Examination of Contextual Variables Across and Within Different Types of Placement for Elementary Students With Complex Support Needs

Lewis Jackson[1] ⓘD, Martin Agran[2] ⓘD, Kirsten Rebecca Lansey[3],
Dale Baker[4] ⓘD, Somer Matthews[4], Heather Fitzpatrick[1],
Matt Jameson[3] ⓘD, Diane Ryndak[4], Kristin Burnette[4], and Debbie Taub[4]

Abstract

Research has begun to identify the breadth and complexity of contextual variables that impact the opportunities, services, and supports students with complex support needs receive across different classroom placements. Indeed, as research has suggested, placement in and of itself may determine the schooling experiences of these students in ways that can enhance or constrain the outcomes of the educational process. This study examined an array of contextual variables in relation to four types of placement in which students with complex support needs might be placed for educational services by their Individualized Education Program teams. Placements were defined in terms of percent of the school day students had access to age-level general education classes, ranging between no access (separate school) to 80% or higher ("inclusive"). The investigation used surveys completed by a national sample of special and general educators and administrators. Completed surveys were obtained for 117 students with complex support needs across all four types of placement. The findings revealed potential relationships between a number of contextual variables and placement, suggesting that: (a) student opportunities and experiences vary systematically in relation to the amount of access they have to general education classrooms and (b) the application of the Least Restrictive Environment process, with its tacit endorsement of segregated settings and specialized programs, may in fact negatively impact the education of many of these students. Implications of these findings and future research needs are discussed.

Keywords

access to the general curriculum, classroom ecology, content expertise, curriculum, inclusion, inclusive education, placement & LRE

For the last 50 years, special education has relied on the *Least Restrictive Environment* (LRE) framework as a guide to determining the educational placement for each student with disabilities (Individuals with

---

[1]University of Northern Colorado, Greeley, USA
[2]University of Wyoming, Laramie, USA
[3]University of Utah, Salt Lake City, USA
[4]University of North Carolina, Greensboro, USA

*Heather Fitzpatrick is now affiliated to Northwestern College, Orange City, Iowa, USA; Kristin Burnette is now affiliated to East Carolina University, Greenville, USA

Corresponding Author:
Lewis Jackson, University of Northern Colorado, McKee Hall, 501 20th St., Greeley, CO 80639, USA.
Email: lewis.jackson@unco.edu

Disabilities Education Improvement Act [IDEA], 2004), resulting in an LRE-supported placement hierarchy. The use of this hierarchy has led to students with complex support needs receiving services in contexts with differing levels of restrictiveness defined principally by two variables—the percent of time a student is educated in general education classes, and the degree and intensity of supports and services used to assure that the student is receiving a free and appropriate education (FAPE). An implicit assumption of the LRE framework is that the instruction, supports, and services needed by a student to ensure FAPE in some situations *require* more restrictive educational settings (Turnbull, 2020). A second assumption is that, over time, a student can move from more to less-restrictive contexts, ultimately moving into general education classes. As such, the LRE framework was conceived to be a dynamic and fluid model; that is, students with disabilities would progressively receive services in less and less-restrictive contexts "to the maximum extent appropriate" (Brock, 2018; IDEA, 2004) congruent with: (a) their progress in developing appropriate academic, social, communication, and functional skills; and (b) their Individualized Education Program (IEP) team's consensus that a student would benefit from participation in a less-restrictive context (Sauer & Jorgensen, 2016). Put differently, as students gain proficiency and greater learning capacity, they would in theory move into less-restrictive placements.

Following this model, during the annual IEP meeting, a student's team determines what percentage of the school day the student would spend in general education classes (e.g., 80%, 60%). This decision is based on their perceptions of the student's evolving learning and behavior performance coupled with their perspective on resources needed for the student to make progress in the proposed educational goals. However, inherent with power to grant greater access to general education is power to withhold access, under the presumption that greater restrictiveness increases services and optimizes learning, especially when students have complex support needs.

The latter part of the last century witnessed numerous efforts by Congress to pass and strengthen laws to ensure equitable access and educational services for persons with disabilities (i.e., Americans with Disabilities Act, 1990; IDEA, 2004; Section 504 of the Rehabilitation Act, 1973). Indeed, the concept of LRE was intended to ensure that students with disabilities are placed outside of general education only to the extent appropriate for meeting needs that cannot be met in general education contexts with supplementary aids and services. Further supporting increased access to general education classes is the shift that has occurred regarding what represents desirable outcomes for students with complex support needs. While past special education programs for these students emphasized "daily living skills" (e.g., Ayres et al., 2011), federal law now states explicitly that educational services must promote access to and progress in the general curriculum. Moreover, age/grade-level general education content is now broadly recognized as appropriate for students with complex support needs (Hunt et al., 2012).

Despite legal mandates, federal law has proved inadequate for ensuring that students with complex support needs are placed more in general education (Turnbull, 2020). Recent data indicate that only 16.9% of students with intellectual disability and 13.7% of students with multiple disabilities are placed in general education (Giangreco, 2020). Over the last 40 years, increases in the number of students with intellectual disability placed in general education has been minimal (Brock, 2018). In fact, placements in general education decreased between 2010 (17.9%) and 2014 (16.9%; Brock, 2018) and remain low today (16.9%; Giangreco, 2020).

Clearly, placement patterns over the last several decades do not reflect a commitment to full participation in general education for students with complex support needs (Brock, 2018). Agran et al. (2020) have offered six reasons for the proportionally high rates of segregated placements: (a) belief that students with complex support needs present too much of a challenge to general educators; (b) belief that students with complex support needs cannot benefit from instruction in general education; (c) socioeconomic and geographic location variables (e.g., low-incomes levels and urban locations as predictors of segregated placements, respectively); (d) biases against "inclusive education" per se, reflected in school district practices and policies; (e) failures of teacher preparation programs to teach instruction and support for students in general education settings; and (f) purported lack of resources and knowledge by district personnel about current research on effective programs and student capability. In other words, placements for students with complex support needs seem determined by beliefs associated with *ableism*, reliance on the *deficit model* of

education (Giangreco, 2020), lack of knowledge about evidence-based practices, and where students happen to live (Brock & Schaefer, 2015).

A variable that, if better understood, might hold the key to breaking the placement stalemate faced by students with complex support needs is *context*, which includes both the characteristics and practices within instructional settings and the operative practices and policies in a school or district. Jackson et al. (2008–2009) indicated that education for students with complex support needs has largely focused on three variables: curriculum content, instructional delivery, and the learning processes within the student. Treating these variables as isolated and malleable in and of themselves does not acknowledge the possibility that particular contexts might promote certain curriculum choices, define viable instructional processes, and predispose adults to certain expectations regarding student potential to learn. If context is, in fact, a factor that contributes to the educational opportunities provided to students, then "placement" must be viewed from an entirely different lens, one that asks whether a continuum of placements optimizes or impedes the provision of FAPE to students.

Based on theory and research, Jackson et al. (2008–2009) proposed that educational experiences do vary systematically in relation to placement and that opportunities to learn may be restricted or enhanced depending on placement. Ryndak et al. (2013) described four dimensions in which variables can differ across placements: (a) the physical and social setting, (b) curriculum content, (c) instruction, and (d) student outcomes/assessment. The expression of these variables could be influenced directly or indirectly by a range of practice variables at the class, school, and district levels, including peer, teacher, class, and administrative variables (Ruppar et al., 2017). Knowing the potential impact of systematic differences in such variables across placement types is critical, especially if there are differential effects on learning (Jackson et al., 2008–2009). Given the LRE framework's reliance on the presumption that context can be progressively structured to enhance learning, evidence that certain placements might in effect restrict critical learning opportunities would undermine the credibility of the framework itself.

