

2002

## **Best Practice, Actual Practice And Teacher Training In Early Childhood Special Education In Indiana**

Emma Beatrice Jurrens  
*Indiana State University*

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**BEST PRACTICE, ACTUAL PRACTICE AND TEACHER TRAINING IN  
EARLY CHILDHOOD SPECIAL EDUCATION IN INDIANA**

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**A Dissertation**

**Presented to**

**The School of Graduate Studies**

**Department of Educational and School Psychology**

**Indiana State University**

**Terre Haute, Indiana**

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**In Partial Fulfillment**

**of the Requirements for the Degree**

**Doctor of Philosophy**

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**by**

**Emma Beatrice Jurrens**

**May 2002**

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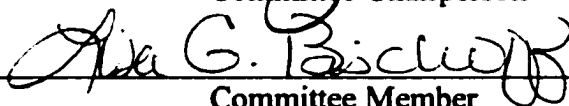
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APPROVAL SHEET

The dissertation of Emma Beatrice Jurrens, Contribution to the School of Graduate Studies, Indiana State University, Series III, Number 894, under the title *Best Practice, Actual Practice and Teacher Training in Early Childhood Special Education in Indiana* is approved as partial fulfillment of the requirements for the Doctor of Philosophy Degree.

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## **ABSTRACT**

The degree to which actual practice conforms to research-based best practice in early childhood special education, in the state of Indiana, was the primary focus of this study. The relationship between best practice and actual practice in different types of inclusive early childhood settings and in different geographical locations, as well as the association between practice and teacher education level were also examined.

Participants were directors and lead teachers from inclusive early childhood programs in school districts throughout the state of Indiana. Participants were surveyed, by mail, using an instrument designed and pilot tested by the researcher. Items on the survey addressed a range of professional practices including multidisciplinary collaboration, teacher training, attempts to involve families in the special education process, and the use of assessment. Internal consistency and item-total score analyses were used to identify scales and subscales that were psychometrically inadequate. Results were analyzed using independent t-tests, chi-square analyses, biserial correlations and multiple regression analyses. Major findings were that on many aspects of best practice private and public schools, and metropolitan and rural schools were comparable. However, private schools reported higher levels of multidisciplinary collaboration and support to families, and schools in metropolitan areas reported more support to families, as well as more attempts at family involvement. In terms of student/staff ratios, public and private schools were

comparable, but public schools were found to serve a higher percentage of students with special education needs. With regard to teacher education, public schools reportedly employ more teachers with only high school or associate's degree level training, but also more teachers with graduate degrees. Finally, employing more than one undergraduate or graduate level teacher is generally predictive of closer adherence to best practice.

## ACKNOWLEDGEMENTS

In appreciation of their assistance and support throughout my doctoral studies, culminating with this dissertation, I wish to acknowledge and thank my committee members, friends and family. First, without the guidance of my committee chair, Dr. Michael W. Bahr, I would not have known how to begin or have been disciplined enough to stay on track and see this project through to a successful completion. Mike, for all of your support I truly thank you, your mentorship has been invaluable. Second, to my committee members, Drs. John Olsen and Lisa Bischoff, thank you for your comments and feedback from beginning to end. You've helped me see the forest and the trees.

Thank you to my friends, some have gone through the dissertation process and could share firsthand experiences with me, for others that process is still to come but you were there to commiserate with me nonetheless. Lisa, Michelle, Natasha and Sara, I'd have been lost without your friendship and support. To my family, thank you for thinking that this entire Ph.D. was a big deal (it was!) and for being proud of me every step of the way. You've played a huge role in my ability and motivation to get to where I am, and I hope you know how much I appreciate that and love you all. Finally, to Shannon, my husband and best friend, thank you for being there and still being there. I would not have achieved this without you and there are no words to express how much your patience, support, encouragement and love mean to me.

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## Chapter 1

### INTRODUCTION

Federal and state special education laws specify that students with disabilities and their families should receive special education and related services and elaborate on how said services are to be provided. Early childhood associations and agencies, such as the National Association for the Education of Young Children and the Council for Exceptional Children, have developed best practice in early childhood special education. Empirically derived data (Bruder, Staff, & McMurrer-Kaminer, 1997; Buysse, Wesley, Bryant, & Gardner, 1999; Udell, Peters, & Templeman, 1998) support the position that certain practices - teacher training, instruction, and classroom environment - promote better development in young children, including those with disabilities.

Inclusion is one practice that has been found to be beneficial in the healthy development of young children. Some schools operate as inclusive settings, providing special services to children with disabilities alongside typically developing or non-disabled children, rather than in self-contained settings. Additional predictors of successful child development include high quality programming, advanced teacher education, multidisciplinary collaboration, attempts at family involvement and limited formal instruction. Literature pertaining to developmentally appropriate practice and

early childhood special education is available, but work that ties together the different facets appears to be lacking. What is needed is a good understanding of how actual practice is influenced by recommended or best practice.

The primary purpose of the proposed research was to examine the application of best practice to actual practice. A secondary aim was to investigate the relationship between best practice and actual practice in different types of settings offering services to the early childhood special education population. The final overall objective was to explore the association between type of services available to children with special needs and their families and teacher education level. Toward these ends, the next section reviews relevant literature related to five aspects of early childhood special education. First, special education legislation pertaining to the preschool population is discussed. Next, the concept of inclusion is defined and summarized. Third, quality of programming is reviewed. Then, teacher training needs as well as methods are summed up. Finally, best practice and actual practice in early childhood education and special education are evaluated.

### Special Education Legislation

During the past 20 years, several pieces of legislation pertaining to services for young children with special needs have been enacted. In 1986, Public Law 99-457, an amendment to the Education of the Handicapped Act, recognized the importance of the families of children with disabilities by mandating that services be provided not only to children with special needs but also to the families of those aged 0 to 6 years. In 1991, this legislation was updated through the Individual with Disabilities Education Act



(IDEA). The major components of IDEA that deal with early intervention services are Part H and Section 619 of Part B.

IDEA's Part H (1986), now Part C, was intended to improve the ability of families to meet the needs of their children. Although legislation has not required states to provide early intervention, financial incentives and training support have been provided to those states interested in serving zero to three-year-olds. Part C supports statewide, comprehensive and multidisciplinary services based on collaboration between community agencies to provide high quality, family-centered programming for infants and toddlers with, or at-risk for, developmental disabilities (Saunders, 1995).

Bruder et al. (1997) reference Part H in their examination of early intervention services within child development centers. They point out that when first introduced the goals of Part H were clear - to enhance the development of children, to lower the future costs of education, to increase the capacity of families to meet their own needs, and to increase the likelihood of independent living for those with disabilities. Despite these goals, however, Bruder and colleagues assert that since Part H was introduced, questions have been raised continually as to how to implement early intervention services in order to meet the goals.

Section 619 was designed to provide for services to 3- to 5-year-olds. Funding under Section 619 is provided through the Preschool Grants Program. Services included under Section 619 are special education and related services, such as development and implementation of Individual Education Plans (IEP), assistive technology services, counseling, occupational therapy, physical therapy, and speech-language therapy.

## Inclusion

“IDEA has challenged providers of service to young children with disabilities to provide services . . . in natural community settings alongside children without disabilities” (Udell et al., 1998, ). According to Bruder et al., (1997), the provision of services to children in naturalistic settings (i.e., those in which children with and without disabilities attend educational programming together) is known as inclusion. The terms inclusion, integration, and mainstreaming are often used interchangeably; however, proponents of inclusion assert that the concepts actually have very different meanings. All children in inclusive settings attend the same program all of the time, whereas, children being “mainstreamed” or “integrated” spend only a portion of their time in the classroom with typical peers (Udell et al., 1998).

The debate over an accurate definition of the term “inclusion” has gone on for many years. Odom (2000) discussed the controversy over definition. He remarked that some define inclusive settings as those in which the number of children with and without disabilities match the ratio in the general population; by contrast, others believe that at least one-third of enrolled students should be students with disabilities. Still others are of the opinion that there must be a critical mass (at least 50%) of students with and without disabilities. Besides ratios, debate exists over the type of disabilities that should be considered in determining whether a program is inclusive. For example, some assert that inclusive settings must “include” children with severe disabilities.

