Speech-language-hearing researchers may be confronted with three barriers in using secondary data sets to investigate research questions of interest to the field. First, many data sets may not have adequate numbers of participants with speech-language or hearing impairments to conduct meaningful analyses with these subgroups. This may be due to low incidences of these delays within the sample, or in many cases, selection criteria that systematically exclude these individuals from participating. Second, studies may have sufficient numbers of individuals of interest to speech-language-hearing researchers because of large sample sizes or purposive sampling procedures that target these individuals. However, there may be concerns about the extent to which the results from a study’s sample generalize to a larger population, thus raising questions about the external validity of study findings.

ABSTRACT: Purpose: The Early Childhood Longitudinal Study—Kindergarten Cohort (ECLS–K; U.S. Department of Education, 2000) includes comprehensive assessments of home, classroom, and school contexts and developmental outcomes for a nationally representative sample of more than 20,000 children who began kindergarten in 1998–1999. The purposes of this article are to describe the ECLS–K and provide an example of how to use these data to advance speech-language-hearing research.

Method: Special education questionnaires were analyzed from subsamples of children with diagnosed disabilities. The frequencies of different disabilities at kindergarten, 1st, 3rd, and 5th grade were calculated, and for children whose primary diagnosis was speech-language impairment, special education experiences were summarized.

Results: There are relatively large subsamples of children with learning disabilities, physical disabilities, and speech-language impairments. Among children with speech-language impairments, there is substantial variability in special education experiences with regard to the amount of time children received services, location of services, types of instructional methods, and extent to which modifications were made to the general education curriculum.

Conclusion: The comprehensive assessments, large subsamples of children with diagnosed disabilities, and detailed information about special education services makes the ECLS–K a useful resource for advancing the development of theory, effective classroom practices, and evidence-based policies that promote the well-being of children with special needs.

KEY WORDS: secondary analysis, Early Childhood Longitudinal Study, speech-language impairment
of the findings. Third, data collected as a part of prior studies that consider the well-being and development of children may not include information about the multiple contexts within which development occurs (i.e., families, classrooms, and schools), the comprehensive assessments of inputs, the processes and outcomes of development, or the types of services received by children with special needs.

In this article, we describe the Early Childhood Longitudinal Study—Kindergarten Cohort (ECLS–K; U.S. Department of Education, 2000), a large-scale study that includes a nationally representative sample of more than 20,000 kindergartners and their teachers and schools. The study follows the developmental course of these children from their kindergarten year in 1998 through their eighth grade year in 2007. The study includes comprehensive assessments of the multiple contexts that contribute to development as well as assessments of multiple developmental domains using inclusive procedures that accommodate the needs of students with disabilities. In addition, the ECLS–K includes a questionnaire that was completed by the primary special education teacher for any child who was receiving special education services at each assessment period. This questionnaire documents the nature of the child’s diagnosed disability, characteristics of the child’s special education experiences, and the teacher’s professional background. The large subsamples of children who experience diagnosed disabilities and the rich information about their families, classrooms, schools, and special education services offers speech-language-hearing researchers opportunities to investigate the complex processes of development among children with special needs—the results of which have the potential to inform policies and classroom practices that result in learning environments that most effectively improve developmental outcomes for these children.

In the first section of this article, we describe the ECLS–K study, including why the study was conducted, what data are available, how data have been previously used, and how to access the data, with particular emphasis on those data that are relevant to children with diagnosed disabilities. In the second section of the article, we present results of analyses that (a) describe the frequency of different diagnosed disabilities at each assessment period and (b) summarize the special education experiences of children whose primary diagnosis was speech-language impairment.

**The ECLS–K**

*Why the study was conducted.* Recently occurring societal shifts in the United States—a rising proportion of single-parent families, an increasing number of working mothers, changing demographic characteristics, and an increasing number of children with special needs—prompted a national study of children who represent the population of children in the United States who began kindergarten in 1998. The U.S. Department of Education and the National Center for Education Statistics (NCES), with assistance from other agencies within the U.S. Department of Health and Human Services and the U.S. Department of Agriculture, initiated the ECLS–K to understand the complex processes of children’s development and to identify the contributions of families, classrooms, and schools that effectively promote child development.

