

Early Childhood Educators' Readiness Embrace Inclusion for Preschool-Age Children with Disabilities in California

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ABSTRACT

Despite the push to increase inclusive early childhood (EC) care and education programs to support the learning and development of all children, such programs remain rare in California where most preschoolers with disabilities receive special education services in special day classrooms. Developing inclusive programs requires EC educators who are committed to supporting inclusion. Using a survey of EC teachers in public and private programs, this study sought to identify factors that influenced the teachers' attitudes toward and self-efficacy for providing inclusive programs for young children with disabilities. While most of the teachers reported positive views of inclusion, they reported less comfort with the idea of supporting children with disabilities in their programs. Examinations of the teachers' education and experience levels suggest that experience with children with disabilities influences teacher comfort while education may influence understanding of law.

KEYWORDS

inclusion, early childhood, teacher education

ARTICLE HISTORY

Received May 25, 2022

Revised February 15, 2023

Accepted April 27, 2023

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The least restrictive environment (LRE) mandate in federal special education law states that “[to] the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled” (Individuals with Disabilities in Education Act, 2004, §300.114(a)(2)). Establishing options for young children with disabilities to be educated with their preschool peers in California, however, has been difficult due to historical differences in the establishment, funding, and requirements for public early childhood education (ECE) and

early childhood special education (ECSE) programs. Public ECE programs include Head Start and the California State Preschool Program (CSPP), which provide free or reduced-priced preschool options for children whose families qualify based on income requirements. Meanwhile, ECSE – which provides services for preschoolers with disabilities who are eligible for specialized academic instruction through an individualized education program (IEP) – has been primarily the responsibility of local school districts. As districts developed their ECSE programs, few were able to establish relationships with the federally- and state-funded schools to set up sustained inclusive educational opportunities for young children with disabilities, despite the provision that Head Start programs maintain 10% of spots for children with IEPs. This explains, in part, why only 27.3% of preschool-aged children with disabilities in California attended regular early childhood programs for at least 10 hours a week in 2018, while 33.8% attended a separate special education program or school and 29.6% received services at other locations than early childhood programs (U.S. Department of Education, 2018).

Early Childhood Inclusion

In addition to the legal requirements outlined in IDEA, research has highlighted the efficacy of inclusive programs where children with and without disabilities learn in the same environment. As described by Odom et al. (2011), positive outcomes of inclusive ECE include “belonging, participating, and forming positive social relationships” (p. 347). Indeed, the issue of *belonging* is central to the definition of inclusion. In a joint position paper by the Division for Early Childhood and the National Association for the Education of Young Children (DEC/NAEYC, 2009), inclusion is defined as the “values, policies, and practices...” that allow young children with disabilities to be “full members of families, communities, and society” (p. 2). TASH’s (2021) position statement on inclusive education echoes this emphasis on belonging with the statement that all students should be “welcomed as valued and contributing members” of the schools they attend.

In addition to the value of inclusion for establishing belonging, the literature suggests that experience in inclusive ECSE and pre-kindergarten programs has positive impacts on the development of communication, social skills, self-regulation, and cognitive skills for children receiving special education services. For example, when children with disabilities were placed in inclusive preschool classrooms, they appeared to benefit from exposure to their peers even in instances when their teachers do not specifically implement interventions to facilitate the children’s language improvement (Justice et al., 2014; Mashburn et al., 2009). Although it was noted that these benefits appeared to be stronger in classrooms with more successful classroom management strategies, this research suggests that children with disabilities experienced gains in language development due to exposure to their classmates’ use of language in the classroom.

Other research has examined factors that result in successful inclusive early childhood learning environments to explore pedagogical moves that benefit children’s learning and development. For example, Warren et al. (2016) explored factors that resulted in successful implementation of an inclusive learning model in a full-inclusion preschool program run by a school district. They found that the positive outcomes for both children with and without disabilities were associated with pedagogical moves the teachers used, including a focus on establishing an engaging curriculum, differentiating instruction, play-based instruction, and careful monitoring of children’s learning. These practices are consistent with the embedded instruction approach for delivering inclusive early childhood education programming (Snyder et al., 2013), which includes a process of using data to determine priority learning objectives for

children, when and how to address these objectives within ongoing classroom activities, and the use of ongoing observation and data collection to revise and refine instructional plans as children demonstrate their learning. A recent review and meta-analysis of 10 studies on embedded instruction found that this strategy is highly effective in supporting learning in a range of developmental domains, including cognitive, language/communication, motor, and adaptive domains, with an effect size of 0.80 (Gulboy et al., 2023). This research highlights the importance of planned instruction in addition to the potential benefit of exposure to peers young children with disabilities experience in inclusive early learning programs.

The combination of federal policy, research, and theoretical foundation supporting inclusive programs for young children with disabilities, the California Department of Education (CDE, 2009) has encouraged the development of inclusive environments for children with disabilities over the use of self-contained special education classrooms. Despite this, as noted above, most preschoolers with disabilities are not receiving services in inclusive classrooms. There are many factors influencing this, including teacher preparation in early childhood.