Despite the lack of a firm definition, Odom (2000) concludes that many professionals agree that certain characteristics must be present if a program is to be considered inclusive. He describes a primary characteristic of an inclusive program as

physical membership (i.e., that children with disabilities be around their typical peers for the majority of the school day). Initially, inclusion focused on placement – merely placing children with disabilities in programs with typically developing peers. However, long-running debate and unsuccessful trials at inclusion have demonstrated that placement alone is not sufficient and that active involvement in the activities and daily routines of typical peers is necessary in order for children with disabilities to benefit from inclusion placement (Hammeter, 2000). Another critical element of inclusion, according to Brown, Odom, Li, and Zercher (1999), is social integration, or the involvement of children with disabilities in similar social interactions, both initiating and receiving, and to a similar degree as their typical peers.

The concept of inclusion emerged in the early 1970's but did not become a major service alternative until the 1990's. Hammeter (2000) marks the transition to more inclusive programming as occurring in the mid-late 1980s. In 1983, she concluded that early childhood special education occurred mostly in segregated (i.e., self-contained special education programs) settings and primarily employed highly educated special educators who used predominantly didactic teaching strategies. In 1990, she found that early childhood special education was occurring more often in inclusive settings with teachers who had some training in early childhood education and/or special education. According to a 1998 U.S. Department of Education report (Brown et al., 1999), of the preschool children with disabilities receiving special services, more than half are enrolled in some sort of inclusive program. Settings providing inclusive services to the early childhood population range from community-based childcare to Head Start classes to public school classes. Wolery & McWilliam (1998) conducted a national survey and

concluded that “94% of Head Start programs, 73% of public school prekindergarten programs, 82% of the kindergarten programs in public schools, and 59% of community childcare programs . . . enrolled at least one child with disabilities” (p. 95). In these settings, service delivery varies from direct teaching to itinerant teaching to team or collaborative teaching (Odom, 2000). Despite these promising statistics, Harvey, Voorhees, and Landon (1997) claim that inclusive preschools remain the exception in many school districts.

Inclusion is based on the recommended practices of early childhood education and early intervention. The National Association for the Education of Young Children (NAEYC; 1993) and the Division for Early Childhood (DEC; 1993) of the Council for Exceptional Children have adopted position statements advocating inclusion and developmentally appropriate practice in early childhood settings. McDonnell, Brownhill, and Wolery (1997) cite research that supports the contention that programs accredited by NAEYC, thereby following NAEYC guidelines have benefits over non-accredited programs, including teachers with more formal education and specialized training, higher quality ratings and better compensation and conditions. Wolery and McWilliam (1998) list several benefits of following the NAEYC guidelines as shown in Table 1.

Odom (2000) maintains that even in inclusive settings, specialized and individual instruction is a must for children with disabilities, but he is unclear about the form and intensity of such instruction. Wolery and McWilliam (1998) identified several approaches to ensuring individualized services to children with disabilities, such as direct service by itinerant specialists, collaboration/consultation between itinerant specialists and classroom teachers, and team teaching.

As the practice of inclusion in early childhood settings increases, so does the need for modifications to instructional techniques and teacher training in order to serve students with disabilities and their families adequately. There are many challenges to implementing inclusion effectively. Harvey et al. (1997) cite a dearth of knowledge about how to develop and maintain inclusive programs. Gallagher (1997) maintains that classroom-based early childhood special educators need to be reoriented into the role of consultant in order for inclusion to be efficient and effective. Additionally, there is a well-documented lack of qualified staff to serve the preschool special education population and their families (Gallagher, 1997; Gallagher & Gabrielson, 1999). Further, the lack of higher education programs, the high rate of staff turnover, incongruities between common and best practice, low wage rates and poor conditions, professional concerns over own ability, and a lack of required competency-based standards all stand in the way of widespread adoption of a policy of inclusion (Gallagher, 1997; Gallagher & Gabrielson, 1999; Odom, 2000; Winton, 2000). Also among the barriers to the effective implementation of inclusion are a lack of high quality early childhood programs and a lack of adequate staff development (Palsha & Wesley, 1998). Thus, evidence of related problems abounds in the literature.

### Quality of Programming

Quality of programming correlates highly with cognitive growth, social competence, and language development in young children (Buysse et al., 1999; Palsha & Wesley, 1998). The five dimensions typically examined in studies of early childhood program quality are classroom dynamics, classroom structure, classroom staff

characteristics, administration and support services, and parent involvement (Buysse et al., 1999). Empirical data indicate that the availability of high quality programs in the United States is severely limited (Buysse et al., 1999). Buysse et al. (1999) and Palsha and Wesley (1998) found that most early childhood programs rated poor to mediocre in terms of quality, with only 1 in 7 being of adequate quality to promote healthy development in young children. Given these statistics, the quality of existing early childhood education programs may be insufficient for young children with special needs (Buysse et al., 1999). Smith (2000) stresses that historically federal policy on ECSE has emphasized access over quality.

In a 1999 study conducted by Buysse and colleagues, the quality of early childhood classrooms was examined using classroom observations, teacher self-ratings, and demographic information. Participants were comprised of 180 community-based early childhood sites in 12 geographically diverse regions, including church-sponsored, public, private, and Head Start settings. The Early Childhood Environment Rating Scale (ECERS) was used to assess areas consistent with classroom structure, and an author-created rating scale was used to assess teacher's knowledge and skills of child development and inclusion. Three important findings emerged: (1) inclusive programs scored significantly higher on ECERS ratings than non-inclusive programs, (2) programs with teachers with childcare credentials scored significantly higher than those with teachers without childcare credentials, and (3) programs with teachers with bachelor's degrees scored significantly higher than programs without teachers with bachelors degrees. A possible explanation for these conclusions is that inclusive sites may attract teachers with more education and more financial and material resources. Buysse et al.

(1999) made several recommendations based on the results of their work, including “inservice training for child care providers related to serving young children with disabilities and their families, whereas training content for early childhood special educators should incorporate consultation skills and competencies in developmentally appropriate practices” (p. 308).

Palsha and Wesley (1998) contend that “one of the most important discriminators between good and mediocre care is staff development and education” (p. 243). These authors studied quality using an on-site consultation model. Participants included consultants, who were recruited through states agencies responsible for administering Part C and childcare programs, and consultees, who were childcare providers, childcare assistants and directors, preschool teachers and aides, and a speech-language pathologist. Consultants received inservice training on collaborative consultation, stages and techniques of consultation, use of environment rating scales, and development and evaluation of technical assistance plan. Consultants provided services at sites where they had already established a working relationship, making 10-14 visits, each lasting 1-4 hours, over 6-12 months. Most sites rated poor to mediocre on environment ratings at the outset of the investigation. At the conclusion of the study, consultants and consultees reported satisfaction with the on-site consultation model, and environment ratings for all sites were above minimal quality standards. Staff development was attained through the collaborative relationship between the consultants and the consultees during the on-site consultative visits.

Odom (2000) purports that there are two main dimensions to the quality of preschool inclusion – “the quality of the early childhood setting . . . [and] the nature of

the program for individual children with disabilities” (p. 21). He reports a general, empirically-based conclusion among professionals that inclusive programs are of equal or higher quality than special education or general education programs but adds that it is the ongoing responsibility of parents and program personnel to evaluate program quality on a continual basis. As to the nature of the program, Odom identifies important classroom and program characteristics, such as parent involvement opportunities, inter- and intra-disciplinary collaboration, program philosophy, support services, and staff training opportunities.

### Teacher Training

Teacher training takes several forms, including formal college-level education, preservice and inservice professional development activities, and inter- and intra-disciplinary consultation and collaboration. Hammeter (2000) contends that the current trend toward inclusion has implications for teacher training. As previously mentioned, the lack of higher education programs and adequate teacher training in best practice and in early childhood general or special education is an obstacle to achieving high quality inclusive programming (Gallagher, 1997; Gallagher & Gabrielson, 1999; Harvey et al., 1997; Winton, 2000).

Phillips (1994) suggests collaborative training programs for early childhood and elementary education educators. Her reasoning is that each group can learn from one another. Early childhood education is a fledgling field still trying to establish a career ladder, preparation programs, and compensation schedule, although elementary education is a firmly established field struggling to modify the existing structure with emphases on



family-school collaboration, cultural pluralism, and child-directed learning. Although the discussion of combined training for early childhood and elementary educators is valid, it does little to alleviate problems associated with teacher training related to special education, but it does make evident the variation in training of early childhood personnel.