Present day research addressing the "ecologies" of classrooms has begun to identify the breadth and complexity of contextual variables and how they might affect learning. For example, Kurth et al. (2016) examined the eco-behavioral characteristics of self-contained placements. They reported that students were only passively engaged, nonacademic tasks were prominent, limited time was spent in instructional interactions, and students had few social and communication exchanges. Inversely, examining elementary students in general education classes, Soukup et al. (2007) reported that the students were engaged in instruction on grade-level standards the majority of the time (60%–98%), and where differences existed, they favored students who were included more of the school day in general education.

Studies that contrast the contexts of different types of settings appear to be rare in the professional literature. Wehmeyer et al. (2003) examined instruction for middle school students with intellectual disability, finding that "tasks linked to a standard in any way and having adaptations provided" (p. 267) were higher in inclusive settings than in noninclusive settings. In a recent study using matched comparisons, Gee et al. (2020) examined the proportion of student time engaged in different types of classroom activities (i.e., learning, social, independent play) and found that rates of being *unengaged* were significantly lower for students in general education classes (4%) compared to students served in special education classes (38%). Furthermore, the students in general education settings showed greater progress on IEP goals related to communication, literacy, and numeracy when compared to students in self-contained settings.

We argue that understanding context requires much more than what present research provides in terms of both the number and breadth of setting and instructional variables that have been examined. The effects of some contextual variables on student learning could be obvious and direct (e.g., types of instruction, types of curriculum employed), but the effects of other variables might be less evident and indirect (e.g., budgets in relation to placement practices, teacher preparation). Nevertheless, both types of variables could be important for understanding the impact of placement on student learning, and it is in the assembling of a data set that examines these different types of variables collectively that allow us to piece together a unified understanding of context. Moreover, "placement" is much larger than simply "general education classrooms versus special education classrooms." Many of these students experience placements that mix general education and special education opportunities, and studies that examine and compare the breadth and complexities of these varying placement contexts do not presently exist.

There is no question that placement represents a complex concept, involving the influences of multiple systems and contexts, any or all of which might directly or indirectly facilitate or debilitate student learning (Ruppar et al., 2017). To ensure that we fully understand the implications and repercussions of our placement practices, it is critical that we better understand the "context" of different placements, what occurs within those contexts, and what external (i.e., indirect) variables also appear to be influential factors. To better understand the contexts of different placements, this study examined an array of setting, curricular, instructional, and student support factors associated with four different student placements, defined in terms of the percentage of time targeted students spent in the general education setting (i.e., 80% or more, 40%–79%, less than 40%, 0%). The following question guided this research:

Are there highly probable and substantive differences across and between the four types of placement in the expression of contextual variables that impact educational opportunity, including material, personnel, curriculum, instruction, and support practices?

Method

The study reported herein is a part of a national study that examined the potential impact of *educational placement* on the academic, behavioral, and social/communication outcomes of students with complex support needs across different placements (for particulars on the larger study, see Kurth & Jackson, 2022). In the following subsections, we provide a brief description of the larger study's criteria and processes for selecting participants. This is followed by addressing measurement activities for what we will report in this article. Finally, we address the analyses processes used to address our research question.

Participants

Students were selected for participation in this study based on the following criteria: (a) categorized within the 1% of students who participate in their state's alternate assessment due to the severity of their cognitive impairment; (b) an IDEA diagnostic classification of autism, intellectual disability, or multiple disabilities; (c) currently eligible for special education services and receiving services through an IEP; (d) elementary-aged student between 5- and 12-years-old at the start of the study; and (e) consistent school attendance. Using Section 618 of IDEA as a basis, we also selected students such that we could represent four placement designations: *Placement A*: Students in schools where they were represented in natural proportions (i.e., approximately 1% of total school enrollees) and educated 80% or more of the school day within the general education classroom; *Placement B*: Students in schools where they were represented disproportionately (i.e., 2% or greater of total school enrollees) and were educated 40% to 79% of the school day inside the general education classroom; *Placement C*: Students in schools where they were represented disproportionately (i.e., 2% or greater of total school enrollees) and educated less than 40% of the school day inside the general education classroom; *Placement D*: Students educated in special education schools with no routine access to general education classroom settings.

Institutional Review Board (IRB) procedures were completed by the project's principal investigator from the Kansas University Center on Developmental Disabilities (KUCDD) at the University of Kansas. Upon IRB approval, co-principal investigators from the remaining five universities secured reliance agreements in which the IRB standards set by the University of Kansas were endorsed and implemented at their respective sites. Signed consents were required of parents, teachers, and participating administrators for information collected by standardized tests, surveys, document reviews, and observation procedures in classrooms.

A total of 117 students with complex support needs, their teachers, and administrators were recruited as participants in this study. In terms of placements, 35 (29.9%) of the students were spending 80% of their school day in general education (Placement A); 34 (29.1%) of the students were spending 40% to 79% of their day in general education (Placement B); 30 (25.6%) of the students were spending 0% to 40% of their day in general education (Placement C); and, 18 (15.4%) of the students were in special schools with no routine access to general education (Placement D). As described in Kurth and Jackson (2022), these students were recruited across 11 states, drawn from 59 schools across 36 local education agencies in the United States.

Data Collection and Instrumentation

A variety of observational, survey, and standardized test data sources were employed in the larger investigation to examine the educational experiences of students in their schools and classes and patterns of student learning and participation. In the current investigation, we examined contextual variables across the four student placement options, looking for possible patterns and relationships that could reveal distinct student experiences in the different placements. We employed a four-levels approach, in which a level's potential impact on a participant's daily experiences became more indirect as one moved from level to level. These were (a) student level, (b) class level, (c) school level, and (d) district level.

To accomplish the foregoing, we focused on survey data. Surveys had been designed by the research team to yield descriptive information of settings, persons, curriculum, instruction, assessment, and services at the four levels named above. The *Student Demographic Survey* was a 24-item instrument that addressed variables such as age, gender, race, ethnicity, disability, grade level, teacher(s), placement settings and time in general education, classes and subject matter, curriculum, instructional materials, and supports. The *Classroom Demographic Survey* consisted of 33 items, addressing teacher demographics, student composition in classes, teaching supports, related service provision, teaching and assessment approaches. The *School Demographic Survey* was a 49-item survey sampling characteristics and service capacities of the schools that served our student participant sample. Finally, the *District Demographic Survey* had 23 items, addressing such variables as numbers of schools, budget information, and special education enrollments and services. Contact the first author for the full list of survey questions.

These surveys were completed online for student participants using *Qualtrics*. General and special educators of the targeted student participants completed surveys for the student and class levels; school-level administrators (e.g., principals) completed surveys at the school level; and district personnel (e.g., special education directors) completed surveys for the district level. Management and monitoring of the survey completion processes were the responsibility of the individual research teams at the six universities, with a goal of achieving 100% representation for all 117 students across the four placements and at the four levels delineated above.

Data Analysis

Our research question asked whether contextual variables at the student, classroom, school, and district levels expressed substantially different values across the four placements. A study of this type, and with the magnitude of data that we had available to us, is unique in the professional literature; hence, we viewed our role as one of providing the field with concrete descriptions of distinct and different variables as they are expressed across the four placements. In some cases, specific variables spoke directly to the educational experiences of students in our sample in relation to their respective placements (e.g., types of curricula); in other cases, variables could have indirect effects (e.g., budgets). Hence, analyses within and across placements involved examining data at the item level, permitting characterization of both the experiences and opportunities of students in different placements, along with characterizing factors of a secondary nature that may indirectly affect their experiences and opportunities. Viewing this work as preliminary rather than conclusive, we chose to remain at this descriptive level, computing percentages and other measures on an item-by-item basis and generating tables that allowed us to compare and contrast quantitative values across the four placements.

