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Continuity and Change From Full-Inclusion Early Childhood Programs Through the Early Elementary Period

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A large and well-characterized group of children with mild developmental delays initially enrolled in full-inclusion preschool or kindergarten programs was followed for 3 years. Changes in the type of inclusive placements as children transitioned to first and second grades were monitored, and associations between placement type and child and family characteristics were examined. Results revealed a high level of continuity in that most children remained in partial or full inclusion settings over time. However, a substantial reduction in full-inclusion placements occurred between the 2nd and 3rd year when children were completing the transition to first and second grades. Placements in less inclusive settings were associated with children's levels of cognitive and language development but not their adaptive, social, or behavioral characteristics. A hypothesis was put forward that placement in full-inclusion programs during the early childhood years creates a momentum to continue maximum participation in inclusive settings over time.

Keywords: *early childhood inclusion; mild developmental delay; continuity and change*

Prompted by supportive legislation, positive parent perspectives, and numerous other factors, increasing numbers of children with developmental delays now participate in inclusive settings during their preschool and kindergarten years (U.S. Department of Education, 2004). Although the extent of involvement with typically developing children in these early education settings can vary considerably, a major goal has been to provide sufficient supports and services to enable young children to participate fully in typical education settings (Guralnick, 2001c, 2005b). Indeed, numerous sophisticated strategies are now available to allow children with a wide range of developmental characteristics to be full partners in instructional and social activities in typical early childhood (i.e., full-inclusion) programs (Guralnick, 2001b).

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The decision to place a child in a fully inclusive setting is a complex one, involving many and often competing factors. Program quality, specific child characteristics, family goals, professional advice, and receptivity and experience of the educational and program staff are only some of the key issues that enter into the decision process (see Bailey, McWilliam, Buysse, & Wesley, 1998; Hanson et al., 1998). Moreover, a decision to place a child in a fully inclusive program during the early childhood period constitutes an important commitment and often carries the expectation that through advocacy for appropriate services and program accommodations, a child will be able to continue to be fully included in the years ahead (Hanson et al., 2001).

This expectation is challenged almost immediately, however, in the transition to the first and second grades, where academic demands increase and peer relationships and social networks become more salient (e.g., Ladd & Kochenderfer, 1996; Perry & Weinstein, 1998). Indeed, available evidence suggests that children with developmental problems originally enrolled in fully inclusive settings are placed in less inclusive settings as they move from the early childhood to the early elementary years. Hanson et al. (2001) tracked 25 children with a heterogeneous array of delays and disabilities, 16 of whom were in a fully inclusive placement by the time they were 4 and 5 years old, and observed that fewer full-inclusion placements occurred during a 5-year period. Changes to less inclusive, including specialized, placements were most apparent between kindergarten and first grade. This pattern apparently resulted from many factors, including fewer full-inclusion options available as well as advice from professionals.

In the current study, we examined changes in inclusive placements from preschool and kindergarten to the early elementary years for a large and well-characterized group of children with mild developmental delays who were initially enrolled in full-inclusion programs. Children with mild developmental delays with corresponding Individualized Educational Programs (IEPs) were followed for a 3-year period. For each year, children were categorized as being in full-inclusion programs (with typically developing children all day and children with special needs a minority), partial-inclusion programs (with typically developing children most of the day and children with special needs a minority), partially specialized programs (with typical children only some of the day but mainly with children with special needs), and specialized programs (never with typical children). As noted, prior work had suggested a clear and often substantial trend toward less inclusive placements over time for a heterogeneous group of children. However, the fact that children in our sample were mildly delayed and had already participated in fully inclusive settings suggests that despite the challenges posed by early elementary classes, the factors that generated that initial placement decision would continue to influence future decisions. Indeed, level of delay or disability is an important element in placement decisions (e.g., Buysse, Bailey, Smith, & Simeonsson, 1994; Keogh, Coats, & Bernheimer, 1995). Consequently, we anticipated that the majority of the children with mild delays would still participate in fully or partially inclusive settings during the early elementary period. That is, a momentum may build and a set of expectations may be established that the needs of children with mild developmental delays can be best met in maximally inclusive settings.