The lack of consistency in early childhood education training is in part the result of two sets of standards – regulatory standards and voluntary professional standards. Regulatory standards refer to the minimum qualifications required by law, which vary from state to state. NAEYC has been influential in defining voluntary standards for teacher preparation programs, which include training based on child development, cultural sensitivity and the use of multicultural techniques, parent involvement and cooperative leadership (Phillips, 1994).

#### Formal Education and Certification

Teacher education has been cited repeatedly as an important characteristic of high quality early childhood education problems. In their review of literature, Buysse et al (1999) state that teacher education level is positively correlated with child development outcomes. These authors found that programs employing teachers with bachelor's degrees or early childhood credentials scored higher on the ECERS than programs employing teachers with only a high school diploma. Unfortunately, only a small proportion of early childhood teachers have bachelor's degrees (Buysse et al., 1999).

Saunders (1995) stated that those working with children with disabilities should be educated and demonstrate the skills and competencies necessary to provide effective service. Udell et al. (1998) go a step further by asserting that early childhood special education should have college-level preparation and supervised experience in child

development and education. According to Jones and Rapport (1997), early childhood educators have a responsibility to increase their knowledge continually. Further, special education professionals have an obligation to share information with, provide resources for, and advise their general education colleagues in order for community-based inclusive programs to work (Jones & Rapport, 1997).

Harvey et al. (1997) point out that few teacher preparation programs prepare students to teach in inclusive settings, or settings in which they might encounter a child with disabilities. Interinstitutional/interagency partnerships appear to be necessary to facilitate knowledgeable and prepared personnel, but according to Winton (2000), this type of relationship is not common within communities. She reports that teaching faculty “. . . need and can’t find quality early childhood practica sites where inclusion is being practiced” (p. 88) and program directors “. . . need and can’t find [specialists] who can work in consultative roles in childcare settings” (p. 88). She goes on to say that new educators enter practice ill-equipped to implement inclusion because as students they were unable to see effective inclusion due to the lack of quality practicum sites. Federal agencies, such as the Office of Special Education Programs (OSEP), provide grants to university-based preparation programs that focus on collaboration between higher education and the community, but once funding is exhausted, the multidisciplinary focus typically vanishes (Winton, 2000).

In the position statements of NAEYC (1994), DEC (1993, revised 1998), and the Association of Teacher Educators regarding personnel standards, philosophical assumptions and certification standards are outlined. The NAEYC statement recommends that standards be created based on empirical knowledge and “. . . clearly

articulated philosophical assumptions about what constitutes effective early childhood education and early intervention for young children with special learning and developmental needs and their families” (p. 1). Among the philosophical assumptions expressed are the importance of collaborative relationships and cultural competence, the significance of family involvement, and the preference for providing services in inclusive settings. Recommendations regarding the content of certification standards include that the standards a) have a basis in the philosophical assumptions outlined in the position statement, b) recognize graduate level training as desirable for those working with young children with learning and developmental needs, and c) be outcome-based, rather than course-based, to ensure that personnel possess specified skills. The statement goes on to describe the steps and responsibilities associated with the credentialing process, asserting that it is the responsibility of state licensing/certifying agencies to develop the standards. The standards should apply to the birth-to-8 age range, and specify core knowledge and skills for general and special education professionals.

NAEYC has developed guidelines to assist in the development of training programs in early childhood fields. The guidelines describe the common core of knowledge, performances, and dispositions that are desired outcomes of preparation programs for all early childhood professionals. Also included in the guidelines are the standards for licensure/certification in early childhood special education and early childhood generalist education.

#### **Consultation and Collaboration**

Early childhood special educators have traditionally been employed in direct intervention (Gallagher, 1997). With the growing emphasis on inclusion, however,

comes a shift to indirect service delivery for these teachers. Buysse et al. (1999) contend that early childhood special education training should include training in consultation and developmentally appropriate practice.

Gallagher (1997) studied challenges and successes of early childhood special educators in consulting roles. She found that initially these teachers felt much more comfortable in direct intervention, but over time, their skill and confidence as consultants grew. Participants admitted that their time in self-contained special education classrooms skewed their ideas about what children with disabilities are and are not able to do, but exposure to typically developing children alongside children with disabilities increased their estimation of the latter's abilities. The most prominent challenges reported to participants, as consultants, were how parents of the nondisabled might react to the inclusive setting and challenges related to working with teachers who did not want consultants in their classrooms. The primary concern of participants was logistics – documentation and paperwork, scheduling and making telephone calls, lack of office space, and travel. This concern translated into a need for staff support, such as secretarial help, peer support including time to collaborate with supervisors and fellow consultants, and training for parents and teachers. All participants had some success stories related to their work as consultants, including seeing progress in individual children, bringing preschools together as a community, their own abilities as public relations experts with other community agencies, and their role as a resource on referral, eligibility, and behavior management.

Palsha and Wesley (1998) endorse consultation as a viable option for providing early childhood educators with knowledge, skills and support. One benefit of using

consultation is that the critical need for new ideas and skills that blend special education practices with early childhood practices could be met. Early intervention and early childhood special educators acting as consultants can pair with consultees to assess programs needs, assist with modifications and intervention planning, and provide on-site follow-up related to the identified needs. According to these authors, visits should occur anywhere from weekly to monthly and from 60 minutes to half-a-day depending on the needs of the program.

### Preservice and Inservice

“IDEA requires each state to develop a comprehensive system of personnel development (CSPD) that addresses both preservice and inservice training needs of people who serve [preschoolers with disabilities]” (Sexton, Snyder, Wolfe, & Lobman, 1996, p. 485). This system should be based on competencies, which can be used in the evaluation of competence and training needs (Gallagher & Gabrielson, 1999).

Gallagher and Gabrielson (1999) examined Georgia’s CSPD plan as a possible model for other states. Georgia’s plan presents professional competencies in behavioral terms, which evaluators use as a basis for determining an individual’s fitness to practice. Components of the plan include preservice, inservice, parent education, and technical assistance. Training is provided by several universities who have partnered with the state. Core areas of competence are child development, family systems, assessment and evaluation, team processes, and program evaluation and implementation. Behavioral indicators were validated and revised over approximately one year and have been used successfully by trainers and trainees for self-evaluation, goal setting for further learning, and planning professional development activities.

Inservice training has been criticized as being ineffective (Sexton et al., 1996).

One criticism of inservice is that it appears to have no clear purpose or definition.

Descriptions of the purpose of "inservice" include (a) to improve professional practice, (b) to offer a systematic effort to change student behavior by changing teacher behavior, and (c) to teach people to generalize the skills they have learned to the workplace setting (Winton, 1990). The "crisis mentality" resulting from an immediate and constant demand for trained early childhood educators is another factor in the perception of inservice as ineffective. To deal with the "crisis," an overreliance of didactic inservice training often takes place, with little follow up. This lack of follow-up is a component of the third criticism of this method of training, namely that there has been little research on the application of inservice training to actual practice.

Sexton et al. (1996) studied inservice training formats and methods. They concluded that the most effective methods are those that include observation and practice on the part of the trainee, as well as audio and video feedback. Teachers agreed that strategies emphasizing practical skills and the opportunity to see and practice the skills being learned were the most effective ways for them to learn. Sexton and colleagues (1996) also found that active participation of trainees is required in only about one-fifth of inservice training formats. The implication of these findings for trainers is that traditional, didactic, passive methods should be supplemented with interactive activities, such as role play, and must include follow-up and feedback.

## Practices

### Best Practice

Developmentally appropriate practice has long been the preferred method of "instruction" in early childhood. Developmentally appropriate practice is based on the theories of Piaget and Vygotsky. The underlying tenets of developmentally appropriate practices include that (a) learning should occur through exploratory play, (b) formal academic instruction should be avoided, (c) teachers should not apply a tight structure to learning activities, and above all, (d) emphasis should be placed on child-initiated, child-centered activities (NAEYC, 1996). There are three primary guidelines with regard to developmentally appropriate practices - 1) age appropriateness - development occurs in a universal and predictable sequence, 2) individual appropriateness - development entails a unique pattern of strengths, weaknesses, interests, experiences and backgrounds, and 3) cultural appropriateness - development should be considered in the social and cultural context in which a child lives (Udell, et al., 1998).