The large volume of data also challenged us with respect to selecting variables that we should focus on and how to organize the presentation of findings. We examined all of the items in advance, choosing items for which literature could be identified that suggested importance in relation to the education of students with complex support needs. Then, as a team, we examined and grouped these items into themes, according to how they fit together, so that a conceptually coherent presentation of findings could be managed. Across all surveys, these themes were: (a) teacher preparation; (b) budget, enrollment, and urbanicity; (c) access to general education; (d) instructional materials and curriculum content; (e) teaching approaches; and (f) student supports and services. These tasks were accomplished before analyzing our findings; that is, variables analyzed and presented here were selected before we knew what the data would reveal.

Results

The *Student Demographic Survey* was completed for all 117 students in the sample. The completion rates for the *Classroom Demographic Survey* and the *School Demographic Survey* were 150 and 30, representing 92.3% and 53% of the student sample, respectively. The *District Demographic Survey* had a completion rate of 24 surveys, representing 65% of the students. Table 1 delineates the demographic data for students by educational placement, including grade level, disability classifications, gender, race, and ethnicity. Table 2 presents selected findings by educational placement across the six themes identified in the Methods section. Results are presented below in relation to the six themes, referring to Table 2 as appropriate.

Teacher Preparation

The *Classroom Demographic Survey* data represented 51 distinct general education classrooms and 55 special education classrooms, with 45 general educators and 67 special educators serving as respondents. The data were organized by students' educational placements. Some students had more than one teacher fill out a survey (i.e., a special educator and a general educator). In some cases, the same teacher filled out multiple surveys, one for each participating student they taught. Survey respondents were mostly female (90.4%), White (96.8%), and non-Hispanic/Latinx (89.8%), with a mean age of 39.1 years (range: 22–70 years). Their reported years of experience as teachers ranged widely from 1 to 37 years, averaging 12.4 years.

Data on teacher certification across the four placements revealed many teachers reporting more than one teaching certification, and four respondents held emergency certifications. Table 2 shows the distribution of general education, special education mild/high-incidence, special education cross-categorical, and special education severe/low-incidence certifications by educational placement. As shown in Table 2, teachers in Placements A and B reported holding general education certificates and special education cross-categorical certifications more frequently than teachers in Placements C and D. Special education teachers in Placement C reported holding severe/low-incidence certifications more frequently than teachers in the other placements. Special education teachers in Placement D reported holding mild/high-incidence certifications more frequently in comparison to teachers in all other placements.

Related to teacher preparation, one survey question addressed how often all teaching staff within a school were given opportunities for professional development related to students with disabilities. Across all schools (i.e., general education campus, special, charter), the majority of respondents (*n* = 25; 92.6%) reported that opportunities were rarely or never provided. Only two general education campus schools (7.1%) reported that professional development experiences for all staff related to students with disabilities were sometimes provided.

Budget, Enrollment, and Urbanicity

Districts differed in the reported availability of the different placement options, with less restrictive options more often reported as available than more restrictive options. Placements A and B were reported available in 95.5% and 86.4% of districts, respectively. Placements C and D were reported as options for students in 76.2% and 36.4% of districts, respectively. Most districts that offered Placement A did not offer the Placement D option (*n* = 14; 70%).

As shown in Table 2, districts' annual budgets and per special education student expenditure increased incrementally as districts offered more restrictive placements. Districts that offered Placement D had an average annual budget of 47.1 thousand more dollars compared to districts that offered Placement A. Districts that offered Placement D paid 8.2 thousand more dollars per student who received special education services compared to districts that offered Placement A. Furthermore, districts that offered Placement D had an average special education budget of 15.2 thousand more dollars compared to districts that offered Placement A.

Table 1. Student Demographics by Educational Placement.

Selected characteristics of student participants	Placement A		Placement B		Placement C		Placement D	
	N	%	N	%	N	%	N	%
Grade								
K	7	20	2	5.9	3	10.3	1	5.6
1	7	20	6	17.6	5	17.2	0	0
2	4	11.4	4	11.8	1	3.4	2	11.1
3	6	17.1	10	29.4	5	17.2	0	0
4	5	14.3	3	8.8	5	17.2	6	33.3
5	4	11.4	4	11.8	6	20.7	4	22.2
6	2	5.7	5	14.7	4	13.8	5	27.8
Nature of disability(ies)[a]								
Autism spectrum disorder	11	31.4	11	32.4	5	16.7	7	38.9
Intellectual disability	9	25.7	9	26.5	10	33.3	7	38.9
Multiple disabilities	5	14.3	7	20.6	10	33.3	6	33.3
Developmental disability	5	14.3	2	5.9	3	10	0	0
Other health impairment	5	14.3	5	14.7	2	6.7	0	0
Speech language impairment	1	2.9	4	11.8	1	3.3	2	11.1
Hearing impairment	0	0	1	2.9	0	0	2	11.1
Orthopedic impairment	0	0	0	0	0	0	2	11.1
Traumatic brain injury	0	0	0	0	0	0	1	5.6
Visual impairment	0	0	0	0	0	0	1	5.6
Gender								
Female	17	48.6	11	32.4	15	50	5	27.8
Male	18	51.4	23	67.6	15	50	13	72.2
Race[b]								
White	26	78.8	25	75.8	21	84	13	76.5
Black or African American	3	9.1	2	6.1	2	8	3	17.6
American Indian or Alaska Native	1	3	1	3	0	0	1	5.9
Asian	1	3	2	6.1	1	4	0	0
Native Hawaiian or Pacific Islander	0	0	0	0	1	4	0	0
Multiracial	2	6.1	3	9.1	0	0	0	0
Ethnicity[b]								
Hispanic or Latinx	4	12.5	3	9.4	7	26.9	1	7.7
Not Hispanic or Latinx	28	87.5	29	90.6	19	73.1	12	92.3
Total	35		34		30		18	

Note. Percentages are out of the total number of students in a placement.
[a]Nature of disability(ies) may include multiple responses per student and each percentage is out of the total number of students in a placement. [b]Missing race and ethnicity data are not included.

A majority of students in Placement D attended school in the city ($n = 11$; 61.1%) whereas students in Placements A ($n = 12$; 34.3%), B ($n = 8$; 23.5%), and C ($n = 5$; 16.7%) mostly attended schools in suburban, rural, or town areas. Overall student enrollment was higher in districts offering more restrictive placements. Districts that offered Placement D had 8.9 thousand more students on average compared to districts that offered Placement A.

Access to General Education

Access to general education classes and peers without disabilities during academic times varied in relation to restrictiveness of placement. Across all four placements, respondents indicated that all special education classes in their schools were composed of students from multiple grades. A common practice was to organize these classes such that students were in grade bands that were proximal to each other. For example, across general education campus schools, 37.5% ($n = 6$) of the special education classes were divided into grade

Table 2. Selected Findings From the Six Themes by Educational Placement.

