6 | 35.6 | 27.3 | 42.2 | 35.8 | 41.1 |
| | (4.7) | (5.8) | (3.8) | (5.3) | (6.2) | (9.8) | (4.8) | (4.3) | (4.4) | (8.7) | (5.0) |
| Student behaviors | | | | | | | | | | | |
| Attitude and behavior | 62.3 (3.8) | 63.2 (4.6) | 62.7 (3.3) | 74.9 (4.2) | 68.7 (5.2) | 77.0 (6.9) | 59.8 (4.3) | 62.0 (3.8) | 64.9 (3.6) | 71.5 (6.7) | 60.0 (4.1) |
| Class participation | 65.9 (3.7) | 55.4 (4.7) | 55.6 (3.4) | 56.8 (4.9) | 67.4 (5.3) | 64.0 (7.9) | 58.8 (4.3) | 51.5 (3.9) | 48.2 (3.8) | 55.7 (7.3) | 50.8 (4.2) |
| Attendance | 76.3 (3.3) | 74.1 (4.2) | 72.0 (3.1) | 82.1 (3.8) | 77.5 (4.7) | 79.9 (6.7) | 73.1 (3.9) | 74.6 (3.4) | 64.1 (3.6) | 66.4 (6.9) | 65.1 (4.0) |
| Standards | | | | | | | | | | | |
| Performance relative to a | 40.4 | 42.2 | 31.4 | 34.7 | 30.7 | 59.4 | 34.9 | 40.4 | 28.4 | 36.1 | 29.9 |
| set standard | (3.9) | (4.7) | (3.2) | (4.7) | (5.2) | (8.1) | (4.2) | (3.9) | (3.4) | (7.1) | (3.8) |
| Performance relative to the | 19.3 | 17.0 | 10.7 | 16.0 | 15.1 | 26.4 | 15.7 | 16.8 | 8.8 | 12.2 | 11.4 |
| class | (3.1) | (3.6) | (2.1) | (3.6) | (4.1) | (7.3) | (3.2) | (2.9) | (2.2) | (4.8) | (2.7) |
| (3.1) (3.0) (2.1) (3.0) (4.1) (1.3) (3.2) (2.9) (2.2) (4.0) (2.7) | | | | | | | | | | | |

Source: NLTS2 Wave 1 student's school program survey.

Standard errors are in parentheses.

Summary

This chapter has examined the experiences of secondary school students with disabilities in a variety of special education classes, in part in an effort to illuminate "what's special about special education." NLTS2 findings demonstrate that secondary special education classes provide students instruction in a variety of subjects and skills. The majority receive instruction for an academic subject, such as math or language arts, whereas others are in special education classes that focus on acquiring basic academic skills or independent life skills, or where they receive help with study habits and homework. Some students in every disability category are in each of these types of special education classes, and they experience a range of instructional groupings and activities in them. However, there are important differences in what goes on in special education classes with different emphases, reflecting a tailoring of practices to both content and student differences.

Although special education classes that focus on academic subjects deal with content that mirrors subjects in general education classrooms, some tailoring of classroom practices is apparent. Students in such classes frequently are taught with a general education curriculum that has had some modification. Teachers in these classes often use both whole-class and small-

group instruction with their students to provide a range of learning experiences. Yet classroom practices reflect the demands of academic subject matter, whether or not students have disabilities. Students in subject-specific academic special education classes are more likely than their peers in other kinds of special education classes to take tests, respond orally to questions, and participate in class discussions often. Three-quarters of students have teachers who use textbooks, worksheets, and workbooks often—more than any other instructional materials. Computers are used rarely by students in academic subject classes. Further, although about one-quarter of students in academic subject classes frequently experience school-based instructional activities outside of their classrooms (e.g., trips to the school library), they rarely go on field trips or have community-based instructional experiences.

Special education classes that focus on study skills have a different mix of students than academic-subject classes and a different purpose; hence, classroom practices also are significantly different in many respects from those described above. Students with disabilities in study skills classes have teachers who use individualized instruction more than whole-group or small-group instruction. Most of these classes are taught without a specific curriculum so that classroom activities can be adapted to individual students' needs. Yet half of the students in these classes have teachers who use textbooks, worksheets, and workbooks often, and about one-third are frequently taught by using other print materials. Reflecting the individualized emphasis, the majority of students in study skills classes than in other types of classes use computers for word processing or creating spreadsheets as part of their independent work. Although one of five students in study skills classes experience school-based instruction outside of their classrooms, they rarely experience community-based activities or field trips.

The greatest specialization in instruction is found in special education classes that teach life skills. Students in these classes frequently are taught in small groups or receive individualized instruction, and three-quarters of students are in classes that use a specialized curriculum. Although fewer students in these than in other kinds of classes frequently respond orally to questions, work independently, or use textbooks, their teachers still use these instructional activities and materials more often than other teaching methods. On the other hand, teachers of students in life skills classes use life skills materials far more than do teachers of other classes, as would be expected. Students in life skills classes also are more likely than their peers to have frequent instructional experiences outside the classroom.

Across disability categories, teachers in all three types of classes base their student evaluations on daily class work, attitudes and behavior, class participation, attendance, and special projects. The importance of test results or homework plays a greater evaluative role for students in subject-specific academic and study skills classes than for students in life skills classes.

Although a range of curricula, instructional groupings, activities, materials, and evaluation criteria are used for students across the disability categories, many of the differences in the mix of classroom experiences for students with disabilities reflect the differences across disability categories in their likelihood of taking different kinds of classes.