Teacher Preparation for Inclusive ECE Practices

As was highlighted in the research on embedded instruction, it is important to remember that children with disabilities require additional support to be successful in inclusive classrooms. Kwon et al. (2011) recommend that, at a minimum, adults who work with children with disabilities be aware of their students' IEP goals and implement interventions based on these objectives. In order for ECE teachers to be able to provide this level of meaningful support in inclusive programs, however, preparation programs need to prepare them to understand individual children's diverse needs and to use interventions effectively. Given the larger class sizes and higher child-to-adult ratios in regular ECE programs, it is particularly important that ECE teachers are prepared to work collaboratively with their special education counterparts to provide effective support to each child with an IEP for successful inclusion to occur.

Many ECE teachers, however, do not have the training and knowledge necessary to address the unique needs of children with disabilities in their program (Kwon et al., 2017; Mitchell & Hedge, 2007). This is often the result of requirements for ECE teacher preparation. For example, although it is crucial that ECE teachers are well prepared to provide quality instruction to children with and without disabilities, the State of California Commission on Teacher Credentialing (CTC) does not require special education coursework for a provider to qualify for a Child Development Teacher Permit to work in CSPP classrooms (California Commission on Teacher Credentialing, 2022). Similarly, despite the requirement that Head Start programs set aside 10% of slots to be available for children with disabilities who have IEPs, the federal program does not specify coursework about or experience working with children with disabilities as part of the requirements for working as a teacher (National Center on Early Childhood Development, Teaching and Learning, 2018).

This is particularly problematic given data from the U.S. Department of Health and Human Services and the U.S. Department of Education (2015, 2016) that more than 50% of public and nonpublic preschool teachers reported expelling at least one student in the past year. As noted in their joint policy statement in 2015, teachers who are unprepared to work with children with disabilities may expel children due to challenging behavior while undiagnosed disabilities go undetected. This practice also indicates that many ECE teachers may lack the knowledge of developmentally appropriate behavior support strategies or may not be aware of possible resources offered by their local education agencies to identify and support children with disabilities.

Meanwhile, teachers with higher education and higher experience levels are more aware of the developmental needs of children and better prepared to utilize information from observations and assessments to create meaningful long-range goals for children (Manning et al., 2017; Trawick-Smith & Dziurgot, 2009). These skills are critically important for ECE teachers as they will work with children with identified or unidentified disabilities and are often the first to raise concerns about a child's development. In contrast, teachers who have less education would likely have less knowledge of child development and of strategies to support child development. These teachers may be more reactive when approaching child's needs and issues related to classroom management, introducing supports and interventions that may be unnecessary or inappropriate for the children in their care.

Opportunities to engage in field experiences in inclusive programs allow preservice teachers to put their knowledge in practice, preparing teachers to respond to the wide range of needs their children bring into the classroom (Atilas et al., 2012). Teachers who had such experience reported higher levels of self-efficacy, or the belief that they were capable of teaching all children, which translates to improved developmental outcomes for the children in their care. Moreover, teachers with high efficacy were less likely to make referrals to special education than those with low efficacy. This research base suggests that ECE teachers' education and field experiences affect their confidence to work with children with disabilities, and that their knowledge and experience benefit children without disabilities as well.

Despite the fact that the Child Development Teacher Permit does not include coursework in special education services, the California Department of Education promotes inclusive practice. Furthermore, recent moves to establish universal prekindergarten through the expansion of CSPP and transitional kindergarten (TK) programs in districts (the first of a two-year kindergarten program) have emphasized the expectations that these programs serve children with and without disabilities. The statewide data on LRE, however, suggests that inclusion is far from the norm. If inclusion is to be the norm, qualifications and perceptions of ECE teachers toward inclusion must be examined to determine what is hindering the progress toward successful inclusive practice.

Teachers' Perceptions of Inclusion

Despite the efficacy of inclusion in ECE described above, given the lack of preparation for teaching children with disabilities, it is still unclear whether ECE teachers who work with children with disabilities are comfortable including them in their general education classrooms. A recent review of the literature on preservice teacher attitudes toward early childhood inclusion in the United States found that many teachers held generally positive views of the impact of inclusion for young children with and without disabilities (Yu & Cho, 2022). Despite these favorable attitudes, however, the literature reviewed also revealed that many prospective teachers had reservations about their own ability to implement inclusion in their programs, particularly related to their ability to address children's specific and unique learning needs or potential challenging behavior in the classroom. Furthermore, the literature revealed that a significant number of preservice teachers believed that special classrooms would better serve children with disabilities compared to inclusive programs. For example, Barned et al. (2011) noted a discrepancy between preservice teachers' favorable views of inclusion and their views that children with autism spectrum disorder (ASD) would be better served in a special education class taught by special education teachers. These findings suggest that teacher candidates may not understand the disability and what it means to implement inclusive programs.