Theme	Placement A		Placement B		Placement C		Placement D	
	N	%	N	%	N	%	N	%
Teacher preparation								
General education certification	30	79	42	53.8	18	35.3	7	22.6
Mild or high incidence certification	2	5.3	7	9.1	5	9.8	9	29
Cross-categorical certification	5	13.2	16	20.8	9	17.6	6	19.4
Severe or low incidence certification	1	2.6	12	15.4	19	37.3	9	29
	M	Ra	M	Ra	M	Ra	M	Ra
Budget, enrollment, and urbanicity[a]								
Annual district budget	238.1	6.7–907.9	263.1	6.7–907.9	279.8	6.7–907.9	285.2	3.6–780.4
District per special education student expenditure	9.6	1.5–28.4	9.9	4.6–28.4	10.1	4.6–28.4	17.8	6.5–28.4
District special education budget	73.1	0.7–468.1	65.8	2.8–468.1	44.4	2.8–416.8	88.3	2.8–468.1
District student enrollment	13.4	0.68-66	14.9	0.68-66	16.8	0.68–66	22.3	0.68–66
	N	%	N	%	N	%	N	%
Access to general education								
Included[b] in math	33	94.3	15	44.1	3	10	0	0
Included[b] in language arts	35	100	16	47.1	4	13.3	0	0
Included[b] in electives/specials	31	88.6	31	91.2	24	80	0	0
Instructional materials and curriculum content								
Academic materials at grade level	18	51.4	6	17.6	0	0	0	0
Academic materials at earlier level, preschool level, or none	8	22.9	19	55.9	24	82.8	16	88.9
Instruction based on adapted general education curriculum	23	79.3	12	66.7	0	0	4	33.3
Instruction based on teacher perception of meaningful content	6	20.7	6	33.3	14	100	8	66.7
Teaching approaches[c]								
Co-teaching	13	44.8	9	18.4	1	4	2	16.7
Student-selected small groups	21	70	21	43.8	15	62.5	5	35.7
Student independent work	29	96.7	48	94.1	20	83.3	11	64.7
1-1 direct staff instruction	24	80	44	86.3	28	100	16	94.1
Student supports and services[d]								
General education teachers	24	68.6	14	41.2	9	31	0	0
Special education teachers	23	65.7	11	32.4	1	3.4	0	0
1-1 paraprofessional	26	74.3	20	58.8	8	27.6	0	0
Peer supports	12	34.3	3	8.9	4	13.8	0	0

Note. Percentages calculated based on the number of total respondents not including missing data. Ra = Range.
[a]In thousands. [b]In the general education classroom with same-aged general education peers. [c]Used by teachers daily or weekly.
[d]Support in the general education classroom only.

bands of kindergarten to second grade and third to fifth grade. Nevertheless, 18.8% (*n* = 3) of the special education classrooms on these campuses had students ranging from kindergarten through sixth grade in one room. In separate schools, 25% (*n* = 6) of the classrooms grouped students together representing first to seventh grade, and an additional 20.8% (*n* = 5) of the classrooms reported grouping students "by ability."

Students were included in general education classes across a variety of academic (i.e., math, language arts, social studies, science) and nonacademic subjects (i.e., electives such as art and music), and this varied systematically by placement. Overall, students in Placement A were included on average 95.4% in general

education subject classes, followed by 56.9% of students in Placement B and 26.1% of students in Placement C. No students in Placement D were included in general education during any subjects. Table 2 shows the distribution of students included in general education with respect to math, language arts, and electives/specials by educational placement. As these data indicate, access to academic classes in math and language arts decreased from Placement A to C. While nonacademic electives/specials were prominent for Placement C (80%), they still lagged behind those same offerings in Placements A and B.

Across general education campuses, students in less-restrictive placements spent greater amounts of time with general education peers during academic coursework than students in more restrictive placements. Nearly half of students in Placement A ($n = 17$; 48.6%) spent between 3 and 5 hours per day and another 37.1% ($n = 13$) spent over 5 hours per day on academic coursework with general education peers. Half of the students in Placement B spent between one to three hours per day ($n = 17$; 50%) and another 26.5% ($n = 9$) spent less than 1 hour per day on academic coursework with general education peers. The majority of students in Placement C ($n = 22$; 75.9%) spent less than 1 hour per day with general education peers on academic coursework. Time spent with general education peers during nonacademic activities was similar across all three of these placements (1–3 hours); however, in contrast to the higher levels of contact time in Placements A and B, 27.6% of students in Placement C spent less than 1 hour per day in the company of general education peers.

Instructional Materials and Curriculum Content

Table 2 delineates the level of academic materials used and the type of instruction provided to students by educational placement. Students in Placement A were most likely to have academic materials that were at age/grade level with or without modifications followed by students in Placement B. No students in Placement C or D received age/grade-level materials with or without modifications. As placements became more restrictive, students were more likely to have earlier grade-level or preschool-level material regardless of the age/grade of the students. In addition, 13.8% ($n = 4$) of students in Placement C received no academic materials.

Students in Placement A and B were more likely to have access to the general education curriculum than in Placement C or D. Nevertheless, adapted general education curriculum—state, district, or school designed curricular materials for students with disabilities based on the age/grade-level general education standards—were also widely used for students in both Placement A and B. No students in Placement C and few students in Placement D received curriculum and instruction based on the general education curriculum. Alternatively, all students in Placement C and most students in Placement D received curriculum and instruction primarily based on activities that the classroom teacher perceived as "meaningful and engaging."

Commercially developed literacy and math curricula included pre-packaged curricula marketed as being designed for students with complex support needs (e.g., *Unique Learning System, Equals AbleNet Math).* Commercially developed curricula were used to some degree in all placements, though the range and intended use differed. Students in Placements A and B had access to a slightly larger variety of commercially developed curricula compared to students in Placements C and D. Nevertheless, the average number of commercially developed curricula used per student incrementally increased as placements became more restrictive (range: 1.5–3.3 per student). Approximately half of students in Placement B ($n = 37$; 53.6%) and Placement D ($n = 29$; 48.3%) experienced commercially developed curricula as their primary curriculum source. Students in Placement C ($n = 38$; 44.2%) were most likely to use commercially developed curricula to supplement special or general education curriculum, followed by Placement B ($n = 27$; 39.1%) and then Placement A ($n = 19$; 35.2%). Overall, students in Placement D were most likely to be provided with commercially developed curricula and were least likely to have access to the general education standards compared to students in all other placement settings.

Teaching Approaches

Educators across placements reported the frequency that they used various approaches to teach the curriculum described above. Co-teaching was most likely to be used in Placement A (see Table 2). Conversely, the

majority of teachers in Placement B ($n = 39$; 81%), C ($n = 23$; 92%), and D ($n = 10$; 83.3%) reported that co-teaching was used irregularly (i.e., less than once a month) or never. In terms of organizing the delivery of instruction, teachers in Placement A were more likely to use dyadic instruction, both teacher-selected ($n = 23$; 79.3%) and student-selected $n = 21$; 75%). In Placement B, 46.8% ($n = 22$) of teachers reported using teacher-selected dyads irregularly or never, followed by 75% ($n = 21$) of teachers in Placement C and 82.3% ($n = 14$) of teachers in Placement D. Similarly, most teachers reported irregularly or never using student-selected dyads in Placement B ($n = 26$; 57.8%), C ($n = 19$; 73.1%), and D ($n = 16$; 94.1%). Furthermore, as indicated in Table 2, daily or weekly use of student-selected small group instruction was most often reported as occurring in Placement A. Inversely, most teachers in Placement D reported irregular or no use of student-selected small group instruction ($n = 9$; 64.3%). Finally, teachers were more likely to have students working independently as placements became more inclusive (Table 2).