The ECLS–K is intended to provide researchers from many fields with the possibility of studying factors such as cultural differences in educational preferences, family processes, variability in child learning styles, and educational resources afforded to children during elementary and middle school, all of which have been established as important contributors to children’s socioemotional and academic growth in subsequent grades (Bronfenbrenner, 2005; Perry & Weinstein, 1998). Of particular interest to speech-language-hearing researchers is the special education supplemental questionnaire. The U.S. Department of Education, Office of Special Education Programs (OSEP) provided consultation and financial support for the collection of information about the experiences of children who have diagnosed special needs and the characteristics of teachers who work with these children.

*How data were collected.* The goal of the ECLS–K was to assess the multiple contexts within which children develop (e.g., home, classroom, and school) and children’s developmental outcomes. Data collection procedures to assess this wide range of inputs, processes, and outcomes included interviews, observations, questionnaires, and direct assessments. To assess the home environment, parents provided information about the family through computer-assisted telephone interviews. In kindergarten and first grade, parent interviews were conducted twice each year (fall and spring); in third, fifth, and eighth grades, parent interviews were conducted in the spring only. Questions on the parent interviews were translated into Spanish, and if the parents spoke a language other than English or Spanish, translators were used to preserve the ethnic and linguistic diversity of the sample. All interviewers were trained to conduct interviews in both English and Spanish; however, for Spanish, Chinese, Lakota, and Hmong interviews, the interviewer used a hardcopy translated questionnaire and then entered the parents’ responses into a computer assisted interview program to ensure accuracy of the data collected. To assess the classroom and school environments, teachers of participating children completed self-administered questionnaires about the classroom environment and the school environment. Kindergarten teachers completed a teacher questionnaire in the fall and spring; first-, third-, fifth-, and eighth-grade teachers completed the teacher questionnaire in the spring only. At each assessment period, a school administrator completed a questionnaire about characteristics of the school environment.

Children’s developmental outcomes were assessed using multiple procedures. Direct assessments of children’s reading, mathematics, and general knowledge were conducted at seven time periods: fall and spring of kindergarten (1998–1999); fall and spring of first grade (1999–2000); and spring of third (2002), fifth (2004) and eighth (2007) grades. Children’s fine and gross motor skills were assessed in kindergarten only. Assessments were untimed, one-on-one, and were conducted at the child’s school with a trained ECLS–K assessor. Children’s competencies in the areas of language/literacy, mathematics, general knowledge, and social skills were also assessed by teachers using questionnaires at each of the seven data collection periods, and parents provided reports of their child’s social skills and health during the telephone interviews.

Direct assessments of children who spoke multiple languages were conducted in the language that was most suitable for the child. Whether children should be assessed in a language other than English was determined by field supervisors who used school records and teacher reports of children’s language proficiencies. Identified children (15% of the sample at kindergarten entry) were first assessed using the English Oral Language Development Scale (OLDS; Rock, Pollack, & Hausken, 2002). Spanish-speaking

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1Data collected in 2007 were not available at the time this article was written.
children whose scores fell below the cutoff for English proficiency were assessed using a Spanish translated form of the mathematics assessment, the Spanish Oral Language Development Scale (Spanish OLDS; Rock et al., 2002), and the psychomotor assessment. The following steps were taken in developing the Spanish version of the mathematics assessment to ensure that the English and Spanish versions measured equivalent constructs: English test items were translated to Spanish and back-translated to English; two Spanish-speaking mathematics experts reviewed the instrument; and differential item functioning analyses were conducted to compare the relative difficulty of each item on the two versions.

Children whose scores fell below the cutoff for English proficiency and who spoke a language other than English or Spanish were excluded from the direct assessment portion of the battery. These children were screened at a later point to determine whether their English proficiency had progressed to the point where English assessments could be used. Once a child had reached the target score for English proficiency, he or she was subsequently assessed using the English versions of the direct assessments. At fall of kindergarten, of the 15% of children who were assessed with the English OLDS, 58% of the Spanish-speaking children scored below the cutoff and thus completed the Spanish language assessment. Thirty-nine percent of the children who spoke a language other than English or Spanish scored below the OLDS cutoff for English proficiency and were not assessed at that time.