Our purpose was not only to characterize the possible shift from full-inclusion placements over time but to determine the extent to which specific child characteristics within this group of children with mild delays were associated with any placement changes across

the transition to the early elementary years. In past research, child characteristics, particularly cognition and language, have been frequently found to be critical distinguishing features of the different types of inclusive placements for diverse groups of children in the elementary years, although these children first participated in noninclusive rather than inclusive early childhood programs (Edgar, McNulty, Gaetz, & Maddox, 1984; Keogh et al., 1995). This suggests that at least one basis for changes to less inclusive settings is the perception or reality that children's special needs cannot be effectively accommodated in more inclusive environments. Focusing on child characteristics, our interest in this investigation was whether associations with placement shifts that do occur exist mainly with a child's cognitive or language levels, particularly, whether these child characteristics will be associated with changes in inclusive placements over time despite initial experiences in a fully inclusive setting. Our alternative hypothesis suggests that because children have already been enrolled in fully inclusive settings, child characteristics such as cognition and language will not be seen as barriers, and placement decisions will be based on other factors. One set of possible child-specific factors examined in this study was children's social, adaptive, and level of behavior problems, although these social-behavioral characteristics have not strongly discriminated among placement types in the past (Keogh et al., 1995). Finally, a family's social status was examined, as families with more resources may be in a position to press more forcefully for the continuation of inclusive programs for their child.

Accordingly, a central question in this investigation is whether child and family characteristics are associated with types of inclusive placements as children with mild developmental delays initially enrolled in full inclusion early childhood programs make the transition to the early elementary period (first and second grades). To the extent that such associations are obtained, some insight can be achieved with respect to the factors entering into the decisions being made as well as the levels of supports needed to maintain children in fully inclusive settings.

Method

Participants

A total of 90 preschool and kindergarten children with mild developmental delays were recruited through contact with 11 local school districts in a large metropolitan community and followed throughout the 3 years of the study. Participating school districts distributed announcements describing an opportunity to participate in a research project intended to promote children's peer relations and friendships (Guralnick, Connor, Neville, & Hammond, 2006). Information was sent to all parents whose children had an IEP and who attended a fully inclusive preschool or kindergarten. Full inclusion was defined as settings in which the child with the IEP spent the entire school day in a class in which most (more than 50%) of the children required no special educational services. When school district personnel were unable to determine from their records whether the child with an IEP was in a full-inclusion program, announcements were sent to all children with IEPs in the district. In either instance, type of initial placement was confirmed by mothers or primary caregivers as well as by research staff (see below for definitions).

Parents who were interested in participating in the study directly contacted project staff, who then initiated a screening and identification process. In addition to the full-inclusion requirement, to be included in the final sample, a child had to meet the following criteria: (a) be between 48 and 78 months of age, (b) have a current IEP, (c) be experiencing difficulties in peer-related social competence as expressed by parent concerns in a structured phone interview, (d) have a primary female caregiver (minimum of a 6-month relationship, as mothers were our primary informants), and (e) obtain a Full Scale IQ (FSIQ) score between 50 and 90 on the Wechsler Preschool and Primary Scale of Intelligence–Revised (WPPSI-R; Wechsler, 1989). We did not gather information with respect to the chronological ages of the typically developing children in the classrooms. However, given the age range for our sample of children with delays, some children likely delayed entry into programs or remained in a particular program longer than 1 year prior to participation in our study. Although the age range in preschool and kindergarten programs is usually quite extensive, even for typically developing children, the average age of children with delays was likely somewhat higher than their classmates. Nevertheless, our definition of the extent of inclusion focused only on the amount of time spent with children who were developing typically and the percentage of those children in the classroom.

A number of exclusionary criteria also were established to maximize the ability of children and families to participate in this study as well as other components of the larger investigation. Based on the Child Behavior Checklist (CBCL; Achenbach, 1991) completed by the mother (or other female caregiver) for each child (see below), children who scored in the clinical range were excluded from the study (a *T* score above 70 was established to adjust to items focusing on developmental functioning). This occurred for only 2 children, as a phone-screening interview for mothers eliminated children (a total of 6) described as exhibiting major behavior problems. Similarly, exclusion occurred if mothers scored at or above the 95th percentile on the parent domain of the Parenting Stress Index (Abidin, 1995). Three participants were excluded on this basis. Finally, children were excluded if English was not their primary language or if they had significant sensory or motor problems. No children were excluded on this basis. The first 90 children and families to meet our criteria were included in the study.