In the mid-1970's, early childhood special education was borne of education legislation pledging public support for services to preschool children with disabilities. Supporting this legislation is the assertion that "early and comprehensive intervention maximizes the developmental potential of infants and children with disabilities" (Udell et al., 1998). Best practice in early childhood special education emphasizes a family-centered focus, specific measurable functional goals, frequent monitoring of interventions, advanced transition planning, and multidisciplinary services (Udell et al., 1998).

In the past, some discrepancy has existed between developmentally appropriate practice and early childhood special education practice. In recent years, however, proponents of each side have begun to recognize the common elements and the contributions of both practices. A major area of discordance has been that early childhood special education practices are more structured than developmentally appropriate practices. Debate has also centered on the appropriateness of developmentally appropriate practices, which emphasize child-directed rather than adult-directed activities, in the provision of services to young children with disabilities. NAEYC (1997) supports learning through exploratory play rather than through formal instruction because the latter often results in nonfunctional learning. Udell et al. (1998) contend that while the two practices are different, they are compatible.

The conceptual framework for the ideal inclusive early childhood program involves both developmentally appropriate practice and early childhood special education practice (Udell et al., 1998). Developmentally appropriate practice and early childhood special education practice combined offer an age-appropriate environment in which all children are stimulated and all children's needs are supported, coupled with programming that emphasizes individual strategies to maximize learning for children with specific developmental needs combines both.

Udell et al. (1998) discuss essentials of best combined practice. As established, developmentally appropriate practice was not designed to address the needs of children with disabilities, but activities and equipment are developed to accommodate children at various developmental levels and can serve as a solid foundation for the basic inclusive program. Early childhood special education practices should be used as a supplement



emphasizing individualized intervention when needed. Components of the program should include functional skills that will assist children in interacting independently within the physical and social environment, a good family-school relationship that encourages parent participation in planning and decision-making, regular monitoring of special interventions to assess progress toward individual goals, multidisciplinary planning and implementation of services, and early transition planning involving family, sending teacher and staff, and receiving teacher. Further, in setting child-focused goals, objectives should be functional (i.e., useful and meaningful to the child, and promote skill acquisition, generalization and maintenance) and developmentally appropriate (Hammer, 2000). Inappropriate goals result from inappropriate assessment, so assessment should involve a variety of methods, from norm-referenced to curriculum-based and observations to parent reports.

Jones and Rapport (1997) describe specific strategies for teachers in inclusive settings. Communication is important on many fronts, for example, regular, open conversations with parents and related service personnel keep involved parties informed. Approaching children at eye level demonstrates communication with the child, not to the child. The physical arrangement of the room should include designated areas for specific activities and materials and should promote interaction between children. Children should be allowed ample opportunity to interact and should receive positive feedback for social interaction. Small groups often facilitate interaction, so children with a broad range of ability levels should be grouped together. Seating should be comfortable and should promote good posture and fine motor skills. Ideally instruction will be activity-

based, emphasizing play and discovery, with developmentally appropriate curricular materials that can be easily adapted to each child's developmental level.

### Actual Practice

Bruder et al. (1997) studied early intervention practices in child development settings. Children were referred to the regional service coordination center, evaluated, had Individual Family Service Plans (IFSP) developed, and were then referred on to state agencies or private programs offering early intervention services. Interviews, observations and formal assessments were conducted at 3-month intervals over one year. The ITERS and a log for recording activities in 10-minute intervals were used in the classrooms. Families were interviewed to collect background and demographic information. Program personnel were interviewed to gather information regarding the childcare environment, service characteristics, and child development measures. Since family involvement is meant to be an integral part of service, each child's IFSP was reviewed to compare the number of child outcomes listed with the number of family outcomes listed. The authors found that the majority of plans contained only child-related outcomes – only 13% had at least one family outcome. The outcome analysis is disheartening because it clearly indicates that services are being designed around children needs to the exclusion of the family's needs, contrary to federal law. In order to remedy this situation, Bruder et al. (1997) recommend a process that allows families to identify changes they would like for themselves and their children and for planning to be based on the family's goals. Also of concern was the narrow range of services, which primarily fell under the traditional special education model, as opposed to an early intervention model.

## Major Conclusions and Research Questions

There appear to be at least three major concerns that stem from the literature review. Best practice in early childhood has been clearly articulated in NAEYC's developmentally appropriate practice (DAP). Although early childhood special education is more individualized than DAP, the two can be successfully merged to create optimum programming for young children with special needs. To what degree actual practice conforms to best practice is yet to be determined. It is apparent that there has been little or no discussion with regard to preschool setting. Children are educated in public, private and church-affiliated programs, so it is important to compare different settings in order to identify the strengths and weaknesses each has to offer. Although teacher training has been studied in depth, and successful training methods have been identified, the literature suggests that there is little uniformity in the training of preschool educators. With the widespread incorporation of inclusion at the preschool level, an understanding of the effects of teacher education on services to children with and without disabilities is vital.

The overall goals of the present study were to identify actual practices and their relationship to research-based best practices; to compare practices in different types of inclusive early childhood settings (i.e., private, public and church-affiliated); to determine preservice, inservice, and other training and support needs of early childhood education staff in those settings; and to provide the Division of Special Education in Indiana with information that could be used for early childhood special education planning and programming across the state. The following research areas and specific questions were addressed:

1. **What differences exist between best/recommended early childhood special education practice and actual early childhood special education practice?**
  - 1.1 **What differences exist between best/recommended practice and actual practice in different types of settings?**
  - 1.2 **What differences exist between best/recommended practice and actual practice in different school districts?**
2. **What differences exist between early childhood special education practices in different types of inclusive early childhood settings?**
  - 2.1 **What differences exist between perceived most common disability based on the type of setting?**
  - 2.2 **What differences exist between the total number of children receiving special education services based on the type of setting?**
  - 2.3 **What differences exist between other instructional variables based on the type of setting?**
  - 2.4 **What differences exist between attempts at family involvement in other important activities based on type of setting?**
3. **Do the education levels of early childhood teachers and early childhood special education teachers in inclusive early childhood settings appear to have an effect on the types of service provided to children with disabilities in those settings?**
  - 3.1 **What is the relationship between teacher education level and type of setting? What differences exist in teacher education level across settings?**

- 3.2 What is the relationship between teacher education level and school district?**
- 3.3 What is the relationship between teacher education level and other instructional variables?**

## Chapter 2

### METHODS

#### Participants

Participants were preschool and early childhood program directors/lead teachers from school districts throughout the state of Indiana. One hundred sixty-six directors/lead teachers were randomly selected from lists provided by early childhood coordinators of the 82 school districts Indiana. Fifty-eight completed surveys were returned. Criteria for including participants in the study were that their program (a) provide services for children with and without disabilities and (b) is in some way affiliated with the local special education district.

Prior to implementation of the study, the researcher received approval from the School of Education's committee on research with human subjects.

#### Instruments

Participants were surveyed using an instrument designed by the researcher (see Appendix A). The survey, a rating scale, contains 16 items. These items addressed a range of professional practices including (a) services available to teachers and to students with special needs, (b) strategies used in working with students with special needs, (c)

attempts at family involvement in the provision of services, (d) multidisciplinary collaboration, and e) the availability and use of professional development for teachers and staff, related to serving children with special needs. Items were derived from an U.S. Department of Education Office of Special Education survey designed for the Study of State and Local Implementation and Impact of the Individuals with Disabilities Education Act. Items on the survey were adapted to meet the data collection needs of the present study. Some of the items on the survey were grouped into seven distinct scales. The scales addressed areas pertinent to best practice including Attempts at Family Involvement, Regular Contact with Families, Multidisciplinary Collaboration, Assessment, Goal Setting, Supports to Parents and Supports to Teachers.