The direct assessments of children’s outcomes were developed to maximize the inclusion of children for whom English was a second language and children with special needs. Accommodations were made to the assessment procedures to fit the specific needs of children with disabilities. To identify appropriate accommodations, a child’s disability status was first identified by the field assessor using school disability criteria that were included in the child’s school records (e.g., individualized education plan [IEP], individualized family service plan [IFSP], and 504 Plan). Specific accommodations included providing extended time to complete the assessments; ensuring that seating and lighting were comfortable; scheduling the assessments at the most convenient times of day; having assistive aids present during the assessments; and adapting the procedures for children with hearing aids, voice synthesizers, braces, and canes. Children who required the use of Braille, large print, and sign language were not eligible for the direct assessments; however, all other data were collected for these children. Overall, 88 children—roughly 4 out of every 1,000 children—were excluded in the fall of kindergarten direct assessments due to disability status. One hundred eighty-two—roughly 9 out of every 1,000 children—received accommodations during the direct assessments.

For children who did not participate in the direct assessments in the spring of kindergarten and first grade because of a physical or mental disability, information about their developmental outcomes was collected using the Adaptive Behavior Scale (ABS; Lambert, Nihira, & Leland, 1993), which was completed by special education teachers to assess children’s independent functioning, language development, and mathematical concepts of numbers and time. At each assessment period, the primary special education teacher for any child who received special education services also completed a special education supplementary questionnaire that collected information about the teacher’s professional background, the nature of special education services received by the child with a diagnosed disability, and accommodations and inclusion of children in the general education classroom. The primary special education teacher
was assessed only during the fall of the children’s kindergarten year. Eighty-two children — approximately 4 out of every 1,000 children — were excluded from fine motor and/or gross motor assessments in kindergarten due to physical limitations.

Direct assessments of science and general knowledge, reading, and mathematics were adapted from commercial assessments, were taken from other studies conducted by the NCES (e.g., National Assessment of Educational Progress [NAEP], National Education Longitudinal Study of 1988 [NELS:88], and Education Longitudinal Study of 2002 [ELS:2002]; Rock et al., 2002), or were specifically created for the study. The methods of administration varied across assessment periods according to the participants’ ages. For example, assessments that were conducted in eighth grade were self-administered via paper-and-pencil tests, whereas assessments of kindergarten through fifth-grade children used computer-assisted procedures that were individually administered by a trained assessor. These computer-assisted assessments followed a two-stage adaptive testing procedure. In the first stage, a routing test was administered that consisted of items spread over a broad range of difficulty. The results of the routing test were used to determine the difficulty level of the second-stage test, which included items that overlapped between the adjacent forms. The purpose of the two-stage format was to help ensure that children were tested using items that were most appropriate for their level of achievement, which minimizes the potential for floor and ceiling effects and results in more efficient testing procedures.

Science and general knowledge assessments were designed to measure children’s growth in social and biological understanding. Specifically, science and general knowledge measures used in kindergarten and first grade assessed children’s knowledge and skills in natural sciences and social studies, and the science assessments in later grades measured the children’s knowledge about earth/space, physical, and life science. Reading and mathematics assessments were administered at each assessment period. The reading assessment was specifically designed to measure skills in the following six areas: basic skills (familiarity with print and recognition of letters and phonemes), vocabulary, initial understanding, developing interpretation, personal reflection and response, and demonstrating a critical stance, which are skill areas that were identified in the Reading Framework for the 1992 and 1994 NAEP study (National Assessment Governing Board, 1994). The mathematics assessment was derived from the Mathematics Framework for the 1996 NAEP study (National Assessment Governing Board, 1996), which is based largely on the National Council of Teachers of Mathematics’ Commission on Standards for School Mathematics (NCTM, 1989). Areas assessed included children’s conceptual/procedural knowledge and problem solving across grade levels, with concepts representing number sense, properties, and operations constituting the largest content features at all grade levels. At the different time points that reading and mathematics were assessed, different test forms were used that included some items that were common across forms and other items that were different.