Child and Family Measures

During each of the first 2 years of the study, a series of measures was administered to gather information with respect to children's cognition, language, adaptive behavior, behavior problems, and social competence. Specifically, the WPPSI-R (Wechsler, 1989) was administered to assess children's intellectual level and to obtain an FSIQ score. Older children were assessed with the Wechsler Intelligence Scale for Children–Third Edition (WISC-III; Wechsler, 1991). Two measures were employed to assess children's language levels: (a) the Test for Auditory Comprehension of Language–Revised (TACL-R; Carrow-Woolfolk, 1985; although the TACL-R yields four standardized scores, only the total score was used in the analysis) and (b) the Expressive One Word Picture Vocabulary Test–Revised (EOWPVT-R; Gardner, 1990). For this measure, the obtained raw score was converted to a standard score, which was used for analysis. All of these cognitive and language measures have been extensively used with children with delays and, as reported in the manuals, have high internal reliabilities and test–retest stabilities (>.80).

To obtain an estimate of children's adaptive behavior, the Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984) Survey Form was administered to each mother (or primary female caregiver but hereafter referred to only as *mother*) by trained interviewers. Standard scores were obtained for each of the four domains (communication, daily living skills, socialization, and motor skills) as well as for the total adaptive behavior score. Only the total score (composite) was used for this analysis. The alpha coefficient for this study, averaged across the four domains, was .83.

Children's behavior problems were assessed by both mothers and teachers. For the CBCL (Achenbach, 1991), mothers rated the frequency of different behavior problems from a 118-item questionnaire using a 3-point scale. Only the total behavior problem score was used for analysis. Higher scores indicate greater perceived behavior problems. Similarly, the Teacher Report Form (TRF; Achenbach, 1991) was completed by each child's head teacher. The TRF is designed to obtain standardized reports of children's behavioral-emotional problems, which is similar to the CBCL. The TRF has 118 problem items, of which 93 have counterparts on the CBCL. Teachers were asked to rate the child with respect to how true each item is now or within the past 2 months using the same 3-point scale as found on the CBCL. Only the total behavior problem scores were used for analysis. Both scales are widely used with children with delays and are carefully normed. As reported in the manual, both scales have high test-retest reliabilities and internal consistency (>.90).

Mothers were asked to complete the parent form of the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) to obtain ratings of their child's general social functioning. On the SSRS-Parent version (preschool level or elementary level), the occurrence of particular social skills are rated using a 3-point scale with respect to how often the child's mother saw the skill demonstrated by her son or daughter (0 = *never*, 1 = *sometimes*, 2 = *very often*). Additionally, mothers rated how important each social skill was for their child's development using a 3-point scale (0 = *not important*, 1 = *important*, 2 = *critical*). The particular level completed (preschool or elementary) was based on the child's current program placement. Mothers' responses are summed across all social skills items to obtain a total raw score, which is converted to the single standard score used for analysis. The alpha coefficient for this study was .87.

Teachers were also asked to complete the teacher form of the SSRS (SSRS-Teacher; Gresham & Elliott, 1990) to obtain their ratings of the children's general social competence. The SSRS-Teacher version (preschool level and elementary level) contains 30 items that measure a variety of social skills. Teachers rated the occurrence of particular social skills using a 3-point scale for how often they see the skill demonstrated (0 = *never*, 1 = *sometimes*, 2 = *very often*). Additionally, teachers were asked to rate how important each skill was for each child's success in their classroom using a 3-point scale (0 = *not important*, 1 = *important*, 2 = *critical*). The particular level completed (preschool or elementary) was based on the child's current program placement. Teachers' responses were summed across all items to obtain a total raw score, which was converted to the single standard score that was used for analysis. The alpha coefficient for this study was .85.

Finally, standard demographic information about the family (marital status, number of children, ethnicity, educational and occupational status, and income) was gathered via self-reports from mothers. The Hollingshead Four-Factor Index of Social Status (Hollingshead, 1975) was used to calculate a measure of family status (range 8 to 86).