Staff-directed one-to-one instruction was most likely to occur in more restrictive settings. As shown in Table 2, all teachers in Placement C reported using this approach daily. Similarly, the majority of teachers in Placement B and D used staff-directed one-to-one instruction daily or weekly. Teachers in Placement A were more likely than teachers in other placements to use staff-directed one-to-one instruction irregularly ($n = 6$; 20%).

Reverse inclusion was also most likely to occur daily or weekly in Placement C ($n = 8$; 33.3%) followed by Placement A ($n = 5$; 19.2%). Placement A, however, had the largest percentage of teachers who identified never using reverse inclusion ($n = 20$; 77%). Teachers in Placement B ($n = 38$; 86.4%) and Placement A ($n = 22$; 73.3%) were most likely to use pull-out for related services daily or weekly. Nevertheless, the greatest percentage of teachers who identified never using pull-out for related services were those in Placement A ($n = 7$; 23.3%), followed by C ($n = 6$; 22.2%), D ($n = 2$; 11.8%), and then B ($n = 4$; 9.1%).

Student Supports and Services

Teachers reported on who supported students in their classes, responding to choices that included general educator, special educator, paraprofessional (one-on-one; roving; class-based), and peer tutor or buddy. As students' placements became more restrictive, teachers reported that students had less access to support from general education teachers or special education teachers within general education classrooms (see Table 2). Over half ($n = 15$; 53.6%) of teachers reported that special educators supported students in Placement A on a daily basis. Students in Placement C were least often supported by general and special education teachers in the general education classroom. No students in Placement D had access to general education classrooms.

While in special education classroom settings, students across all placements were likely to receive support from a special education teacher (range: 42.3-85.3%). However, compared to students in Placement A ($n = 10$; 28.6%), students in Placement B ($n = 27$; 79.4%), C ($n = 26$; 89.7%), and D ($n = 15$; 88.2%) were much more likely to receive support from paraprofessionals (one-on-one; roving; class-based) while in special education classrooms. Students across all placement settings received little to no support from general education teachers when in special education settings (range: 0-5.7%). However, nearly half of students in Placement A (42.3%) did not attend a special education classroom setting.

Across all placement settings, over 95% of teachers reported paraprofessionals were used daily within their classrooms (range: 96.7-100%). One-to-one paraprofessional support was especially prominent as placements became more inclusive (see Table 2). Overall, one-to-one paraprofessional support was the most utilized general education classroom personnel support for students across all three general education campus placements. In contrast to the reliance on paraprofessionals, peer supports were used far less frequently across all placements, including general and special education classrooms. Peer supports were, however, reportedly used more with students in Placement A while in general education classes (see Table 2). Students in Placement B, C, and D received little to no support from peers in special education classes ($n = 0$; 0%; $n = 1$; 3.5%, $n = 1$; 5.9%, respectively).

All districts reported having district-employed or contracted related service providers available, including physical therapists, occupational therapists, and speech-language pathologists (SLP). The frequency at which these specialists were present in educators' classrooms, however, varied by placement. For example,

while educators across all placements reported high rates of SLPs in their classrooms (range: 67.4-100%), 100% of educators in Placements C and D reported SLPs in their classes daily or weekly.

Discussion

Our research addressed whether there were differences in the opportunities, instruction, services, and supports received by elementary students with complex support needs relative to type of placement. Our inquiry treated placement as a complex concept, comprising potentially different and unique variable configurations across placements in: (a) the dimensions of setting, curriculum, instruction, and outcomes (Ryndak et al., 2013); and (b) the systems' hierarchy incorporating peer-, teacher-, classroom-, school-, and district-level factors (Ruppar et al., 2017).

Our findings uncovered a number of differentials by type of placement, supporting past studies that have examined contextual factors in different placements. Our findings are noteworthy in that they are based on a large data set representing a national sample, and they included input from general educators, special educators, and administrators. In this section, we refer to our findings and discuss their importance, following the six themes of the Results section. We also discuss limitations and implications of our findings.

Teacher Preparation

The quality of each student's education is no doubt influenced by the quality, comprehensiveness, and relevancy of the preparation of their teachers. As such, teacher preparation serves as a contextual variable that mediates student outcomes. Singer et al. (2017) noted a failure in current research to acknowledge the importance of teacher preparation, stating that studies often lack information about teacher awareness of and precision in implementing effective interventions or instructional practices. They suggested that studies should include demographic information (e.g., type of certification, years of teaching, gender, age, race, ethnicity, primary language) to better understand how teachers impact student learning.

Our study included much of this information, and some findings that raise questions and concerns. For instance, the finding that many teachers in Placement A and B held general education teaching certificates could be viewed as expected given the teaching roles within these placements; however, the finding that special education teachers in these placements were mostly certified to teach students with cross-categorical or mild/high-incidence disabilities raises questions about preparedness to provide consultative and other supports to general educators regarding students with complex support needs. Of course, "cross-categorical" certification is intended to prepare teachers to instruct and support a wide range of students on IEPs, but it remains unanswered whether such programs do so. Inversely, there is the risk that "severe/low-incidence" teacher certification programs narrow the range of teacher competencies such that graduates are ill-prepared for supporting students in general education. Clearly, it remains an important question as to what kinds of teacher preparation programs best provide the expertise needed to address the education of students with complex support needs when they are in general education environments. Also of interest is that more teachers who served students in Placement C had certification in "severe or low-incidence" than teachers who served students in Placement D, and many teachers in Placement D were certified in mild/high-incidence disabilities. This finding is unexpected in that one would presuppose that teachers serving students with complex support needs in the most restrictive setting would be most likely to be certified in that specialty area. In conjunction with research on the lack of preparedness of teachers in separate schools (Mason-Williams et al., 2017), this finding raises questions as to whether teachers serving students in Placement D adequately meet professional standards for the students they serve. Certainly, teacher certification standards per se go beyond what our study addressed; nevertheless, the inconsistencies in certification processes reflected in our data suggest disparities in teacher preparedness that require further investigation.

A second finding of concern was that schools provided little or no in-service training related to instruction for students with disabilities. We did not inquire as to the reason for the absence of these training opportunities; however, given the unique challenges of students with complex support needs, both general and special educators need expertise in evidence-based interventions and instructional practices to meet their learning needs.

Budget, Enrollment, and Urbanicity

We found that more restrictive placements were associated with higher expenditure per special education student. These results underscore the conclusions of Westling (2018), who reported that greater per student total expenditure does not equate to more students with disabilities being educated in general education classes. Our findings are consistent with this and raise the possibility of the inverse; that is, per student expenditures might be higher when districts rely heavily on more restrictive placements for educating students with complex support needs. We acknowledge that, of course, educational decisions should not be based on cost alone; nevertheless, money can be wasted in special education programs (Singer et al., 2017), so attention to cost is necessary from a district perspective and it warrants additional analysis.

The data related to geographic location and district enrollment suggested two potential relationships with placement. First, the data suggest that students in separate schools were more likely to be in urban areas, while students in less restrictive placements primarily were located in suburban, rural, or town areas. Second, the higher a district's student enrollment, the less time students spent in general education. Differential probabilities for more or fewer restrictive placements being associated with geographic location and district enrollment data are consistent with the findings of Brock and Schaefer (2015); that is, the more urban the district and the greater the enrollments, the greater the probability of more restrictive placements for students with intellectual disability, multiple disabilities, and autism. A belief often expressed by families and professionals is that the type and quality of education a student receives is based on where their family resides. For students with complex support needs, this might very well be the case.