Preservice teachers' coursework and fieldwork experiences influenced their views on inclusive education. Mitchell and Hedge (2007) found that higher levels of education, opportunities for training, and teacher quality and efficacy were positively related to teachers' practices and beliefs about inclusion. However, when teachers lacked knowledge and experience in working with children with disabilities, even teachers with higher levels of education in ECE felt uncomfortable with inclusion. The more experience teachers had working in inclusive schools and the more children with disabilities they had worked with were positively related to their confidence levels, regardless of education level (Huang & Diamond, 2009). On the other hand, when receiving teachers lacked knowledge and experience in working with children with disabilities, they were more likely to have a negative perception of inclusion (Huang & Diamond, 2009). Such attitudes may be the result of misconceptions about the child's needs due to a lack of awareness of the meaning of the categorical disability labels used in special education. These studies indicate that many ECE teachers were uncomfortable receiving children with disabilities in their programs without adequate training. Meanwhile, such training courses are not required to teach preschool in California.

The purpose of this study was to examine whether ECE teachers in California felt prepared to work with children with disabilities, and whether teachers' experience and knowledge in special education were related to their comfort levels when they worked with children with disabilities. This study surveyed teachers employed at National Association for the Education of Young Children (NAEYC) accredited private preschools, federally funded Head Start programs, and state-funded CSPP classrooms to answer the following research questions:

- How are ECE teachers prepared to teach children with disabilities;
- How do ECE teachers' training and experience in working with children with disabilities affect their comfort levels when they receive a child with disabilities to their classrooms; and
- How do ECE teachers' training and experience in working with children with disabilities impact their perceptions of inclusion in general?

Method

Setting and Sample

The researcher identified 455 NAEYC-accredited private early childhood centers, 74 Head Start grantees, and 224 state preschool contractors in the state of California. The researcher contacted the director of each program via email with a request to participate in the survey. The directors who were willing to participate agreed to distribute the survey link to the teachers in their programs who had at least 12 college units in ECE and worked with children aged 3 to 5 years in a preschool setting. A total of 120 ECE teachers started the survey, with 103 of them completing it. Respondents who did not complete the survey were excluded from the analysis. Of the 102 teachers who responded, this study specifically focused on the responses of 22 private preschool teachers, 36 Head Start teachers, and 31 state preschool teachers. The remaining respondents were excluded from this study because they were employed at other publicly funded programs ($n = 12$) or did not respond to demographic questions ($n = 2$). See Table 1 for teacher demographics.

Most of the respondents (93%, $n = 83$) had some experience working with children with disabilities. Speech and language impairment (84%, $n = 70$) and autism (84%, $n = 70$) were the top two disabilities identified. The participants who did not have children with disabilities in their

classrooms at the time of the survey or had not worked with children with disabilities in the past responded only to the questions about their perceptions of inclusion.

Table 1. ECE Teacher Demographic Information

Demographic Information	Frequency	Percentage
Type of program*		
Private	22	24.7
Head Start	36	40.5
CA State Preschool	31	34.83
Years of Experience		
Less than 1 year	1	1.1
1-5 years	14	15.7
6-10 years	20	22.5
More than 10 years	54	60.7
Education		
High school/Associate degree/some college	25	28.1
Bachelor's degree	41	46.1
Master's degree	23	25.8
Qualification		
12 ECE units or more	6	6.7
Associate teacher permit	4	4.5
Teacher permit	8	9.0
Master teacher permit	56	62.9
Other	15	16.85
Training in Special Education		
Yes	62	69.7
No	27	30.3

*All programs were NAEYC-accredited.

Measure

The researcher developed a 35-item survey using the Qualtrics online survey software. The first part of the survey consisted of 20 multiple choice questions related to teacher demographic information including: (a) current employment locations; (b) years of experience in the field; (c) highest level of education; (d) types of qualification to teach early childhood education; (e) years of experience working with children with disabilities, (f) types of training in special education they received; and (g) their classroom settings (e.g., the size of the class, teacher-student ratio, and the types of disabilities the children had).

The remaining 15 questions pertained to the dependent variables of interest: the teachers' comfort levels in working with children with disabilities in their classrooms and the teachers' levels of understanding of special education related knowledge. These consisted of (a) seven 5-point Likert scale statements to measure levels of agreement of the teachers' familiarity with special education practices including the IEP process and the teachers' perception of their own ability to manage inclusive classrooms; (b) 5-point Likert scale statements to measure levels of

agreement with statements regarding their comfort levels with working with children with disabilities; and (c) four 5-point Likert scale questions regarding their perceptions of inclusion.

Prior to dissemination of the survey, the instrument was reviewed by two faculty members at an institute of higher education who had knowledge of survey design and experience working with early childhood educators. They provided feedback on the content and structure of the survey. Following this review, two ECSE teachers who had taught in inclusive programs were selected to review and respond to the survey twice to determine content validity and reliability. After the reliability was established, two ECE teachers, two Head Start teachers, and two state preschool teachers were invited to the pilot study. The survey was further refined based on the feedback from the pilot study participants. The survey is available from the authors upon request.