Table 1
Child and Family Characteristics During the 1st Year and End of 2nd Year for
Children Enrolled in Full-Inclusion Programs

	Year 1 (<i>N</i> = 90)		Year 2 (<i>N</i> = 78)	
	<i>M</i> or %	<i>SD</i>	<i>M</i> or %	<i>SD</i>
Child demographics				
Child's age (months)	63.81	7.84	84.28	7.29
Child's gender (% male)	74.4		74.4	
Child's ethnicity (% Caucasian) ^a	73.3		74.3	
Grade in school				
Preschool (%)	46.7		3.8	
Kindergarten (%)	53.3		50.0	
First grade (%)	0		46.2	
Family demographics				
Family social status ^b	50.22	13.85	52.6	12.89
Cognitive, language, and adaptive behavior measures				
Full Scale IQ ^c	72.20	11.98	76.33	15.99
TACL-R Total Scale ^d	73.66	16.64	72.86	21.39
EOWPVT-R Expressive Language ^e	82.32	14.41	91.27	19.70
VABS Adaptive Behavior Composite ^f	71.87	10.31	78.78	12.45
Behavior problem measures				
CBCL Total Behavior Problems ^g	58.49	7.11	56.04	8.9
TRF Total Behavior Problems ^h	58.48	6.94	58.58	6.96
Social competence measure				
SSRS-Parent ⁱ	79.60	13.57	84.83	13.94

Note: *N*s vary slightly for teacher measures.

a. Black, 1.6%; Hispanic, 4.8%; Asian, 6.3%; Native American, 1.6 %; Biracial, 12.7%.

b. From Hollingshead Four-Factor Index of Social Status (Hollingshead, 1975).

c. From Wechsler Preschool and Primary Scale of Intelligence-Revised (Wechsler, 1989) or Wechsler Intelligence Scale for Children (Wechsler, 1991).

d. From Test of Auditory Comprehension of Language-Revised (Carrow-Woolfolk, 1985), standard scores.

e. From Expressive Oral Word Picture Vocabulary Test-Revised (Gardner, 1990), standard scores.

f. From Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984), standard score.

g. From Child Behavior Checklist (Achenbach, 1991), *T* scores.

h. Teacher Report Form (Achenbach, 1991), *T* scores.

i. Social Skills Rating System-Parent version (Gresham & Elliott, 1990), standard score (The SSRS-Teacher version was not obtained during the 1st year).

All measures except the SSRS-Teacher were administered in the fall of the 1st year as children participated in their full-inclusion programs (see Table 1). In addition, this set of measures was administered once again at the end of a child's 2nd year of participation. These data were used to predict children's placements in the 3rd year of the study, as all children would likely be enrolled in either first or second grade by that time.

Classification of Inclusive Placements

Information was obtained from mothers on the type of inclusive program in which their child participated in all 3 years. In each instance, mothers responded to the following question:

Which one of the following best describes your child's current school classroom placement?
 (1) Entire school day is spent exclusively with children who receive special educational services; (2) Most of the school day is spent exclusively with children who receive special educational services, but joins other children without special needs for recess, lunch, music or other selected activities; (3) Some of the school day is spent exclusively with children who receive special educational services, but spends most of the day in classes in which most of the children require no special educational services; and (4) Spends entire school day in a class in which most of the children require no special educational services.