We did not examine potential reasons for these patterns. Brock and Schaefer (2015) have proposed that the correspondence between urbanicity and placement might relate to urban areas having more students of color and/or living in poverty. In a related vein, White et al. (2019) explored the educational placements of students with intellectual disability, autism, and emotional disturbance in one large urban school district, finding that placement patterns paralleled historical redlining practices; that is, the majority of Black and Latinx students were educated near the center of the district, and the majority of White students were educated near the edges of the district. Furthermore, Black students in this district were more likely to be placed in more segregated settings compared to White students with the same disability labels.

Access to General Education

As previously noted, age/grade-level general education content is now recognized as appropriate for students with complex support needs (Hunt et al., 2012). Jackson et al. (2008-2009) proposed that meaningful access to this curriculum can be assured only if students are educated with their age/grade-level peers in general education classes. Their work indicated that attempting to import the general curriculum into self-contained settings fails to acknowledge the importance of targeted instruction at age/grade-level, teacher content expertise, and access to support from peers without disabilities. In addition, past research (Wehmeyer et al., 2003) has provided direct evidence that students are more likely to access the general education curriculum within general education settings than within special education settings. This study supports these points, presenting results across placements that favor less restrictive settings with respect to: (a) higher numbers of grade-specific classes, as opposed to multigrade classes; (b) higher numbers of academic content classes, rather than either elective classes or no content class offerings; and (c) greater access to peers without disabilities during academic instruction.

Given the findings of Gee et al. (2020) about differences in student outcomes between students served primarily in general education classes as opposed to special education classes, we note the wide differences in access to age/grade-level academic content proceeding from Placement A to Placement D. We also note that some separate schools grouped students in self-contained classes by "ability level." We cannot, of course, draw a direct causal connection; nevertheless, these data add weight to the hypothesis that differential access to general education content is occurring across placements, and implicate specifically targeted grade-level instruction; teachers with content expertise; and access to support from peers without disabilities.

Instructional Materials and Curriculum Content

Our findings about instructional materials and curriculum content extend the foregoing regarding access to general education. We found differences across types of placement regarding whether instructional materials were selected based on a student's age/grade level or on other criteria (e.g., earlier grades, teacher perceptions of content that is meaningful and engaging for the students). Selection of materials based on a student's age/grade level was highest for students in Placement A and dropped to "no age/grade materials" in Placement C and Placement D.

All of the students in self-contained classes, as well as most of the students in separate schools, had curriculum and instruction based on what their classroom teachers perceived as meaningful and engaging. Jackson (2014) observed a tendency for annual learning goals of students with complex support needs to essentially be "lists of skills" advocated by various IEP team members with different backgrounds and agendas. Unlike skill sets based on a curriculum with a coherent scope and sequence, such goals need be neither hierarchically developed nor reflective of particular relationships with each other. Under these circumstances, teachers must apply a "meaningful and engaging" approach to choosing what and how to teach. Consistent with Jackson, our findings raise doubts as to whether an appropriate education can ever be realized when such an approach defines and governs the content of instruction.

The choices teachers reported about specific curricula used for instruction yielded a more complex pattern. Across all four types of placement, there was reliance on various and quite different adapted and commercially-designed curricula, some based on their state's own "adapted standards." Nevertheless, use of commercially-designed curricula increased incrementally as placements became more restrictive.

In summary, our data suggest that students in less restrictive placements are more likely to receive instruction based on content derived from their age/grade-level curriculum. However, we also note that, across all four types of placement, teachers used widely diverse types of commercially-designed curricula, with no clear pattern in selection processes. We suggest that while some commercially-designed curricula claim to be aligned with age/grade-level standards, evidence of such alignment remains unclear, unestablished, or nonexistent for much of this material (Taub et al., 2020). Similar issues exist about "adapted" or "expanded" state standards (Jackson, 2014). Given the mixture of commercially-designed and adapted curricula used across the types of placement, our data raise questions as to: (a) how *implicit biases* (Gee et al., 2020) regarding disability characteristics are impacting what teachers consider to be "important" content for these students; and (b) the degree to which alternate curriculum sources are compromising access to general education instruction across all types of placement, but particularly Placements C and D, where age/grade-level materials are reportedly not used.

Teaching Approaches

Our findings on teaching approaches fall within three dimensions, including (a) student- versus teacher-centered instruction, (b) co-teaching versus solo teaching, and (c) reliance on pullout processes. With respect to the first, instruction was more likely to be student-centered in general education placements and more likely to be teacher-centered in more restrictive placements. As examples, both student-selected dyads and student-selected small group instruction were more likely to be reported in Placement A and least likely in Placement D. In addition, independent work by students was more likely to be reported in the less restrictive placements, and there was somewhat greater reliance on one-to-one direct instruction by staff in the more restrictive placements. With respect to co-teaching versus solo teaching, co-teaching practices were more likely to be reported as regular in Placement A and reported as either irregular or never used in Placements B, C, and D. Finally, with respect to reliance on pullout, although teachers in Placements A and B reported using pullout extensively for related services, Placement A teachers also reported the least overall use of pullout when compared with the other placements. Furthermore, if we view "reverse inclusion" as a form of pullout, in which students without disabilities are "pulled" to spend time with students with disabilities in their separate settings, then pullout also occurred less for students without disabilities when their peers with disabilities were placed together with them in the same general education classroom.

Taken together, the data suggest that student-centered learning, teacher collaboration during instruction, and pullout processes differ by placement, with greater student control over learning arrangements, greater co-teaching, and less overall pullout from one's assigned class being associated with Placement A. If we consider that a desirable outcome of the educational process is student independence that teachers teaching together has value added when compared with solo teaching, and that pullout services disrupt class membership and learning, these data implicate instruction within restrictive placements as possible impediments to student learning.

Student Supports and Services

The findings of our study address issues of both adult and peer supports for students educated across the four types of placement. Overall findings regarding adult supports revealed that: (a) students in placements that involved relatively high access to general education classes had more access to general education teachers; (b) students in Placement C, while on general school campuses, had notably less access to general education teachers; and (c) students in Placement D had no access to general educator teachers. Regardless of placement, one can see value in students having general educators contributing to their supports and services. Hence, the second overall finding that self-contained class placement on a general education campus (Placement C) was associated with low levels of access to general education teachers is concerning with respect to the accessibility of this expertise for meeting FAPE standards regarding access to age/grade-level general education curriculum. The third finding, while not unexpected, brings into question whether any separate class or school setting has the capacity to provide the context needed for access to and progress in general education grade-level content.

The finding regarding special educator support processes in both Placement A and Placement B is important. Students in these two types of placements, especially in Placement A, had a higher probability of *access to special educators in general education classrooms* than students in Placements C and D. Although the self-contained classes of Placement C are located on general education campuses, the probability of special educators supporting their students in general education settings was low, differing little from that reported for special schools.

Across all four types of placement, a large majority of teachers reported that paraprofessionals were used daily within their classrooms. What differed across placements, however, was the reported reliance on one-to-one paraprofessionals, with Placements A and B having the greatest probability of relying on student-assigned paraprofessionals. While perhaps not unexpected, concerns for this practice have a long history (Giangreco et al., 1997) and alternative forms of support are, indeed, available. One such alternative is the use of peer supports (Carter et al., 2016). These need not be structured arrangements; natural supports in classroom contexts that support students working together in both assistive and cooperative roles also can promote learning, relationships, and engagement (Jackson et al., 2008-2009). Our findings indicate that peer support was used little or absent altogether in Placements C and D.