Different types of scores from these direct assessments of children’s developmental competencies are available, including raw scores that represent the number of items the respondent correctly answered; standardized scores (T scores) that represent the child’s score relative to the population of children who are the same age; and Item Response Theory scores that place children who took different test forms of the adaptive tests on the same scale. More information about the direct assessments and reports about their psychometric properties are available (Pollack, Atkins-Burnett, Najarian, & Rock, 2005; Pollack, Atkins-Burnett, Rock, & Weiss, 2005; Rock et al., 2002).

**How data have been previously used.** The ECLS–K longitudinal data set has provided researchers with opportunities to examine a variety of contextual factors as they relate to children’s socioemotional and academic adjustment. Publications resulting from these data have come in a variety of formats, including books and chapters, technical and policy reports, and publications in peer-reviewed journals.² In addition, the availability of this comprehensive longitudinal data set has also yielded valuable findings on how factors such as linguistic differences, English proficiency, and learning disabilities are related to the socioemotional and academic adjustment of various ethnic groups during early childhood.

**How to access the data.** The ECLS–K data are available for both longitudinal and cross-sectional analyses via public-use and restricted-use data files. The difference between public-use and restricted-use data files is that in the public-use files, some values were altered in accordance with the Privacy Act of 1974 to minimize the likelihood that individual schools, teachers, parents, or children are identifiable. Specifically, the following modifications were made to some variables in the public-use files: (a) outliers were top or bottom coded to prevent identification of unique schools without affecting data quality, (b) variables with too few cases were unavailable, and (c) some continuous variables were changed into categorical variables and some categorical variables were collapsed. Only a few variables were modified in the public-use data, and NCES recommends that researchers first review the public-use files to determine whether these data can be used to address their research questions. However, variables that were modified in the public-use files tend to relate to subpopulations such as children with disabilities or with non-English home languages that are of central interest to speech-language-hearing researchers; thus, the restricted-use files may be more appropriate than the public-use files to address topics related to speech, language, and hearing services in schools.

Researchers may obtain the public-use ECLS–K data files (K–5 were available at the time this article was written) for no charge.³ Restricted-use data files, of which the special education data files are categorized, may be obtained by special request. Restricted data licenses are provided to qualified researchers, and NCES will only accept license applications through its electronic application system. In order to qualify to use the restricted data, interested researchers must submit a formal request (including title of database requested, description of project, name/title of senior officials, and estimated loan period), license document, notarized affidavits of nondisclosure, and security forms.

Researchers receive a separate CD-ROM for each study year in which data were collected that contains data files, electronic codebooks, manuals, surveys, and other instructive information. After downloading software available on the CD-ROM that allows access to information, the researcher begins the following process to extract the data into a data analysis software package:

- Select a “catalog” that includes variables assessing characteristics of either children, teachers, or schools.

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³The public-use ECLS–K data files are available either by calling the toll-free ED Pubs telephone number (877-433-7827) or by submitting a request online at the ED Pubs Web site (edpubs.ed.gov).
METHOD

An Example of Using the ECLS–K Database

As described above, the ECLS–K comprises a nationally representative sample of children who entered kindergarten in the fall of 1998, and it includes extensive information about the multiple domains of children’s development from kindergarten through eighth grade as well as the ecological settings that promote development. In addition, the study includes information about special education services that any child received in kindergarten, first, third, fifth, and eighth grades. These data enable speech-language-hearing researchers to address research questions that build on the current knowledge base for children with special needs. For example, the study may be used to examine developmental trajectories across multiple domains for children with different diagnosed disabilities; compare family, school, and classroom characteristics that positively contribute to the development of children with and without special needs; and identify the characteristics of the special education experiences contributing to language development for children whose primary diagnosis is speech-language impairment. Results of these and other research questions can contribute to the development of theory, effective classroom practices, and evidence-based education policies that contribute to the well-being of children with different special needs.

In this section, we use data collected from special education teachers to address the following two research questions.

- What is the frequency of different diagnosed disabilities for children who received special education services in kindergarten, first grade, third grade, and fifth grade?
- For children whose primary diagnosis was speech-language impairment, what types of special education experiences did they have?