A pilot study was conducted to assess the reliability of these scales. A subsample of respondents was used in these preliminary reliability analyses. The reliability results were as follows: Supports to Families,  $n = 28$ ,  $\alpha = .40$ , item-total score correlation (ITS  $r$ ) range = .651-.705; Multidisciplinary Collaboration,  $n = 27$ ,  $\alpha = .91$ , ITS  $r = .704$ -.852; Supports to Teachers,  $n = 24$ ,  $\alpha = .78$ , ITS  $r = .563$ -.779; Goal Setting,  $n = 29$ ,  $\alpha = .73$ , ITS  $r = .656$ -.727; Regular Contact with Families,  $n = 30$ ,  $\alpha = .85$ , ITS  $r = .860$ -.904; Attempts at Family Involvement,  $n = 29$ ,  $\alpha = .71$ , ITS  $r = .593$ -.810; Assessment,  $n = 30$ ,  $\alpha = .66$ , ITS  $r = .599$ -.777.

### Procedure

The researcher made preliminary contact with the Educational Consultant for early childhood education at the Division of Special Education to ensure that the Division had knowledge of this project. Indiana special education early childhood coordinators for

each district in Indiana, whose names were obtained from the Division of Special Education, were contacted by telephone to request their assistance in collecting data for this project. Participants were surveyed individually by mail. Surveys were posted to the participants along with a return-addressed, postage-paid envelope for easy return of materials. A cover letter was included with the survey informing participants of the purpose of the study, that the survey was anonymous and confidential, that participation was voluntary and that they may choose not to participate up to the point that completed surveys were opened. The cover letter also mentioned, as an inducement to complete the survey, that there would be two \$ 50.00 cash prizes randomly picked from the pool of participants once all surveys had been returned. The cover letter further stated that by completing the survey participants were agreeing to take part in the project and that they understood their rights and responsibilities as related to participation. Contact information was provided in the event that the participant had any questions. Demographic information was obtained from all participants at the time the survey was administered.

A sub-sample of initial nonrespondents (i.e., a portion of those who did not return the materials by approximately two months from receipt of the initial survey) were mailed a second copy of the survey. These participants were given two options (a) a time extension to return the survey by mail, or (b) not to participate. Following the collection of all data the cash prizes were awarded.



## Data Transformations and Analyses

Preliminary internal consistency analyses (i.e., Cronbach's alpha) were conducted using the total score for each of the seven identified scales to establish a minimum level of psychometric adequacy. In addition, item-total score correlations were run to assess the adequacy of items. Any scale that did not possess internal consistency (i.e., .60 Cronbach's alpha) and/or had more than half of its items with substandard item-total score correlations was considered psychometrically inadequate, and these poor items were examined on an individual basis rather than using a scale's total score.

During data analyses certain variables were combined to achieve matched sampling in the participant group. Originally, the category of "center type" consisted of Public, Private and Church-affiliated schools. As a result of very few returned surveys from the Church-affiliated schools, and a much larger return from the Public schools than either of the other two school groups, the Church-affiliated and Private school groups were combined. Subsequent use of the term Private pertains to the combined Private/Church-affiliated schools group. In spite of combining these groups, returns from Public schools outnumbered returns of the Private schools group. In consultation with a statistician, the researcher was encouraged to select a subsample from the Public group in order to achieve a matched sample with the Private group. Statistical software was used to randomly select this subsample from the Public group.

The geographical location category was originally conceived having rural, suburban and urban groups. Again, due to fewer returns from the suburban and urban group than the rural group, two of the groups were combined. The urban and suburban

groups were collapsed into what will subsequently be known as the metropolitan (metro) group, in order to achieve a more matched sample.

Data were analyzed using several statistics. For questions using frequencies as the metric of analysis, non-parametric procedures (e.g., chi-square) were used. For analyses with a continuous variable as the metric, inferential statistics (e.g., t test, analysis of variance) were used with appropriate post hoc tests. Pearson correlation coefficients were used for analyses examining the relationship between two variables. Finally, multiple regression analyses were used to determine whether particular variables were predictors of certain outcomes.

## Chapter 3

### RESULTS

#### Relationship to Best Practice

Research area # 1 examined questions pertaining to the relationship between actual practice and best practice. The first question (1.1) investigated differences between center type (public vs. private) with regard to best practice. Independent t-tests were used to examine these differences on the Best Practice Scales. As shown in Table 2, two of the seven scales of practice yielded statistically significant results. The private schools mean scores for both Supports to Parents and Multidisciplinary Collaboration were greater than those of the public schools. Based on these results, private schools have a reported higher level of support to families, in terms of providing additional services such as transportation to meetings and childcare during meetings. Private schools also appear to engage in more staff collaboration among colleagues.

Question 1.2 examined differences between geographic location (rural vs. metropolitan) and relationship to best practice. Geographical location data were also analyzed using independent t-tests. Scores presented in Table 3 indicate that the Metropolitan (Metro) group reported a higher level of supports to families as well as more attempts at family involvement in determining and developing programming.

In terms of relative proximity to the upper and lower limits of the Best Practice Scales, schools overall scored closer to the upper limits of the scales than the lower

limits, with the exception of the Supports to Families scale. Table 4 shows the range of scores for each scale.

### Practices by Center Type

Research question 2.1 examined the most commonly perceived disability by center type. The original four categories of disability were collapsed into two categories because Orthopedic Impairment received no endorsements, and Other yielded two endorsements of "autism," which, according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (1994; DSM-IV), is considered a developmental disability. Table 5 lists frequencies of the disabilities by center type. Chi-square analysis,  $\chi=6.27(1)$ ,  $p<.05$ , indicated that private schools serve significantly fewer children with developmental delays than children with speech/language impairment in either setting, and significantly fewer children with developmental delays than served the public schools.

Research question 2.2 investigated the financial resources of families by center type. Data used represented the category of available resources that respondents recorded as occurring most frequently at their school. As presented in Table 6, a chi-square analysis,  $\chi=0.61(2)$  suggests no statistically significant difference in family financial resources between families whose children are served in public schools and those served in private schools.

Research question 2.3 considered Other Important Variables, including percentage of students served and teacher/student ratios, by type of center. Data were subjected to a series of independent t-tests. Table 7 shows mean scores and t-values for

each of the five variables that were examined. Based on these scores, public schools have a significantly higher percentage of children receiving special education services than private schools. However, as indicated by the standard deviation, a great deal of variability exists among the private schools in terms of percentage of children enrolled in special education. Analyses of ratios of teachers and teacher's aides to the total number of enrolled students and the total number of students receiving special education revealed comparable ratios between the public school and private school groups.

### Teacher Education Levels

Research area # 3 examined the relationship between teacher education levels and center type, geographic service location, and best practice. Questions 3.1 and 3.2 pertained to center type and geographical location, with Table 8 listing frequencies for each group. Chi-square analysis for center type,  $\chi=15.61(2)$ ,  $p<.05$ , indicates a significant relationship between teacher education level and center type. Bachelor's level education appears to be more comparable across center types; however, there are far more teachers with only high school or associate's degree level training in the public schools than in the private schools. There are also many more graduate degree level teachers in the public schools than in the private schools. Chi square analysis for geographical location,  $\chi=0.21(2)$ , indicates no significant relationship between teacher education level and geographical location.

Question 3.3 evaluated the relationship of teacher education level and best practice. Two steps were taken to address this question. First, a biserial correlation assessed the relationship between each of the Best Practice Scales and the "at least one"

variable. In addition, biserial correlations examined relationships between the Best Practice Scales and the “more than one” variable. Results are found in Table 9. One significant relationship was identified between the assessment scale and schools employing more than one bachelor’s degree level teacher,  $r = -0.29$ ,  $p < .05$ .

Second, to determine which, if any, factors, particularly teacher education level, were correlated with or predictors of best practice a stepwise multiple regression was conducted. The model included the Best Practice Scales as the dependent variable and the ratios of student-to-teacher, regular education student-to-special education student, teachers per classroom, and “more than one graduate level teacher” as independent variables. As shown in Table 10, employing more than one graduate level teacher was a significant predictor of multidisciplinary collaboration, regular contact with families, attempts at family involvement in the special education process, and assessment. The number of regular education students to special education students was also a predictor of regular contact with families, and the number of teachers per classroom was a predictor of closer adherence to best practice as it pertains to assessment.