Finally, with respect to the availability of related services, all districts indicated the availability of SLPs and other related services. However, in contrast to Placements A and B, all teachers in Placements C and D reported that SLPs were in their rooms daily or weekly. We cannot know from our data what "presence" in the classroom means with respect to how services are being provided (i.e., consultative, integrated, pull-aside); nevertheless, frequent therapist presence could be viewed as an educationally valuable form of support. However, we note that collaboration and role release are crucial elements of interdisciplinary processes, with their value acknowledged by the related services professions (e.g., American Speech-Language-Hearing Association, 1991). This suggests that it is not who delivers the educational activities driven by therapeutic goals, but whether they are being delivered with integrity and how often. We suggest that future research needs to compare the effects on student learning of models of service delivery that emphasize the *distribution* of learning opportunities across activities and persons, as opposed to the *concentration* of learning opportunities by specially-trained therapists. Such research could address whether or not "frequent classroom presence" of therapists adds value to the education of students with complex support needs.

Limitations

Although we present our findings as preliminary, our study offers evidence of differences in educational contexts in relation to the dimension of restrictiveness, and these differences appear to be of sufficient magnitude to warrant attention by researchers, school systems, and families. Nevertheless, there are limitations that require consideration when interpreting our results. First, our study overlapped with the COVID-19 pandemic when the virus was least understood and most contagious. As a result, all of the schools participating in the project were closed before our survey investigation was fully completed. While we believe that we have good returns for students and classrooms to perform the kinds of analyses offered here, lower returns at the school and district level suggest caution when considering these findings.

Second, multiple level surveys were used in our study, designed to yield data on a wide array of contextual factors. In addition, these surveys obtained information from multiple data sources, providing some basis for corroboration of obtained information. Nevertheless, the respondents were the teachers and service providers for the students themselves, and we did not collect independent, observational data to corroborate their reports. We acknowledge that a potential bias exists because the survey respondents were team members participating in the placement and instructional decisions for the students included in the sample. Furthermore, we did not conduct statistical analyses to determine the possible significance of our survey findings. Finally, we might have failed to include other contextual factors that warrant attention.

Third, although we collected teacher demographic information, we did not obtain information about (a) the teachers' specific experiences and interactions with students who have complex support needs during and following their preparation programs, (b) the teachers' beliefs and respective cultural backgrounds that might have influenced their services across the types of placement, and (c) whether and how team-based group dynamics might have influenced their perceptions and reports on services. Such details could have informed our findings further.

Fourth, while there is diversity in our student sample's racial and ethnic distribution, it may not accurately reflect state or school district proportions, and this should be considered when interpreting our reported urbanicity and placement findings. In a related vein, special schools may not be proportionally represented in our sample given their prominence as educational placements for students with complex support needs. This was not due to lack of recruitment but rather to rates of acceptance of our invitations to join the study. We believe, nevertheless, that a reasonable base exists for our across-placement contextual analysis, acknowledging that future research is needed to confirm, elaborate, or qualify our findings.

Finally, we have not included extensive data on specific learning capabilities of, or the extent of support needed by, individual students in various placements. However, we stress that the sampling procedures of the larger study selected students with complex support needs across placements for whom IEP teams deemed alternate assessment procedures to be appropriate.

Implications

The intent of our study was to determine whether critical differences existed across and between placement types on multiple contextual variables; that is, do different types of placement provide distinctly different educational experiences and/or opportunities to students with complex support needs? While study limitations impact our ability to assign exclusive causality to types of placement in relation to our results, we believe that our findings have implications for research and placement practices. Our data revealed that as placements became more restrictive (i.e., Placements C and D), evidence-based practices and supports that enhance and facilitate access and progress in the general education curriculum at age/grade level were either absent or underemployed. For example, students had *less* access to the general education curriculum, *less* interaction with and support from peers without disabilities during instruction, *less* time receiving academic instruction, *les*s use of age/grade-level curricula and materials, *less* support from general educators, and *less* instruction from co-teachers. Given the federal mandate to promote access to general education curriculum for all students, this finding is worrisome, in that students with complex support needs remain largely in segregated settings.

Contextual analysis posits that different types of placement could present properties that predispose students and instructional personnel to respond in particular and different ways. This implies that re-configuring services in more restrictive settings to make available curriculum and instruction that are present or more prevalent in less restrictive settings would be unlikely to meet with success, if even possible. Our results lend support to the proposition that offering students with the means to access general education curriculum has a contextual base, and that placing students in restrictive settings invariably compromises their opportunities to learn and make progress in that curriculum. What logically follows is that the practice of applying the LRE principle as an integral aspect of IEP decision-making most likely does not enhance educational opportunity; rather, it very likely reduces it for those students relegated to restrictive settings.

Finally, while our study was not designed to serve as a report card on the status of education for students with complex support needs, it in effect serves this purpose. Findings across multiple variables reveal patterns favoring inclusive placements and casting concerns on restrictive placements. Our results underscore with some urgency the need for IEP teams to understand and judiciously consider the potential impact of differing placements on student learning opportunities. Moreover, research examining placement characteristics and student learning outcomes should be given priority by funding agencies.

ORCID iDs

Lewis Jackson ![iD] https://orcid.org/0000-0003-2711-9944

Martin Agran ![iD] https://orcid.org/0000-0002-2919-6065

Dale Baker ![iD] https://orcid.org/0000-0002-1496-7461

Matt Jameson ![iD] https://orcid.org/0000-0002-5286-0534

References

Agran, M., Jackson, L., Kurth, J. A., Ryndak, D., Burnette, K., Jameson, M., Zagona, A., Fitzpatrick, H., & Wehmeyer, M. (2020). Why aren't students with severe disabilities being placed in general education classrooms: Examining the relations among classroom placement, learner outcomes, and other factors. *Research and Practice for Persons with Severe Disabilities*, *45*(1), 4–13. https://doi.org/10.1177/1540796919878134

American Speech-Language-Hearing Association. (1991). A model for collaborative service delivery for students with language-learning disorders in the public schools. *American Speech-Language-Hearing Association*, *33*(Suppl. 5), 44–50.

Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 et seq. (1990).

Ayres, K. M., Lowrey, K. A., Douglas, K. H., & Sievers, C. (2011). I can identify Saturn but I can't brush my teeth: What happens when the curricular focus for students with severe disabilities shifts. *Education and Training in Autism and Developmental Disabilities*, *46*(1), 11–21. https://www.jstor.org/stable/23880027

Brock, M. E. (2018). Trends in the educational placement of students with intellectual disability in the United States over the past 40 years. *American Journal on Intellectual and Developmental Disabilities*, *123*(4), 305–314. https://doi.org/10.1352/1944-7558-123.4.305

Brock, M. E., & Schaefer, J. M. (2015). Location matters: Geographic location and educational placement of students with developmental disabilities. *Research and Practice for Persons with Severe Disabilities*, *40*(2), 154–164. https://doi.org/40.10.1177/1540796915591988

Carter, E. W., Asmus, J., Moss, C. K., Amirault, K. A., Biggs, E. E., Bolt, D., Born, T. L., Brock, M. E., Cattey, G., Chen, R., Cooney, M., Fesperman, E., Hochman, J. T., Huber, H. B., Lequia, J., Lyons, G., Riesch, L., Shalev, R., Vincent, L. B., & Wier, K. (2016). Randomized evaluation of peer supports arrangements to support the inclusion of high school students with severe disabilities. *Exceptional Children*, *82*(2), 209–233. https://doi.org/10.1177/0014402915598780

Gee, K., Gonzalez, M., & Cooper, C. (2020). Outcomes of inclusive versus separate placements: A matched pairs comparison study. *Research and Practice for Persons with Severe Disabilities*, *45*(4), 223–240. https://doi.org/10.1177/1540796920943469