Data Analysis

Qualtrics and SPSS were used to analyze the data generated from this survey. In the first round of analysis, descriptive statistics summarized the responses across teachers from private preschools, Head Start, and state preschools. Next, comparisons were made using ANOVA < post-hoc *t*-tests, and independent-samples *t*-tests. Specifically, these analyses examined whether the teachers' levels of education, program type, and participation in training affected their knowledge levels, comfort levels, and perceptions of inclusion in general. One-way ANOVAS were used to compare the respondents' levels of agreement to six statements based on their level of education and program type. Then the respondents' levels of agreement with six Likert scale statements were examined: (a) *I understand the IEP process and know what responsibilities I have related to IEPs for the children in my class*; (b) *I understand each student's IEP goals and know what I need to do to support the students to achieve those goals*; (c) *I feel I am able to equally support the development of both children with and without disabilities*; (d) *I feel comfortable and excited to welcome a child/children with special needs into my classroom*; (e) *I feel not all children with special needs do well in classrooms designed for children without special needs*; and (f) *I feel most children with special needs will benefit from inclusive educational settings to learn age appropriate skills from children without special needs with effective teacher support*. Finally, independent-samples *t*-tests were conducted to measure the significance of the differences in the respondents' levels of agreement to the same six statements depending on whether they received training to work with children with disabilities or not. The data is presented for each research question.

Results

ANOVAs were completed to determine whether teachers from the three program types had significantly different levels of education, training (i.e., specific classes or workshops taken related to inclusive education), and years of experience. There was no statistically significant difference ($p < .05$) in these measures of knowledge and experience for these three groups of teachers. Data from the three groups were therefore combined in all other analyses.

Teacher Preparation and Training

The first research question asked how ECE teachers are prepared to work with children with disabilities. This section will examine the respondents' self-report of their teacher preparation

coursework and their participation in additional training opportunities to learn about meeting the needs of children with disabilities.

Demographics

One hundred and twenty ECE teachers responded to the survey, with 89 teachers from NAEYC-accredited private programs, Head Start programs, and state funded programs completing most of the survey questions. More than seventy percent (71.9%, $n = 64$) of the respondents held a bachelor's degree or higher. Nearly 60% of the teachers ($n = 53$) had more than 10 years of experience in the field, 24% ($n = 21$) had 6-10 years of experience, and only 17% ($n = 15$) teachers had 5 years or less experience. Regarding state-issued certification to teach early childhood education, more than 70% (72%, $n = 64$) of the teachers held an Early Childhood Education Teacher Permit or a Master Teacher Permit. Moreover, 70% ($n = 62$) reported that they had received training to work with children with disabilities. Therefore, this sample comprised highly qualified teachers in terms of educational background and their levels of qualifications to teach preschool-aged children with sufficient years of experience in early childhood education.

Levels of Education and Training

More than 80% (83%, $n = 19$) of the teachers who held a master's degree and nearly 70% (68%, $n = 28$) of the teachers who held a bachelor's degree reported they had taken one or more college courses related to special education. Meanwhile, only 36% ($n = 9$) of the teachers who either graduated from high school or took some college courses as well as those who held an associate degree or a certificate reported taking one or more college courses related to special education. On the other hand, 65.9% ($n = 58$) of all the teachers reported attending more than one seminar or workshop on working with children with disabilities. However, only half ($n = 12$) of the teachers who either graduated from high school or took some college courses as well as those who held an associate degree or a certificate reported taking seminars or workshops related to working with children with disabilities in the past while 71% ($n = 29$) of the teachers who held a bachelor's degree and 74% ($n = 17$) of the teachers who held a master's degree or higher reported the same. A majority of the private teachers (93%, $n = 14$) and the state preschool teachers (86%, $n = 18$) reported they had taken these seminar(s) or workshop(s) for their own information. This contrasts to the Head Start teachers who completed seminars and workshops, who were more likely to report that they took the seminar(s) or workshop(s) to fulfill the requirement from the employers (46%, $n = 13$) in addition to reporting they took the seminar(s) or workshop(s) for their own information (54%, $n = 15$).

Knowledge and Comfort Levels

The second research question asked about the impact of teachers' training and experience in working with children with disabilities and their reported levels of knowledge and comfort with having a child with disabilities in their program. In line with previous findings (Yu & Cho, 2021), these data were skewed toward ratings showing favorable attitudes toward inclusion. However, because ANOVA remains a robust test for difference between means for moderate samples even with non-normal data (Blanca et al., 2017), one-way ANOVA was used to evaluate the differences between the groups below.