Specifically, we describe the amount of time each child was scheduled to receive services, the location where the services were provided, the types of instructional methods used with the child, and the extent to which modifications were made to the general education curriculum. The purposes of this descriptive study are to familiarize speech-language-hearing researchers with the subsample of children who received special services and to summarize the types of special education services that were received by children whose primary diagnosis was speech-language impairment. Our purpose of conducting this descriptive study is to generate interest in this data set among speech-language-hearing researchers, who in turn will use these data to develop and test research questions that advance theory, policy, and practice that leads to the positive development of children with special needs.

Participants

The total sample included in the ECLS–K was 21,260 children enrolled in kindergarten during 1998–1999 who had information resulting from either a child assessment or parent interview in the fall and/or spring of kindergarten. The children were from schools that were evenly distributed across all regions of the United States and that represented territories ranging from large cities to rural locales. The sampling plan proceeded in three stages: selection of counties or groups of counties, selection of schools within counties, and selection of children within schools. One hundred counties or groups of counties were selected from within strata defined by census area and demographic characteristics. Within each county or group, schools were selected following stratification by public/private status, size of the school, and proportion of Asian-Pacific Islander students. Within 1,280 schools, 24 students were targeted for selection. For each targeted child, schools provided contact information for the child’s parent(s) or guardian(s), who were contacted and asked to provide consent for their child to participate in the study. On average, consent was received for 16.6 children per school.

This original sample contained 51% boys (n = 10,866) and 49% girls (n = 10,381) (13 children had missing information for gender) from households with a diverse range of maternal education. Specifically, 14% of the children had mothers who had less than a high school diploma, 30% had mothers who received a high school diploma or equivalent, 32% had mothers who attended some college, and 23% had mothers with a bachelor’s degree or higher. The participating children were ethnically diverse and included 11,723 (52%) Caucasian, 3,204 (14%) African American, 3,732 (16%) Hispanic, and 1,355 (6%) Asian American children and families, which is similar to the total estimates of children enrolled in kindergarten at that time that was provided by the U.S. Census Bureau (U.S. Census Bureau, 2001). Because language minority children were a population of special interest for analytic purposes, additional students were added to the study in first grade to preserve the ethnic and language diversity of the total sample.

The subsample of children in this study included any child with a diagnosed special need whose primary special education teacher completed the supplementary questionnaire about the child’s special education experiences and provided information about the child’s primary disability category. In kindergarten, of the 21,260 children with any information collected during the school year, teachers provided information about special education services for 784 children (3.7%), of which 676 (3.2%) had a response to the child’s primary disability category. In first grade, of the 17,487 children with any information collected during the school year, teachers provided information about special education services for 795 children (4.5%), of which 627 (3.6%) had a response to the child’s primary disability category. In third grade, of the 15,305 children with any information collected during the school year, teachers provided information about special education services for 1,165 children (7.6%), of which 830 (5.4%) had a response to the child’s primary disability category. In fifth grade, of the 11,820 children...
with any information collected during the school year, teachers provided information about special education services for 1,031 children (8.7%), of which 925 (7.8%) had a response to the child’s primary disability category. Thus, this study included descriptive information about the primary disability category for 676 kindergartners, 627 first graders, 830 third graders, and 925 fifth graders.

**Measure**

The special education teacher questionnaire included two sections. The first section collected information about the special education teacher’s background and experience. Items measured the teacher’s gender, age, race/ethnicity, teaching experience, educational background, special education teaching background, location of services provided by the teacher, and hours of services the teacher provided to children each week. The second section collected information about the specific child receiving special education services. The first question asked teachers to identify the child’s primary disability category. Response choices were (a) learning disability, (b) serious emotional disturbance, (c) speech or language impairment, (d) mental retardation, (e) blind/visual impairment, (f) deaf/hard of hearing, (g) health impairment, (h) physical impairment, (i) multiple impairments, (j) deaf/blind, (k) developmental delay, (l) autism, and (m) traumatic brain injury. The remaining sections of the child portion of the special education teacher questionnaire assessed the types of services the child received during the school year. Items assessed a broad range of characteristics of each child’s special education services, including the nature of the services received, IEP goals, teaching practices, assistive technologies, collaboration with parents/general education teachers, and information about formal evaluations.