## Chapter 4

### DISCUSSION

Results of this study extend prior knowledge about early childhood special education by providing comparative information about actual practice in different types of centers and geographical locales, as well as about teacher training. Previous research cited in the literature review did not examine adherence to specifically cited areas of best practice or look at teacher education across settings. This study also addresses early childhood special education in Indiana, specifically.

The present study suggests that certain areas of best practice are followed more closely by private schools than public schools, and by schools in metropolitan areas than those in rural areas. This study also provides evidence that the public schools serve far more early childhood students with special needs than the private schools. Public schools were also found to have wider use of teachers at all levels of education than private schools. These findings are important because they provide clues to the characteristics that make actual ECSE programs ideal programs. However, before discussing results and implications, it is important to note the study's constraints.

## Limitations

The study had at least five limitations. First, a mail-out survey format was used, and this method is known to yield fewer responses than other methods, such as a face-to-face interview or a survey administered in the presence of a "proctor." A larger number of responses may have been received if one of these other data collection methods was used. Additionally, a combination of a survey and qualitative observations may have provided data more useful for programming and planning of services and more helpful in identifying teacher training needs.

Second, the use of a "self-report"-type measure introduced the inherent risk that the respondents would seek to portray their programs and to report practices in a more positive or more favorable light. Thus, results should be interpreted relative to the demographics of this study's sample.

A third limitation is that the participants, primarily early childhood center directors, may not have an active role in the early childhood special education in their schools (i.e., lead teachers or itinerant consultants may be responsible for the operation of the inclusive programming). Consequently, participants may not have been able to access the information requested in the survey, and this may be a contributing factor in the small number of responses.

A fourth factor limiting the study was surveying only those programs specifically cited by state and district early childhood special education coordinators as providing services to children with special needs. By focusing on this group alone, comparisons between the characteristics of inclusive programs and those of non-inclusive programs could not be made.



Finally, the less than ideal reliability of the Support to Families scale demands that any conclusions drawn, based on this scale, should be interpreted cautiously. It is likely that the fact that this scale had only two items partially explains the low reliability obtained during preliminary analyses.

These limitations notwithstanding, several important and interesting findings emerged.

### **Research Question # 1: Best Practice**

The present data suggest that private schools offering inclusive early childhood special education have a higher reported level of support to families than public schools offering similar special education services. It is possible that the organizational structure and size of the private schools permits additional supports, such as transportation to and from meetings at schools, to be offered. Public school early childhood classrooms tend to be housed in elementary schools with a centralized support/secretarial staff whose responsibility is to serve the entire school. Conversely, private early childhood classrooms tend to stand-alone or to be housed in small centers, with support staff available exclusively for early childhood matters, with more time to arrange for additional support to families.

Private schools also reported more multidisciplinary collaboration between teachers and other related services professionals. In the public schools, special education staff, as well as those from related services disciplines, are most likely assigned to specific schools, allowing for more frequent interaction between teachers and related services educators. Private schools, on the other hand, most likely have few, if any, of

these educators on staff and are only visited by them during service to specific children or pre-arranged consultative and collaborative meetings. Public school teachers may have reported a lower level of multidisciplinary collaboration because they see ECSE service providers as school-based colleagues rather than as visiting consultants.

Additionally, private school staff may be more apt to seek out formal multidisciplinary collaboration because they do not have special education staff in-house or have easy access to the more informal interactions that often take place in the public schools.

When adherence to best practice was examined with regard to differences between geographical locations, the metropolitan group reported more support to families and more use of strategies to increase family involvement than the rural group. These findings may be the result of the nature of metropolitan versus rural regions. First, differences may have been influenced by the responses of affluent metropolitan schools, which have the financial resources to provide additional supports. Second, metropolitan areas are more compact, with schools serving a smaller geographic area. Consequently, schools may be much closer to students' homes, thereby making it easier to provide transportation to parents. Additionally, it may be easier for families in the metropolitan area to interact with schools simply because of the public transportation system. The US Department of Labor (USDOL) points out in its recent report that "people with disabilities who live in rural regions face very different transportation challenges than do those who live in large metropolitan areas" (2000, USDOL). Third, metropolitan schools may offer additional supports because family involvement in inner city "at-risk" populations tends to be low, and making it as easy as possible for families to be involved increases the likelihood that families will participate in the special education process.

Fourth, urban schools may need to make more attempts and try a wider range of strategies to involve families because of characteristics of many inner city communities, such as lack of telephones in the home, illiteracy, homelessness, and transience. Finally, it may be that rural schools accommodate parents in a manner that does not require the provision of additional supports, such as by allowing parents to bring children to meetings with them.

The metropolitan group includes schools in suburban locales. Suburban areas are perceived to be the settling place of middle and upper middle class families, more than rural areas. There may be more financial resources in the suburban communities and schools to allow for the provision of additional supports to parents. Also, suburban families, perhaps with higher socioeconomic status and a higher level of education, may place more of a priority on education and be more active in their own children's schooling. This action may take the form of taking advantage of the additional supports offered by the schools and/or taking a more active role in the special education process. It must be noted that it is difficult to draw definitive conclusions on the metropolitan group because of the characteristic differences between the urban and suburban groups.

Despite the differences identified in this study, public and private schools offering ECSE were comparable on the Best Practice Scales measuring supports to teachers, goal setting, regular contact with families, attempts at family involvement and assessment. Rural and metropolitan schools were comparable in terms of multidisciplinary collaboration, supports to teachers, goal setting, regular contact with families and assessment.

### Possible Implications for Practice

Three major implications were identified during the examination of this question. First, if resources permit, public schools that house ECSE classrooms should consider assigning support staff to be solely, or at least primarily, responsible for ESCE program support. Assigning staff with few obligations to the school at-large, will allow ECSE support staff to assist in making “supports to families” a reality in the public schools. Second, it is difficult to say whether public schools truly have lower rates of multidisciplinary collaboration or whether teachers in public schools perceive collaboration differently than their private school counterparts. Consequently, this is an area in which further study is warranted. Encouraging public schools teachers to record informal collaborative efforts as well as more formal meetings would assist in providing more accurate data about multidisciplinary collaboration. Finally, if rural schools are unable to provide additional supports to families, they can assist families by helping to make arrangements with outside agencies or by providing families with information regarding community resources.

### **Research Question # 2: Public vs. Private Centers**

Research question # 2 examined a variety of factors by center type. When examining the most commonly perceived disability, directors and lead teachers in private schools reported that they serve far fewer children with a developmental disability (DD) than with a speech and language impairment (SLI). The literature shows SLI to be a more common area for intervention among children in early childhood. In a national survey of early childhood teachers at NAEYC-accredited programs, McDonnell,

Brownell and Wolery (1997) found that more than half of the respondents taught a child with an SLI, compared to smaller percentages of teachers serving children with other disabilities. Private schools also reportedly serve far fewer children with DD than the public schools. Two possible reasons for this trend exist. Private schools may place limits on the type or severity of disability they serve because of staffing (i.e., a small staff or a staff that is not prepared to work with children with a more serious special education need.) Additionally, parents may be encouraged to place children with DD in a public school for easier transition from early childhood services to elementary school.

Though public and private schools are comparable in terms of student/teacher ratios, student/special educator ratios, and student/teacher aide ratios, public schools serve a higher percentage of children with special needs than private schools. There is, however, a great deal of variability among center types with regard to the percentage of children served. It may be that parents who would not otherwise have sent their children to preschool decide to send them once a disability is identified. Because it is the public school system that typically collects the assessment data used to determine a disability, these parents may take the seemingly natural step of placing their children in the public schools. This decision may be reached either without knowing that private school is an option, not wanting or being able to afford the additional expense, or because no alternative is available in their community. Public schools may discourage parents from pursuing early childhood special education in private schools in an attempt to maximize resources. The public school system can determine where services for private school students will be provided. They may opt to serve children in the public school setting so

that a number of children can be served simultaneously, rather than sending a specialist out to a private school to serve a single child.

#### Possible Implications for Practice

For many parents the special education process is a novel one. Public schools and/or the affiliated special education cooperatives should help parents understand their rights or options for service provision. Data such as those found in this study could be used to demonstrate areas in which a particular type of center excels with regard to best practice. The benefits of working with children in small groups versus one-on-one, both for the school system and especially for the children, should be made clear.