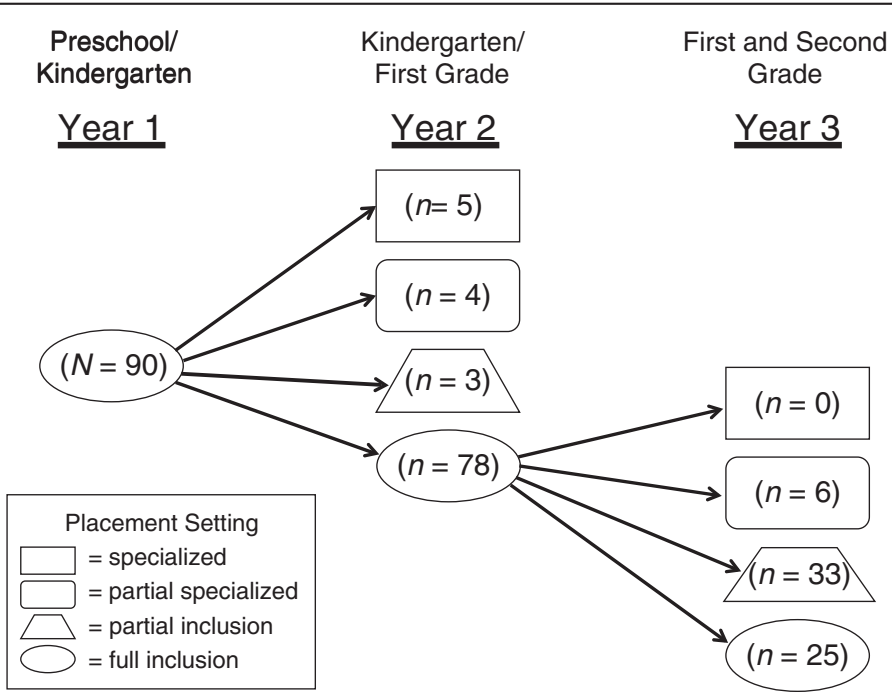
These responses corresponded to our classification as follows: (a) specialized, (b) partial specialized, (c) partial inclusion, and (d) full inclusion. Project staff who visited the classes in Years 1 and 2 confirmed the mothers' placement classifications. Mothers also noted whether children still had an IEP during the 2nd and 3rd years.

Results

Figure 1 illustrates the pattern of continuity and change in inclusive placements during the course of the 3-year period for the combined group of preschool and kindergarten children.¹ Before proceeding with the main analyses, the similarity of placement patterns for preschool and kindergarten children was examined in two ways. First, a 4×2 chi-square analysis of placement type at Year 2 by initial grade (preschool or kindergarten) showed that the distribution of placement type was not significantly different for the two groups, $\chi^2(3, n = 90) = 2.95, p > .05$. At Year 2, 88.1% of those who were initially enrolled in preschool and 85.4% of those who were initially enrolled in kindergarten were in full inclusion settings. Second, a 3×2 chi-square analysis of placement type at Year 3 (for those in the full inclusion setting at Year 2; see below) by initial grade level (preschool or kindergarten) also revealed that the distribution of placement type at Year 3 did not differ between the two groups, $\chi^2(2, n = 64) = 1.61, p > .05$. At Year 3, 46.7% of those who began in preschool and 32.4% of those who began in kindergarten were in full-inclusion settings. Consequently, the patterns of continuity and change did not appear to differ between the two groups and were therefore combined for all analyses.

Although our primary interest was in Year 3, when virtually all children would be enrolled in either first or second grade, we nevertheless compared those children who remained in fully inclusive programs at Year 2 ($n = 78$) with those who were now enrolled in specialized or partially specialized programs ($n = 9$) on all child and family measures at Year 2. As expected, children were equally represented in kindergarten and first grade, and only 2 children remained in a preschool setting (but are included in Figure 1). Based on a series of t tests and chi-squares, no statistically significant differences ($p > .05$) were obtained for any of the measures listed in Table 1. Year 1 child and family measures for

Figure 1
Changes in Inclusive Placements During the 3-Year Period



those two groups of children were then used to predict Year 2 placement but were not statistically significant ($p > .05$). Scores were virtually identical on all measures. Of note, given the unequal group sizes in this and subsequent analyses, tests for homogeneity of variance were performed prior to all t tests and one-way ANOVAs. In all cases, the assumption of equal variances did hold. However, for pairwise multiple comparisons, the Scheffé test was chosen, as this test is appropriate when group sizes are unequal.

The 78 children who remained in fully inclusive programs in Year 2 were then followed into their 3rd year. All except 3 children (remaining in kindergarten) were enrolled in either first or second grade by Year 3 (approximately equally divided in each grade as expected; all included in Figure 1). The Year 3 group of children was of special interest because they represented at least 2 years of experience (and corresponding expectations) in full-inclusion programs, with approximately half the children participating in 1 year of first grade by the end of Year 2. However, complete placement data in Year 3 were not available for 14 of the children. To determine if this group of 14 children differed from those for whom data were available, we compared the two groups on all child and family measures based on Year 2 assessments (available for all participants). None of the comparisons was statistically significant ($p > .05$).