Four sets of items were used in this study to describe the special education experiences of children whose primary diagnosis was speech-language impairment.

**Amount of time per week special services were scheduled.** The amount of time that special education services were scheduled for each child was assessed by the following question: “Approximately how many hours of direct special education and related services (that is, services provided directly to the student from a teacher or another adult) was this student scheduled to receive this school year?” Teachers responded by writing the number of hours and minutes per week that the child was scheduled to receive services.

**Location of services.** The location of special education services each child received was assessed by asking teachers the following: “Approximately what percentage of the total weekly hours in school did this student receive special education and related services outside of a general education classroom?” Seven response categories were provided—0%, 1%–10%, 11%–25%, 26%–50%, 51%–75%, 76%–99%, and 100%—and teachers were instructed to circle one. A small proportion of children (7% of kindergartners, 6% of first graders, 5% of third graders, and 9% of fifth graders) whose primary diagnosis was speech or language impairment received services outside of the general education classroom for 26% or more of the total weekly hours the child was in school. As such, these response categories were collapsed into one (26%–100%).

**Instructional methods.** Special education teachers reported (Yes/No) whether they used each of the following teaching practices and methods with the student: one-on-one instruction, small-group instruction, large-group instruction, cooperative learning, peer tutoring, computer-based instruction, direct instruction, cognitive strategies, self-management, and behavior management.

**Modifications.** Special education teachers were asked to describe the extent to which modifications were made in the general education classroom for the student. Specifically, teachers were asked to circle the response that best describes the curriculum materials that were used with the student: (a) General education curriculum materials were used without modification; (b) Some modifications in general education curriculum materials were made; (c) Substantial modifications in general education curriculum materials were made; (d) Specially designed commercial materials were used; (e) Don’t know; and (f) Student not in this setting.

**Analysis**

Simple descriptive statistics were used in this study that documented the frequency and percentage of children in each disability category; for any child whose primary diagnosis was speech or language impairment, summary statistics were reported that describe the amount, location, and type of instructional methods used with each child as well as the extent to which curricular modifications were made for the child in his or her general education classroom. These results are descriptive in nature and are intended to inform speech-language-hearing researchers about the subsamples of children and types of information collected about children with special needs.

The greatest strengths of the ECLS–K are its large sample size and its sampling design, which resulted in a cohort of children who represent the population of entering kindergartners in 1998–1999. There are two related considerations for researchers when interpreting the results and generalizing findings to the population. First, it is important to consider the magnitude of results in multiple ways. Due to the large sample sizes, very small coefficients are likely to be statistically different than zero, because of the small standard errors that indicate high confidence in each estimate. Thus, statistical significance, effect size estimates, and estimated means for outcome variables at different levels of predictors of interest are methods that may be used to describe the results in terms of both their statistical significance and their meaningful significance. Second, for results to generalize to the population of children who began kindergarten in the United States in 1998–1999, researchers must apply sampling weights in analyses to account for attrition and nonresponse of specific subgroups. The specific weight that is applied depends on whether the analysis is cross-sectional or longitudinal; whether the unit of analysis is the school, teacher, or child; and the data sources and instruments that are used in the study. Guidance for choosing the appropriate sampling weights is given in the ECLS–K Base Year Public Use Data Files and Electronic Codebook (NCES, 2002).

**RESULTS**

Table 1 presents the primary disability categories of children receiving special education services at each assessment period. The number of children for whom any data were collected was 21,260 in kindergarten, 17,487 in first grade, 15,305 in third grade, and
The frequency of children with “learning disability” as the primary disability category increased over the course of the study — 11% for kindergartners, 25% for first graders, 50% for third graders, and 60% for fifth graders. The frequency of “serious emotional disturbance,” “mental retardation,” and “health impairment” as the primary disability category for children also increased across the assessment periods. Another interesting trend in the frequency of disability categories over time is the substantial decrease in children whose primary special education diagnosis was speech-language impairment. In kindergarten, 62% (n = 421) of the children receiving special education services had speech or language impairment as a primary disability category; the frequency decreased to 42% (n = 210), 25% (n = 133) in first, third, and fifth grade, respectively.