#### Research Question # 3: Teacher Education Level

The third research question addresses teacher education levels as related to type of center and to best practice. Private and public schools are comparable in terms of number of teachers on staff with bachelor's degree level training. Public schools, though, employ far more teachers with only high school or associate's degrees than private schools. This finding is surprising given state education regulations, which govern public schools, unless respondents included teacher assistants in their teacher count on the P-SPEDS. It may also be the case that training requirements in private schools are higher or more stringent because of family expectations about standards and service from private schools. Interestingly, public schools also report employing more teachers with graduate degrees than private schools. This finding is less surprising because education department standards strongly encourage pursuit of graduate education (Indiana Professional Standards Board). Private schools may not be held to the same requirements

or standards, particularly at the early childhood level, where a National Child Care Staffing study found huge variation in training standards across the country (Phillips, 1994).

Employing more than one graduate degree level teacher was found to be a predictor of adherence to best practice on four of the seven Best Practice Scales. Similar arguments could be made with reference to assessment as those stated above in the discussion of employing more than one bachelor's level teacher. Additionally, more seasoned graduate-level teachers have likely seen the value of ongoing assessment in planning and programming during their tenure in the classroom. Similarly, many graduate-level teachers are sufficiently experienced to understand the importance of maintaining regular family contact and using as many strategies as possible to facilitate family involvement. With regard to multidisciplinary collaboration, teacher's graduate training may have included involvement with professionals from other education-related disciplines. NAEYC (1994) personnel standards emphasize collaborative interprofessional action, Phillips (1994) stresses the necessity for early childhood educators to maintain productive relationships with multidisciplinary colleagues, and Buysse et al. (1999) stress that training content should include competencies related to consultative skills. Through educational experiences, graduate-level teachers may have learned the necessity of collaborating with fellow educators in order to serve children most appropriately and to achieve the best outcomes.

The number of teachers per classroom was identified as a predictor of adherence to best practice in assessment. At least two plausible explanations for this finding exist. First, multiple teachers per class may allow time for more in-depth and more ongoing

assessment in the classroom. Second, teachers may also have ample time to stay current on literature. An implication of this finding is that assigning more than a single teacher to a classroom enables best practice in assessment because it lowers the teacher/student ratio, thereby freeing time for teachers to conduct assessment and to stay up-to-date on professional literature.

A higher ratio of general education students to special education students was found to predict adherence to best practice related to regular contact with parents. Fewer special needs students in class may allow more time for teachers to maintain regular or frequent contact with parents. The fewer special education students in the class, the fewer students teachers have that require continuous monitoring of progress and reporting back to parents. Naturally teachers should maintain regular contact with families of general education student also, but their obligation to do so with families of ECSE students is in some cases a matter of law.

#### Possible Implications for Practice

Broadly stated, having more than one undergraduate or graduate level teacher per classroom, as well as a lower number of special education students in relation to general education students, appears to boost adherence to best practice across recognized dimensions of practice. Given this finding, ideally, schools and centers providing ECSE should ensure that their classrooms are staffed by multiple teachers. Further, this finding would suggest that school administration need to use caution when determining the number of children with disabilities to assign to a classroom. The reality might be that schools may not have the financial resources or personnel available to meet this ideal. If this is the case, perhaps the message should be heeded at the state level.



### Future Research Directions

Future research in this area could take a variety of paths. Findings from studies such as this one could be useful to state departments of education in terms of providing data to support and guide policy-making and professional standards in ECSE. This particular study could be replicated in other states, with attempts to control for some of the limiting factors. Specifically, a larger sample size may turn up more definite patterns in quality of service by center type, geographical location and/or teacher education level, and may also allow for the original categorization (e.g., rural, urban and suburban as opposed to rural and metropolitan) to be maintained. Also, with a large enough sample size, differentiation between partial-day preschool and full-day/extended care sites could be made with an adequate number of participants in each subgroup.

Research comparing programs offering different types of service delivery, such as inclusive, self-contained and pull-out, would be useful in determining which model appears best suited to meeting best practice guidelines. A comparison of the characteristics of service delivery models rather than focusing on a single model, as the present study did, may also yield interesting results.

Qualitative research, including observational data on ECSE services, would be useful in providing additional support for survey findings, as well as in addressing some limitations inherent in survey research. Observations and records reviews conducted by members of a research team would allow for an objective account of how well centers and schools are adhering to best practice in ECSE.

Additional items could be created for those scales with few items on the original version of the P-SPEDS. In particular, the Support to Families scale, which had only two

items and was of questionable reliability, would benefit from expansion. Possible additional items to this scale might include, "holding meetings at times convenient to parents."

### Conclusion

It is apparent from this study that inconsistency in adherence to best practice and disparity in teacher education levels between and within center types and geographical locations are key issues linked to early childhood special education. It is important that educators and policymakers take notice of the fact that schools are not adhering to best practice as closely as desired, either because they lack the resources, are unaware of the standards or for other reasons. This study was undertaken because of a void in the literature. This area of research is in the early rather than mature stages, but it is important that researchers continue with this line of enquiry so as to better guide the development of policies to ensure high quality training, practice, and services to young children and their families.

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Table 1

**Advantages of Settings that Follow NAEYC Guidelines**

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1. "The range of activities following NAEYC guidelines is broader and more varied than didactic, academically oriented classes, [which] means that it is easier to ensure than children with disabilities can participate meaningfully in the activities of other children and of the class as a whole."
2. "The NAEYC guidelines advocate promoting children's engagement in activities . . . interacting appropriately and adaptively with materials and peers. . ."
3. "The NAEYC guidelines advocate for providing attention to individual children's needs. The curriculum and activities are designed to accommodate children with a range of abilities and interests."
4. "Classes following the NAEYC guidelines allow multiple types of interactions to occur between adults and children . . ."
5. "In classes following the NAEYC guidelines, child-child interactions are frequent . . . [allowing] children with disabilities to acquire and use social play as well as social interactive and conversational skills with other children who often have more competence in these areas."
6. "The NAEYC guidelines call for integrated learning activities specifically addressing children's cognitive, physical, and social goals within single activities rather than separate activities for each type of goal. . . Children's abilities in each area are addressed in functional ways than should promote skill generalization."

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**Note. Information from Wolery and McWilliam, 1998.**

Table 2

**Descriptive Statistics and t-Values on Best Practice Scales by Center Type**

Best Practice Scales	<u>Public (n=19)</u>		<u>Private (n=19)</u>		<u>T (df=36)</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Supports to parents (10)	4.05	1.93	5.58	2.14	-2.31*
Multidisciplinary collaboration (35)	23.74	4.91	27.32	5.37	-2.15*
Supports to teachers (30)	19.74	6.62	20.84	5.77	-0.55
Goal setting (15)	13.05	1.61	12.74	2.16	0.51
Regular contact with families (15)	11.26	1.94	11.47	2.67	-0.28
Attempts at family involvement (20)	13.21	3.31	13.74	3.19	-0.50
Assessment (20)	16.00	2.62	15.58	3.06	0.46

**Note.** Ratings were made on 5-point scales (1 = Never, 5 = Always) with higher scores, denoting reportedly more congruence to best practice. The number following the name of a scale denotes the highest possible score on that scale.

\* $p < .05$ .



Table 3

**Descriptive Statistics and t-Values on Best Practice Scales by Geographic Location**

Elements of Best Practice Scales	<u>Rural (n=30)</u>		<u>Metro (n=28)</u>		<u>T (df=56)</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Supports to parents (10)	4.17	1.74	5.36	2.16	-2.31*
Multidisciplinary collaboration (35)	25.67	6.16	25.50	5.32	0.11
Supports to teachers (30)	19.33	6.12	19.61	5.93	-0.17
Goal setting (15)	13.20	1.79	12.93	1.96	0.55
Regular contact with families (15)	10.80	2.57	11.68	2.31	-1.37
Attempts at family involvement (20)	11.87	4.34	14.07	2.71	-2.30*
Assessment (20)	16.27	2.84	15.36	2.95	1.19

**Note.** Ratings were made on 5-point scales (1 = Never, 5 = Always) with higher scores, denoting reportedly more congruence to best practice. The number following the name of a scale denotes the highest possible score on that scale.

\* $p < .05$ .