Table 2. IEP Knowledge, Comfort Levels, and Perceptions by Level of Education

Construct	High school, some college, A.A., certificate		B.A.		M.A. or higher		One-Way ANOVA*
	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	
	Knowledge and Comfort Levels						
Understanding IEP process	21	2.33 (1.23)	39	2.26 (1.12)	22	1.77 (1.15)	1.60(.209)
Understanding IEP goals	21	2.33 (1.32)	38	2.13 (.99)	22	1.86 (1.08)	0.98(.380)
Ability to equally support children with and without special needs	25	2.60 (1.08)	41	2.39 (1.11)	23	2.83 (1.40)	1.01(.368)
Excited when receiving children with special needs (comfort with inclusion)	25	2.28 (1.10)	41	2.27 (1.14)	23	2.26 (1.05)	0.00(.998)
Perceptions of Inclusion							
Not all children with special needs do well in inclusion**	24	3.25 (1.39)	41	3.80 (.87)	23	4.14 (.72)	5.05(.008)
Most children with special needs benefit from inclusion	25	1.96 (1.02)	41	2.05 (.87)	23	1.70 (.77)	2.57(.311)

Note. Strongly agree=1, Agree=2, Neutral=3, Disagree=4, Strongly disagree=5;
IEP=Individualized Education Program. **df* = 2 for all analyses ** = item was reverse coded

Levels of Education

Respondents were grouped based on three levels of education: (a) high school graduate, some college, associate degree, or certificate (28%, $n = 25$); (b) bachelor's degree (46%, $n = 41$); and (c) master's degree or higher (26%, $n = 23$). Their knowledge and comfort levels toward inclusion were then compared using one-way ANOVA (see Table 2). These results indicated that there was no significant difference in their levels of agreement of understanding of the IEP process and their responsibilities related to their students' IEPs depending on their levels of education. Moreover, there was no statistical significance on their agreement with their understanding of students' IEP goals their ability to support both children with and without disabilities, and their comfort levels when they received children with disabilities. These results suggest that the teachers' levels of education did not affect their reported knowledge levels and comfort levels when working with children with disabilities.

Table 3. IEP Knowledge, Comfort Levels, and Perceptions by Program Type

Construct	Non-Public		Head Start		State Preschool		One-Way ANOVA*
	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	F(p)
Knowledge and Comfort Levels							
Understanding IEP process	19	2.42 (1.35)	34	1.91 (1.06)	29	2.24 (1.15)	1.32(.27)
Understanding IEP goals	18	2.28 (1.18)	33	1.79 (.99)	30	2.37 (1.13)	2.50(.09)
Ability to equally support children with and without special needs	22	3.00 (1.16)	36	2.28 (1.19)	31	2.58 (1.15)	2.63(.08)
Excited when receiving children with special needs (comfort with inclusion)	22	2.36 (1.22)	36	2.25 (1.18)	31	2.23 (.92)	0.11(.90)
Perceptions of Inclusion							
Not all children with special needs do well in inclusion**	22	3.64 (1.18)	35	3.83 (1.04)	31	3.74 (1.00)	0.22(.80)
Most children with special needs benefit from inclusion	23	2.09 (1.07)	36	2.08 (.87)	31	1.65 (.71)	2.57(.08)

Note. Strongly agree=1, Agree=2, Neutral=3, Disagree=4, Strongly disagree=5; IEP=Individualized Education Program. * $df = 2$ for all analyses ** = item was reverse coded

Types of Programs

One-way ANOVAs were then performed to examine the differences in levels of education, qualifications (i.e., level of ECE permit held), and years of experience in the field across the three program types (Head Start, State Preschool, and non-public programs). As mentioned above, results indicated there was no significant difference in education levels across program type, $F(2, 86) = 1.79, p = .17$. Moreover, there was no significant difference among those groups of respondents regarding their qualifications, $F(2, 86) = 1.62, p = .20$, whether they had received training in working with children with disabilities or not $F(2, 86) = .29, p = .75$, and years of experience in the field, $F(2, 86) = 2.74, p = .07$.

Despite the similarities in terms of levels of education, training, and qualifications across programs, attitudes toward inclusion did appear to differ based on program type. For example, while one-way ANOVA indicated there was no significant difference in their levels of agreement

with the statement, *I feel I am able to equally support the development of both children with and without special needs*, $F(2, 86) = 2.63, p = .08$, it was noted that nearly 70% of the Head Start teachers (69%, $n = 25$) responded they strongly agreed or agreed while just about half of the state preschool teachers (52%, $n = 16$) and less than half of the private teachers (45%, $n = 10$) did so. Meanwhile, the comfort level of the teachers as measured by strongly agreeing or agreeing to the statement, *I feel comfortable and excited to welcome a child/children with special needs into my classroom* did not appear to differ across program types, $F(2, 86) = .11, p = .90$. Less than 60% of the private teachers (55%, $n = 12$) and the state preschool teachers (58%, $n = 18$), and nearly 70% of the Head Start teachers (67%, $n = 24$) strongly agreed or agreed to this statement. These results suggest that the Head Start teachers seemed to have more confidence in their ability to equally support their students than the private and state preschool teachers while their comfort levels were very similar to the teachers from the other programs.