Table 2 presents descriptions of the characteristics of the special education experiences of children whose primary diagnosis was speech-language impairment. In terms of the amount of time children were scheduled to receive direct special education services, the majority at each grade level were scheduled for 1 hr or less per week. Table 2 also describes the location in which children received their special education services. A very small percentage of children at each grade level (between 3% and 7%) did not go outside of their general education classroom to receive special education services. A very small percentage of children at each grade level (between 3% and 7%) did not go outside of their general education classroom to receive special education services. The majority of children at each grade level spent between 71% and 76% of their time in school each week outside of the classroom to receive special education services.

The most common instructional method used with children whose primary disability category was speech-language impairment involved small-group activities, with more than 90% of the children at each grade level participating in this type of activity. The following instructional methods were used less frequently than small-group activities, but they were used with similar frequency across the grade levels: one-on-one instruction, direct instruction, cognitive strategies, self-management, and behavior management. A number of instructional methods — large-group activities, cooperative learning, peer tutoring, and computer-based instruction — were more frequently used during the later grades compared to the early grades. For example, between 13% and 21% of children in kindergarten and first grade whose primary diagnosis was speech-language impairment participated in large-group activities, peer tutoring, and computer-based instruction. In contrast, approximately one half of third and fifth graders participated in large-group activities, and approximately one third of third and fifth graders participated in peer tutoring and computer-based instruction.

Finally, modifications to the general education curriculum for children whose primary diagnosis was speech-language impairment were uncommon. More than 70% of kindergartners, first graders, and third graders were in classrooms within which no modifications were made to the general education curriculum, and 61% of fifth graders experienced no modifications to their general classroom curriculum. Across the grade levels, modifications that were made to the curriculum were rarely reported to be “substantial” or involve “specially designed materials.”

In sum, the descriptive analysis of the frequency of different disabilities and the special education experiences among children whose primary special education diagnosis was speech-language impairment revealed the following: The percentage of children in the total sample who received any special education services increased over time, with notable increases over time in the frequency of “learning disability” as a primary disability category and notable decreases over time in the frequency of “speech or language impairment” as a primary disability category. For children whose primary disability was speech or language impairment, approximately 3 out of 4 children at each grade level were scheduled to receive services for 1 hr per week or less, and most of these children were taken outside of their general education classroom for between 1% and 10% of the school week. In addition, the most common types of instructional activities in which children participated were one-on-one instruction, small-group instruction, and direct instruction.
Instructional methods such as large-group instruction, cooperative instruction, peer instruction, and computer-based instruction were more frequently used in third and fifth grades compared to the earlier grades. Finally, the majority of children in the general education classrooms used curricular materials that were not modified in any way.

**Conclusion**

As described in this article, the ECLS–K is a large-scale, longitudinal study of a nationally representative cohort of children that assesses multiple developmental domains and multiple inputs to development from kindergarten through eighth grade. Our analysis of the frequency of different diagnosed disabilities for children who received special education services in kindergarten, first grade, third grade, and fifth grade identified shifts in the nature of children’s primary disability over the elementary grades. Specifically, the frequency of children with “learning disability,” “serious emotional disturbance,” “mental retardation,” and “health impairment” as the primary disability increased across the assessment periods, and the frequency of children whose main disability category was a “speech or language impairment” decreased across the assessment periods. Our analysis also found substantial variability in the special education experiences of children with speech-language impairment with regard to the amount of time the children received services, location of services, types of instructional methods, and extent to which modifications were made to the general education curriculum.

This overview of the ECLS–K and the results of the descriptive study about the frequency of different disabilities and the nature of special education services are intended to familiarize researchers studying speech, language, and hearing services in schools with the ECLS–K as a potential source of data for secondary analyses. The results identify relatively large subsamples of children with different diagnosed disabilities, rich information about developmental trajectories and the contexts within which children develop, and specific features about the nature of children’s special education services. Our hope is that the implications of this overview and descriptive analysis of the ECLS–K will encourage future studies using these data to investigate the complex processes of development among children with special needs—the results of which will contribute to the development of theory, effective classroom practices, and evidence-based education policies that improve the well-being of children with speech-language impairment and other diagnosed special needs.

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