As seen in Figure 1, by Year 3, 25 of the children remained in fully inclusive classes (2 in kindergarten), whereas 33 children were placed in partial-inclusion classes (1 in kindergarten). Of note, only 6 children were in a partial specialized class, and no child was in a fully specialized program. All children in the partial specialized and partial-inclusion

Table 2
Demographic and Child Developmental and Behavioral Measures at End of
Year 2 for the Three Types of Inclusive Placements at Year 3

Measure	Partial Specialized (<i>n</i> = 6)		Partial Inclusion (<i>n</i> = 33)		Full Inclusion (<i>n</i> = 25)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Demographic measures						
Child's age (months)	81.33	8.14	85.48	6.40	84.44	7.43
Child's gender (% male)	50.0		69.7		80.0	
Child's ethnicity (% Caucasian)	83.3		78.0		76.0	
Grade in school						
Preschool	0.0		3.0		4.0	
Kindergarten	50.0		39.4		64.0	
First grade	50.0		57.6		32.0	
Family social status ^a	53.17	7.25	54.20	12.58	51.10	13.02
Developmental and behavioral measures						
Full Scale IQ ^b	63.33	11.18	73.82	14.49	81.88	14.24
TACL-R Total Scale ^c	52.83	22.91	70.15	22.01	77.28	17.04
EOWPVT-R Expressive Language ^d	70.50	11.11	87.55	19.00	99.84	17.28
VABS Adaptive Behavior Composite ^e	72.50	15.68	77.36	10.93	80.96	9.10
CBCL Total Behavior Problems ^f	57.00	5.22	55.91	9.13	55.20	9.93
TRF Total Behavior Problems ^g	64.60	5.86	58.57	6.89	57.68	6.29
SSRS-Parent ^h	85.00	15.44	82.58	12.74	88.40	14.88
SSRS-Teacher ⁱ	81.50	3.11	87.29	8.59	89.48	7.72

Note: *Ns* vary slightly for teacher measures.

a. From Hollingshead Four-Factor Index of Social Status (Hollingshead, 1975).

b. From Wechsler Preschool and Primary Scale of Intelligence-Revised (Wechsler, 1989) or Wechsler Intelligence Scale for Children (Wechsler, 1991).

c. From Test of Auditory Comprehension of Language-Revised (Carrow-Woolfolk, 1985), standard scores.

d. From Expressive Oral Word Picture Vocabulary Test-Revised (Gardner, 1990), standard scores.

e. From Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984), standard score.

f. From Child Behavior Checklist (Achenbach, 1991), *T* scores.

g. Teacher Report Form (Achenbach, 1991), *T* scores.

h. Social Skills Rating System-Parent version (Gresham & Elliott, 1990), standard score.

i. From Social Skills Rating System-Teacher version (Gresham & Elliott, 1990), standard scores.

settings continued to have IEPs, but this was the case only for 80% of the children in the full-inclusion classroom.

We then compared the children in the three groups in which they were participating (partial specialized, partial inclusion, full inclusion) on demographic and child characteristic measures (see Table 2) obtained at the end of the 2nd year, as this corresponded to the time period in which placement decisions for the subsequent year were finalized. For demographic measures, no differences in type of placement were found for the family socioeconomic status measure, $F(2, 61) = .44, p > .05$; gender, $\chi^2(2, n = 64) = 2.31, p > .05$;

ethnicity, $\chi^2(2, n = 64) = .17, p > .05$; children's chronological age, $F(2, 61) = .92, p > .05$; or grade in school, $\chi^2(2, n = 64) = 3.97, p > .05$. One-way ANOVAs for type of placement at Year 3 carried out for each of the Year 2 child developmental and behavioral measures yielded statistically significant differences only for measures of cognition and language: FSIQ, $F(2, 61) = 4.96, p < .05, \eta^2 = .14$; TACL-R, $F(2, 61) = 3.63, p < .05, \eta^2 = .11$; EOWPVT-R, $F(2, 61) = 7.67, p < .01, \eta^2 = .20$. Follow-up tests using Scheffé pairwise multiple comparisons indicated that the full-inclusion group had significantly higher scores than the partial specialized group for FSIQ and the TACL-R ($p < .05$). Calculations for FSIQ and TACL-R contrasts indicated effect sizes ($d = 1.20$ for both measures) in the medium-to-large range (Cohen, 1988). Similar calculations for the EOWPVT-R measure indicated that the full-inclusion group had significantly higher scores than both the partial specialized group ($p < .01, d = 1.5$) and the partial inclusion group ($p < .05, d = .64$). These effect sizes are also in the medium-to-large range. No differences were found comparing the full and partial inclusion groups. Other multivariate statistical approaches with larger numbers of participants available would be able to evaluate whether specific combinations of these variables are associated with placement type. Nevertheless, the importance of individual child cognitive and language factors clearly emerged in this analysis.