Table 4. IEP Knowledge, Comfort Levels, and Perceptions by Training Received

Construct	Received Training		No Training		Independent Samples t-test* t(p)
	n	Mean (SD)	n	Mean (SD)	
Knowledge and Comfort Levels					
Understanding IEP process	73	2.08 (1.16)	9	2.67 (1.12)	1.43(.157)
Understanding IEP goals	72	2.06 (1.10)	9	2.56 (1.13)	1.26(.203)
Ability to equally support children with and without special needs	75	2.52 (1.18)	14	2.79 (1.25)	0.77(.445)
Excited when receiving children with special needs (comfort with inclusion)	75	2.16 (1.04)	14	2.86 (1.23)	2.24(.028)
Perceptions of Inclusion					
Not all children with special needs do well in inclusion**	74	4.32 (1.16)	14	3.71 (1.68)	-1.67(.099)
Most children with special needs benefit from inclusion	75	1.85 (0.82)	14	2.36 (1.15)	1.98(.051)

Note. Strongly agree=1, Agree=2, Neutral=3, Disagree=4, Strongly disagree=5; IEP = Individualized Education Program. *Equal variances assumed; two-sided p reported

** = item was reverse coded

Training

The next line of analysis examined the impact of receiving training on working with children with disabilities on teachers' reported knowledge and comfort levels for supporting children with disabilities in their programs (see Table 4). The respondents reported higher levels of education and training on this topic than anticipated, with 65% ($n = 58$) reporting completing college coursework on the topic and 63% ($n = 56$) reporting completing workshops and training on the topic. In total, 84% of respondents ($n = 75$) had some form of training on meeting the needs of children with disabilities, while 16% ($n = 14$) did not. Independent-samples t -tests were run to compare these two groups. Levene's test for equality of variances was performed for all variables and it was determined that equal variances could be assumed.

While there were not any significant differences between the two groups' reported knowledge and understanding of the IEP process and IEP goals or their perceived ability to support children with and without special needs equally, the differences between the two groups on their agreement with the statement *I feel comfortable and excited to welcome a child/children with special needs into my classroom* was significantly different. Exploring the data further, it was revealed that 50% of the teachers ($n = 6$) who disagreed or strongly disagreed to the statement, did not take any college courses related to special education while 63% of the teachers ($n = 35$) who took one or more college courses agreed or strongly agreed to the same statement. At the same time, 67% ($n = 8$) of the teachers who disagreed or strongly disagreed to the same statement did not take any seminars or workshops regarding special education while 72% of the teachers ($n = 38$) took one or more seminars and agreed or strongly agreed that they felt comfortable having children with disabilities in their classrooms.

Teacher Perceptions Toward Inclusion in General

The third research question examined the impact of ECE teachers' training and experience with working with children with disabilities on their perceptions of inclusion in general. These attitudes were assessed based on two questions. The first asked the respondents their feelings about whether all children would do well in inclusive environments while the second asked if they believed that most children would. This section will report on these data.

Levels of Education

One-way ANOVA indicated that there was a significant difference in agreement with the statement, *I feel not all children with special needs do well in inclusive educational settings* and the respondents' level of education, $F(2, 85) = 5.05, p = .008$. Post-hoc t -tests indicated there was a significant difference in agreement with this statement between the teachers with high school diploma, some college, associate degrees, or certificates ($M = 2.75, SD = 1.39$) and the teachers with master's degrees ($M = 1.83, SD = .72$), $t(45) = 2.84, p = .007$. Specifically, teachers who held a master's degree were more likely to report they felt that not all children with disabilities would do well in inclusive settings than teachers with less education. However, when they were asked if they felt *most children with special needs benefit from inclusive setting to learn age-appropriate skills from children without special needs with effective teacher intervention*, a large number of teachers (79%, $n = 70$) agreed or strongly agreed with the statement, and there was no statistically significant differences among groups based on their educational levels, $F(2, 86) = 1.18, p = .31$.

Types of Programs

One-way ANOVA revealed that there was no statistically significant difference in the agreement with the statement, *I feel not all children with special needs do well in inclusive educational settings*, for teachers from the three program types, with 70% of teachers agreeing or strongly agreeing with this statement. At the same time, 79% of the respondents ($n = 70$) from private, Head Start, and state preschool programs agreed or strongly agreed to the statement, *I feel most children with special needs benefit from inclusive settings to learn age appropriate skills from children without special needs with effective teacher intervention*. The results indicated that a proportionate number of teachers from all three programs agreed that not all children would do well in inclusive placements, but they felt most children with disabilities would benefit from inclusion if teachers knew how to use effective interventions.