Giangreco, M. F. (2020). "How can a student with severe disabilities be in a fifth-grade class when he can't do fifth-grade level work?": Misapplying the least restrictive environment. *Research and Practice for Persons with Severe Disabilities*, *45*(1), 23–27. https://doi.org/10.1177/1540796919892733

Giangreco, M. F., Edelman, S. W., Luiselli, T. E., & MacFarland, S. Z. C. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children*, *64*(1), 7–18. https://doi.org/10.1177/001440299706400101

Hunt, P., McDonnell, J., & Crockett, M. A. (2012). Reconciling an ecological curricular framework focusing on quality of life outcomes with the development and instruction of standards-based academic goals. *Research and Practice for Persons with Severe Disabilities*, *37*(3), 139–152. https://doi.org/10.2511/027494812804153471

Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 et seq. (2004)

Jackson, L. B. (2014). What legitimizes segregation? The context of special education discourse: A response to Ryndak et al. *Research and Practice for Persons with Severe Disabilities*, *39*(2), 156–160. https://doi.org/10.1177/1540796914545960

Jackson, L. B., Ryndak, D. L., & Wehmeyer, M. L. (2008–2009). The dynamic relationship between context, curriculum, and student learning: A case for inclusive education as a research-based practice. *Research and Practice for Persons with Severe Disabilities*, *34*(1), 175–195. https://doi.org/10.2511/rpsd.33.4.175

Kurth, J. A., & Jackson, L. (2022). Introduction to the special topic issue on the impact of placement on outcomes for students with complex support needs. *Research and Practice for Persons With Severe Disabilities*, X(X), XXX–XXX.

Kurth, J. A., Born, K., & Love, H. (2016). Ecobehavioral characteristics of self-contained high school classrooms for students with severe cognitive disability. *Research and Practice for Persons with Severe Disabilities*, *41*(4), 227–243. https://doi.org/10.1177/1540796916661492

Mason-Williams, L., Bettini, E., & Gagnon, J. C. (2017). Access to qualified special educators across elementary neighborhood and exclusionary schools. *Remedial and Special Education*, *38*(5), 297–307. https://doi.org/10.1177/0741932517713311

Ruppar, A. L., Allcock, H., & Gonsier-Gerdin, J. (2017). Ecological factors affecting access to general education content and contexts for students with significant disabilities. *Remedial and Special Education*, *38*(1), 53–63. https://doi.org/10.1177/0741932516646856

Ryndak, D. L., Jackson, L. B., & White, J. M. (2013). Involvement and progress in the general curriculum for students with extensive support needs: K-12 inclusive-education research and implications for the future. *Inclusion*, *1*(1), 28–49. https://doi.org/10.1352/2326-6988-1.1.028

Sauer, J. S., & Jorgensen, C. M. (2016). Still caught in the continuum: A critical analysis of least restrictive environment and its effect on placement of students with intellectual disability. *Inclusion*, *4*(2), 56–74. https://doi.org/10.1352/2326-6988-4.2.56

Singer, G., Agran, M., & Spooner, F. (2017). Evidence based and values based practice for people with severe disabilities. *Research and Practices for Persons with Severe Disabilities*, *42*(1), 62–72. https://doi.org/10.1177/1540796916684877

Soukup, J. H., Wehmeyer, M. L., Bashinski, S. M., & Bovaird, J. A. (2007). Classroom variables and access to the general curriculum for students with disabilities. *Exceptional Children*, *74*(1), 101–120. https://doi.org/10.1177/001440290707400106

Taub, D., Apgar, J., Foster, M., Ryndak, D. L., Burdge, M. D., & Letson, S. (2020). Investigating the alignment between English Language Arts curricula developed for students with significant intellectual disability and the CCSS. *Remedial and Special Education*, *41*(5), 284–295. https://doi.org/10.1177/0741932519843184

The Rehabilitation Act of 1973, 29 U.S.C. § 701 et seq (1973).

Turnbull, A. (2020). Rights, wrongs, and remedies for inclusive education for students with significant support needs: Professional development, research, and policy reform. *Research and Practice for Persons with Severe Disabilities*, *45*(1), 56–62. https://doi.org/10.1177/1540796919896097

Wehmeyer, M. L., Lattin, D., Lapp-Rincker, G., & Agran, M. (2003). Access to the general curriculum of middle-school students with mental retardation: An observational study. *Remedial and Special Education*, *24*(5), 262–272. https://doi.org/10.1177/07419325030240050201

Westling, D. L. (2018). Inclusion in the United States: Correlations between key state variables. *International Journal of Inclusive Education*, *23*(6), 575–593. https://doi.org/10.1080/13603116.2018.1441340

White, J. M., Li, S., Ashby, C. E., Ferri, B., Wang, Q., Bern, P., & Cosier, M. (2019). Same as it ever was: The nexus of race, ability, and place in one urban school district. *Educational Studies*, *55*(4), 453–472. https://doi.org/10.1080/00131946.2019.1630130

Author Biographies

Lewis Jackson is an Emeritus Professor of Special Education at the University of Northern Colorado. Dr. Jackson is best known for his research on inclusive education and the effects of ecological variables on teaching and learning. He has been a Fulbright Scholar in the United Arab Emirates on Positive Behavior Support, has served on the TASH Board of Directors, and has advocated for families seeking access to general education settings and curriculum in their home school districts.

Martin Agran is an Emeritus Professor of Special Education at the University of Wyoming. Dr. Agran is noted as a leading researcher in the area of extensive support needs. He formerly served as editor of Research and Practice for Persons with Severe Disabilities, and he has served on the TASH Board of Directors.

Kirsten Rebecca Lansey is an Assistant Professor of Special Education at the University of Utah. Dr. Lansey's research is focused onmidentifying inequities in segregated educational placements of students with complex support needs and intersecting areas of diversity for educational reform.

Dale Baker is pursuing her Ph.D. in special education at the University of North Carolina Greensboro. Ms. Baker also works as an advocate, assisting parents in accessing special education services for their children. Her research interests focus on the inclusion of students with extensive support needs in general education contexts.

Somer Matthews is a Doctoral Candidate at the University of North Carolina Greensboro. Ms. Matthews research is focused on inclusive services for students with extensive support needs as well as sexuality and sexual education for people with disabilities.

Heather Fitzpatrick is an Assistant Professor of Special Education at Northwestern College. Dr. Fitzpatrick's research addresses opportunities to learn, inclusive education, and literacy instruction for students with extensive support needs.

Matt Jameson is an Associate Professor in Special Education at the University of Utah. Dr. Jameson's primary research interests include instructional strategies and inclusive educational procedures for students with significant cognitive disabilities. He has authored and coauthored journal articles and book chapters focused on the provision of a free and appropriate public education and highly qualified special education teachers, positive behavioral supports, instructional strategies used to support students with significant cognitive disabilities in inclusive settings, and evaluations of distance education and teacher preparation programs.

Diane Ryndak is a Professor of Special Education at the University of North Carolina Greensboro. Dr. Ryndak's research focus is on inclusive instruction for students with extensive support needs and sustainable school reform. She has been on the TASH Board of Directors, a Fulbright Scholar with Poland on inclusive instruction, and a collaborator with state departments of education for systemic school transformation.

Kristin Burnette is an Assistant Professor of Special Education at East Carolina University in Greenville North Carolina. Dr. Burnette recently completed her PhD at the University of North Carolina Greensboro with a focus on systemic sustainable change and inclusive education for students with extensive support needs.

Deborah Taub specializes in collaborative system-change for inclusive instructional practices within general education classes, lessons, activities, and routines. Dr. Taub is a member of the executive committee for the TASH board.