Discussion

In this study, we examined changes in the types of inclusive placements for children with mild developmental delays as they transitioned from full inclusion preschool or kindergarten programs to the first and second grades. This transition is especially challenging given the increased academic and social demands faced by all children as they move to the early elementary years. The fact that children were initially enrolled in preschool or kindergarten full-inclusion programs suggests a high level of commitment by families to the concept and practice of inclusion and likely a parental perception as well that their children could be accommodated effectively in that placement option. It is important to point out that in Washington State, where this study was carried out, only relatively small percentages of 4-year-old (17%) and 5-year-old (26%) children are enrolled in full-inclusion programs (Part B Report, Washington State Performance Plan, 2005).

Despite the fact that the children in our sample initially participating in these full-inclusion programs exhibited a wide range of child characteristics, including nearly a 3 standard deviation range in cognitive level, our findings revealed a continuing strong commitment to full inclusion from Year 1 to Year 2. Although approximately half the children were in first grade by Year 2, 78 of the 90 children remained in a full-inclusion program. The reasons for shifting to less inclusive placements for the small number of children who did so were likely based on some combination of factors identified by Hanson et al. (2001). We did not determine the precise reasons in our study for these placement changes. However, our analyses revealed that those children who moved from full inclusion to specialized or partially specialized programs during Year 2 were indistinguishable on the basis of child cognition, language, adaptive behavior, behavior problems, or social competence, as well as family demographic characteristics, from the children who remained in full-inclusion programs. Those children who shifted to less inclusive placements in Year 2 generally made many changes with no pattern

in particular in the types of inclusive programs in which they enrolled during Year 3 (not shown). This suggests some instability in decision making for this small subgroup, but decisions are not linked directly to those child characteristics we evaluated.

In contrast, after 2 years of participation in full-inclusion programs for the 78 children, only 39% remained in that type of educational setting by Year 3, a pattern similar to that obtained by Hanson et al. (2001). Nevertheless, despite the academic and social demands associated with first and second grade, 91% of the children continued to be involved with typically developing children either most of the day (partial inclusion) or in full-inclusion classes. None was enrolled in a specialized setting.

All children in partial inclusion programs continued to have IEPs, and most special services were likely integrated within the regular class. Of note, whatever the reasons for this shift to partial inclusion, it was associated with child developmental characteristics in only a minor way. Comparisons between the full-inclusion and partial-inclusion groups did not reveal any differences in cognition, language (except EOWPVT-R), adaptive behavior, behavior problems, or social competence. The two groups also did not differ on family characteristics.

Taken together, our findings with respect to placement patterns across the transition to the early elementary period are consistent with the hypothesis that initial placement in a full-inclusion program during the early childhood years creates a momentum that results in continuing, extensive involvement with children who are developing typically. The pattern obtained in the 3 years of this study indicates such an ongoing commitment in view of the very high percentage of children who continued to be enrolled in full-inclusion or partial-inclusion programs. Prior research with respect to placements following a specialized preschool experience has also documented continuity with respect to future placements; but in this case, children were placed in mainly noninclusive settings (Edgar et al., 1984; Edgar, Heggelund, & Fisher, 1988; Keogh et al., 1995).

Although no children were in specialized placements in Year 3, a small group (9%) participated in partially specialized programs, spending most of the school day with other special-needs children. Of importance, our findings revealed that these children differed significantly from the children enrolled in full-inclusion programs in terms of lower levels of cognitive and language development at the time placement decisions were made. In fact, as suggested even by the trends for children in partial-inclusion programs (see Table 2), it appeared that cognitive and language levels were important factors associated with variations in inclusive placements during first and second grades for children with mild developmental delays initially enrolled in full-inclusion early childhood programs. This suggests that additional work remains to develop and implement the types of special instructional accommodations to children's cognitive and language abilities in the early elementary years that can effectively support children even with mild delays in inclusive settings. In its absence, a shift to less inclusive placements over the years will likely continue, even for parents with a strong initial commitment to inclusion.