Training

T-test results indicate that there was no significant difference between those who had received training and those who had not received training on supporting children with disabilities in terms of their agreement with the statement, *I feel not all children with special needs do well in inclusive educational settings*. Differences in responses to the statement, *I feel most children with special needs benefit from inclusive settings to learn age appropriate skills from children without special needs with effective teacher intervention*, however, were approaching significance, with teachers who had received training either through college coursework or workshops and professional development agreeing with this statement more than those who had not received such training.

Discussion

In the current study add to the research on ECE teacher preparation for and attitudes toward teaching children with disabilities in their classrooms. Specifically, the relationships between types of experiences (education, training, and practical experiences) and ECE teachers' responses to questions about their attitudes and comfort levels in supporting inclusive education were explored. Previous research has highlighted discrepancies between teacher attitudes toward inclusion in general and their attitudes and willingness to include children with disabilities in their programs (Barned et al., 2011; Yu & Cho, 2022). This study identified specific factors that influenced teachers' attitudes toward inclusion and comfort receiving children with disabilities in their programs, including level of education, type of program in which the teacher was employed, and specific training related to supporting children with disabilities. It is particularly important to understand factors that impact ECE teachers' willingness to support inclusion in their own programs in order to establish meaningful learning environments in which children with and without disabilities learn and grow together.

Factors Impacting Teacher Knowledge and Comfort With Inclusion

None of the factors investigated in this study – education level, program type, or training received – appeared to influence teachers' knowledge about the IEP process or IEP goals. Similarly, there did not appear to be any difference in teachers' self-reported ability to equally support children with and without disabilities based on education level, program type, or training received. This was somewhat surprising as only one program type – Head Start – has an explicit mandate to

include children with IEPs. One would think that teachers in this program would, therefore, be more familiar with both the IEP process and IEP goals and have more confidence in their ability to support these children. On average, teachers rated their understanding of both the IEP process and IEP goals and their ability to support children with and without disabilities between *neutral* and *agree*. Given that understanding students' IEP goals and the IEP process is a critical component to engaging in meaningful inclusive teaching practices, and that all staff members who work with children with disabilities should understand their IEP goals to work more effectively with their students (Kwon et al., 2011), these findings suggest more work needs to be done to specifically prepare ECE teachers to be active participants in their students' IEP development and implementation.

That being said, more than half of the respondents of the current study reported that they were comfortable receiving children with disabilities. This comfort level appeared to be related to whether or not they had received specific training in working with children with disabilities rather than their education levels or program type. This was in line with previous research that suggests specific training for inclusion increases comfort with working with children with disabilities (Mitchell & Hedge, 2007).

These findings suggest that increasing the levels of education for ECE practitioners alone will not be sufficient to increase perception of inclusive education. Instead, a critical component of teacher preparation for inclusive practice must include specific courses and training experiences focused on meeting the needs of children with disabilities in inclusive ECE classrooms. Furthermore, it is important for instructors for such training experiences to understand that increasing comfort alone will not ensure that ECE teachers have the understanding of the IEP process, goals, and strategies necessary for successful inclusion experiences.

Factors Impacting Teacher Perceptions of Inclusion

In addition to understanding special education process, inclusion strategies, and feeling comfortable including children with disabilities, it is important to interrogate ECE teachers' perceptions of inclusion in general. According to the theory of planned behavior (Ajzen 1991; 2020), intention to change behavior is influenced by both perceptions of one's ability to change the behavior (e.g., self-efficacy) and attitudes toward the behavior. In this case, it stands to reason that when teachers have negative perceptions of inclusion, they would be less likely to engage in the necessary work of transforming their programs to meet the needs of children with disabilities. This study explored ECE teachers' perceptions toward inclusion using two questions: first, whether they viewed inclusion as beneficial for all children, and second whether they agreed that inclusion is beneficial for most children. This is an important distinction as the answers to these questions align with different philosophical orientations toward inclusion: the full inclusion philosophy in which disability is constructed as an interaction between the individual and the environment, with the onus on the teacher to adjust the environment to remove barriers to access, versus the integration philosophy in which individuals with disabilities can be invited into classrooms so long as they can "adjust to the standardized requirements" of the classroom (Graham, 2020, p. 13).

On average, the ECE teachers surveyed for this study agreed with the statement *not all children with special needs do well in inclusion*, indicating that they do not embrace the philosophy of full inclusion. While there were no distinctions based on training received or program type in response to this question, education seemed to have a significant effect. Teachers with more education were more likely to agree with this statement, thus rejecting the philosophy of full inclusion. There are a variety of ways to explain this result. One is that teachers who had lower

levels of education were more likely to be assistant teachers rather than head teachers, and would therefore have had less managerial responsibilities than those who had higher levels of education and, as a result, showed more favorable view of inclusion than the teachers with more responsibility for developing the curriculum and monitoring the implementation of IEPs. Alternatively, it could be that some portion of the content included in the courses teachers with master's degrees or higher completed led them to believe that children with atypical development were better served in special programs.