However, other child characteristics presumed to be relevant to inclusive placements, particularly children's adaptive behavior, behavior problems, and social competence, did not differ among the three groups enrolled in first and second grades at Year 3. The similarities for all these measures among the three groups suggested that these social-behavioral aspects of children's development did not enter into placement decisions.

The associations between cognitive and language levels and placement type obtained in this study are consistent with related findings for children initially enrolled in noninclusive preschool placements and then followed to the elementary school period (Keogh et al., 1995). Moreover, the relationship between lower levels of cognitive and/or language development and less inclusive placements may have been even more apparent with a larger number of participants, thereby providing more statistical power.

Our sample consisted of families in the midlevels of socioeconomic status, who did not exhibit clinical levels of parent stress, and who were clearly interested in their children's social development as indicated by the desire to participate in a program to promote their children's social interactions with peers and to initially select a full-inclusion setting for their child. Although the range of children's developmental delays in our study was considerable, they did not include complexities created by children's co-occurring sensory, motor, or extreme behavior problems. Nevertheless, on the basis of parent report, these children did exhibit problems in peer relationships, a concern evident for the vast majority of young children with mild developmental delays (Guralnick, 1999). In addition, also according to the parent report from the Parenting Stress Index (Abidin, 1995) child domain, children in our sample presented expected challenges. In fact, by Year 2, 23.3% of families reported extreme levels of child-related stress (e.g., demandingness, adaptability, distractibility, or hyperactivity) indicated by a score at or above the 95th percentile, and 50.0% reached the clinical cut-off for high levels of stress (85th percentile) suggested by Abidin (1995).

These features of our sample clearly limit the generalizability of our findings to similar children and families. At the same time, the specific criteria used to define our sample constitute a strength of our study. By analyzing a well-defined, relatively homogeneous group of children with mild delays initially enrolled in a full-inclusion setting, important information with respect to continuity and change in inclusive patterns specific to this highly prevalent group was obtained. In fact, children with mild developmental delays, perhaps more than any other group, have been studied extensively with respect to social relationships in inclusive early childhood settings (Guralnick, 1999) and developmental patterns (Gallimore, Keogh, & Bernheimer, 1999). The most comparable study to our investigation is that by Hanson et al. (2001), but their sample consisted of only 25 children varying dramatically in ability level and seven primary categorical diagnoses (speech–language impairment, developmental delay, mental retardation, physical impairment, autism, social–emotional impairment, and visual impairment). Although the influence of child characteristics on placement patterns emerged from their qualitative analyses, suggesting this is an important factor, no generalized patterns of association with child developmental characteristics (severity or categorical diagnosis) could be generated, given the sample size and heterogeneity.

In the future, samples based on other well-defined family and child characteristics, particularly criteria related to the type (e.g., categorical or etiologic diagnosis), severity, and complexity of a child's disability or to family risk, will be needed to obtain a broader picture of changes from full-inclusion placements when young children move to the early elementary years. Numerous programmatic factors, including program quality, chronological ages and developmental levels of children with and without disabilities, and level of teacher training, must be considered as well (Guralnick, 1981). Child characteristics are clearly important and likely interact in complex ways with programmatic factors and systems level variables to result in a placement decision. Careful characterization of children and families

will ultimately make it possible to determine whether and how these and other factors related to placement decisions vary from group to group. It should be noted that the approach toward increasing our understanding of the specificity of patterns and influences, including well-defined child and family characteristics as examined in this study, is a primary goal of second generation research in the field of early intervention in general (Guralnick, 1997, 2005a). Indeed, as more and more communities move ahead with an agenda that provides expanding opportunities for children to be placed in high-quality early childhood inclusive settings (Guralnick, 2001a), it will be possible to evaluate the staying power of an initial placement in a full-inclusion program suggested in this study for a wider range of children and families and to investigate as well the relative contributions of other factors in placement decisions.

Note

1. Because this study contained an intervention focusing on peer relationships, we conducted analyses to examine if intervention or control children were disproportionately represented in the types of inclusive settings during Years 2 and 3. None of the χ^2 analyses was significant ($p > .05$).

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