On the other hand, most of the ECE teachers survey for this study agreed with the statement *most children with special needs benefit from inclusion*, with those who had received training related to supporting children with disabilities appearing to agree with this statement more. In rejecting the notion that all children benefit from inclusive education, but maintaining that this remains a beneficial environment for most children, these teachers appear to be embracing the philosophy of integration. In the current study, the participating teachers worked primarily with children with ASD and speech and language impairment (SLI) compared to children with other types of disabilities. It has been well documented that children with disabilities that impact their ability to communicate effectively, such as is the case for children with ASD and SLI, are more likely to engage in challenging behaviors (Durand & Moskowitz, 2015). These findings may indicate that teachers recognize the need for more professional support to address challenging behaviors as they relate specifically to the needs of children with ASD and SLI. One common strategy for addressing the needs of children with more significant behavior challenges that may disrupt instruction includes providing one-on-one support, but research suggests that the staff who provide such additional support frequently do not have adequate training or experience in working with children with disabilities to meet the needs of the program (Breton, 2010; Douglas et al., 2016). It may be that the teachers have had the experience of providing what appears to be a significant amount of supports (an additional staff member), which was not beneficial given the staff member's lack of training, and have thus concluded that it is not possible to adequately address these children's learning needs in the general education environment. It is also possible that ECE teachers may recognize that some children with more severe disabilities may need individualized supports that they are not familiar with, resulting in a belief that not all children would benefit from the inclusive environment. This suggests a need to provide ECE teachers with knowledge and experience related to a wide range of disabilities and some intervention techniques in their preparation programs or through professional development to increase their comfort levels and perceptions of inclusion.

Limitations and Future Directions

Although this study provides valuable insights into the preparation needs of ECE teachers, it is not without limitations. First, a high percentage of teachers who had 10 or more years of experience in the field took the survey; therefore, their overall knowledge and confidence levels may be higher than expected for novice teachers. Second, due to the high response rate of teachers with a master's degree or higher, there is a possibility that these data do not represent the perceptions of ECE teachers with less education. Third, some respondents did not answer all of the questions, because they were not obligated to answer all the questions. It is not clear why these respondents skipped individual questions and it is possible that the responses that were submitted were biased. Moreover, the online survey platform was not set to allow respondents to return to previous questions for the purpose of avoiding overanalyzed responses, but it is possible that respondents

would have answered questions differently if they had been presented in a different order. Lastly, the response rate of the NAEYC-accredited private preschool teachers was much lower than that of the teachers from Head Start and state preschools, which raises questions about the generalizability of these findings.

In the future, more research needs to be conducted on how teachers with less teaching experience feel about working with preschool age children with disabilities in their general education classrooms. The perception of teachers who work with children with disabilities at preschools that do not possess NAEYC accreditation also needs to be examined. In addition, open-ended questions should be added in order to solicit more specific opinions of ECE teachers about their experience and perceptions of inclusion. Finally, research similar to this study should be conducted in other states with higher rates of inclusion than that found in California as teachers in those states may have different attitudes and perceptions. Results could be compared to the results from this study to determine whether the Department of Education in each state is aware of teachers' experience and perceptions toward inclusion. The results could help improve current ECE teacher preparation programs and ECE inclusion practices and increase the number of participating schools in this type of programming. Despite these limitations, these findings provide valuable insight on the needs of ECE practitioners and, based on these needs, special education and inclusion coursework and practicum experiences to prepare students to work with children with disabilities should be included in teacher preparation program requirements.

Implications

This research points to an important area of need in the preparation of ECE practitioners. Although most of the respondents to this survey were highly qualified teachers and had a favorable view of the integration of children with disabilities in general education classrooms, a significant number of respondents agreed that they did not feel completely comfortable working with children with disabilities. There are several possible avenues to addressing these findings. First, if local education agencies increased the number of special education teachers who work in regular preschool programs, either as itinerant teachers or co-teachers, ECE teachers who have children with disabilities in their classrooms would obtain more support and learning opportunities. If these providers were able to participate in school-wide support during staff meetings and through a mentor support system, they may be able to address many of the concerns that teachers who are new to inclusion feel. In this way, all teachers who are involved would benefit from sharing information and techniques when working with children with disabilities even in the future. While Head Start programs, state preschools, and larger childcare providers may have the infrastructure to develop such partnerships with school districts, more thought may need to be given to meeting the needs of small-scale childcare providers.

In addition to providing support through district partnerships, it is necessary to consider the preparation of ECE providers. Teacher preparation programs should consider requiring a course on evidence-based practices to work with children with disabilities. In particular, the respondents had most frequently reported including students with ASD and speech and language impairments, suggesting that today's ECE teachers must know what to expect when they have children with these disorders enrolled in their programs. As this study clearly demonstrated, teachers who had experience in working with children with disabilities were more comfortable having children with disabilities in their classrooms. Teacher preparation programs should, therefore, collaborate with their local school districts to create opportunities for teacher candidates to volunteer in special education or inclusive classrooms to gain this valuable experience in

addition to providing practicum opportunities in special education classrooms.

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