Table 4

**Range of Scores on the Best Practice Scales**

<b>Best Practice Scale</b>	<b><u>Lowest</u></b>	<b><u>Highest</u></b>	<b><u>Range</u></b>
Supports to parents (10)	2	10	8
Multidisciplinary collaboration (35)	10	35	25
Supports to teachers (30)	3	30	27
Goal setting (15)	9	15	6
Regular contact with families (15)	3	15	12
Attempts at family involvement (20)	2	20	20
Assessment (20)	9	20	11

**Note.** Scores are based on a 5-point scale. The number following the name of a scale denotes the highest possible score on that scale.

Table 5

**Frequencies for Disabilities by Center Type**

<b>Disability</b>	<b><u>Public</u></b>	<b><u>Private</u></b>
<b>Speech/Language Impairment</b>	<b>10</b>	<b>17</b>
<b>Developmental Delay</b>	<b>9</b>	<b>2</b>

Table 6

**Frequencies for Family Financial Resources by Center Type**

<b>Financial Resources</b>	<b><u>Public</u></b>	<b><u>Private</u></b>
Less than adequate resources	7	5
Adequate resources	11	10
More than adequate resources	1	2

**Note.**  $df = 2$ ; Chi square = 0.61. Data used for this analysis were based on the financial resources category that was endorsed for the majority of families served.

Table 7

**Differences in Other Important Variables by Center Type**

Variables	Public		Private		T (df)
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Percentage of children in SPED	72.82	26.26	39.20	35.80	3.05 (30)**
Ratio of teachers to total children	13.74	10.58	17.83	8.52	0.21 (35)
Ratio of teachers to SPED children	10.21	7.63	8.95	9.76	0.67 (34)
Ratio of aides to total children	13.57	8.90	21.39	16.35	0.84 (26)
Ratio of aides to SPED children	10.10	7.60	9.17	8.81	0.74 (34)

**Note.** "Other Important Variables" refers to information collected from the demographics page that accompanied the P-SPEDS. Number of teachers, number of teacher's aides, total number of children, and number of children receiving special education services fall under the heading Other Important Variables.

\*\* $p < .01$ .

Table 8

**Frequencies for Teacher Education Level by Center Type and Geographical Location**

<b>Education Level</b>	<b><u>Public</u></b>	<b><u>Private</u></b>	<b><u>Rural</u></b>	<b><u>Metro</u></b>
<b>High School/Associate's Degree</b>	<b>44</b>	<b>4</b>	<b>21</b>	<b>27</b>
<b>Bachelor's Degree</b>	<b>65</b>	<b>43</b>	<b>44</b>	<b>65</b>
<b>Graduate Degree</b>	<b>38</b>	<b>17</b>	<b>23</b>	<b>35</b>

Table 9

**Correlations for Teacher Education Level and Best Practice Scales**

Best Practice Scale	<u>HS/Associate's</u>		<u>Bachelor's</u>		<u>Graduate</u>	
	$\geq 1$	$> 1$	$\geq 1$	$> 1$	$\geq 1$	$> 1$
Supports to parents	-.04	-.07	.18	.21	-.17	-.17
Multidisciplinary collaboration	.21	.19	.07	.00	-.19	-.19
Supports to teachers	.17	.24	-.05	-.09	-.04	-.04
Goal setting	-.21	-.16	-.15	-.01	-.13	-.13
Regular contact with families	.13	.14	-.02	-.04	-.23	-.25
Attempts at family involvement	.12	.17	-.20	-.07	.03	.03
Assessment	-.17	-.29	-.24	-.29*	-.16	-.16

**Note:** "HS" is an abbreviation for High School. The symbol  $\geq 1$  indicates "at least one" and the symbol  $>$  indicates "more than one."

\* $p < .05$ .

Table 10

**Summary of Regression Analysis for Variables Predicting Best Practice**

Variable	<u>B</u>	<u>SE B</u>	Beta
<b>Multidisciplinary Collaboration</b>			
More than one graduate level teacher	-3.87	1.82	-0.28*
<b>Regular Contact with Families</b>			
<b>Step 1</b>			
More than on graduate level teacher	-2.615	0.705	-0.457*
<b>Step 2</b>			
More than one graduate level teacher	-2.542	0.683	-0.445*
Regular education students per SPED students	0.202	0.095	0.255*
<b>Attempts at Family Involvement</b>			
More than one graduate level teacher	-3.351	1.159	-0.372*
<b>Assessment</b>			
<b>Step 1</b>			
Teachers per classroom	-0.595	0.198	-0.384*
<b>Step 2</b>			
Teachers per classroom	-0.550	0.189	-0.356*
More than one graduate level teacher	-2.141	0.834	-0.314*

**Note.**  $R = 0.28$ ,  $R^2 = 0.08$  on Multidisciplinary Collaboration.  $R = 0.46$ ,  $R^2 = 0.21$  for Step 1 on Regular Contact;  $R = 0.52$ , Adjusted  $R^2 = 0.25$  for Step 2.  $R = 0.37$ ,  $R^2 = 0.14$  on Attempts at Family Involvement.  $R = 0.38$ ,  $R^2 = 0.15$  on Step 1 for Assessment;  $R = 0.49$ , Adjusted  $R^2 = 0.22$  for Step 2.

\* $p < .05$



**APPENDICES**

## Appendix A

## Survey

**Please provide input on**

# **PRESCHOOL SPECIAL EDUCATION**

Please think of your current students and staff when completing this survey. The survey has sixteen items and nine demographic questions. The survey should take 15-20 minutes to complete.

**In your opinion, what is the single largest disability group that you serve? Circle one response.**

- a. speech and language disorder
- b. developmental delay
- c. orthopedic impairment
- d. other, please specify \_\_\_\_\_

**For the following question, please fill in the blanks on the right side of the page giving your best estimate of the actual number of students in each case.**

Indicate how many students in your school/center use the following services. Students who use more than one service should be counted for each service they receive.

- |  |       |
|--|-------|
| a. Adaptive physical education                                   | _____ |
| b. Assistive technology services/device                          | _____ |
| c. Audiology/hearing services                                    | _____ |
| d. Communication services (e.g., sign language, Braille)         | _____ |
| e. Family training, counseling or similar support                | _____ |
| f. Full inclusion assistant/behavioral assistant/one-to-one aide | _____ |
| g. Nursing/health services                                       | _____ |
| h. Occupational or physical therapy                              | _____ |
| i. Psychological services  | _____ |
| j. Service coordination/case management                          | _____ |
| k. Social work services  | _____ |
| l. Speech or language therapy                                    | _____ |
| m. Tutoring  | _____ |
| n. Vision services   | _____ |
| o. Special transportation  | _____ |

**In your school/center, what percentage of currently enrolled students have an Individual Family Service Plan/Individual Education Plan addressing the following areas? If a student has more than one disability, use the primary disability.**

- |                                  |       |
|----------------------------------|-------|
| a. Specific learning disability  | _____ |
| b. Speech or language impairment | _____ |
| c. Mental retardation            | _____ |
| d. Emotional disturbance         | _____ |
| e. Hearing impairment            | _____ |
| f. Orthopedic impairment         | _____ |
| g. Other health impairment       | _____ |
| h. Visual impairment             | _____ |
| i. Autism                        | _____ |
| j. Deaf-blindness                | _____ |
| k. Traumatic brain injury        | _____ |
| l. Developmental delay           | _____ |

How many teachers do you employ? \_\_\_\_\_

How many of your teachers are certified by the National Association for the Education of Young Children? \_\_\_\_\_

How many of your teachers serve preschool children with disabilities? \_\_\_\_\_

Please indicate, in the blank space, the number of teachers at each level of education. Indicate only the highest education level for each teacher (e.g., if a teacher has a bachelor's degree and a master's degree, count them only at the master's level).

How many of your teachers that serve preschool children with disabilities:

- a. Have less than a high school diploma? \_\_\_\_\_
- b. Have a high school diploma, but no additional formal education \_\_\_\_\_
- c. Have an associate's degree, but not a bachelor's degree? \_\_\_\_\_
- d. Have a bachelor's degree in early childhood education? \_\_\_\_\_
- e. Have a bachelor's degree in special education? \_\_\_\_\_
- f. Have a bachelor's degree in another subject area? \_\_\_\_\_
- g. Have a graduate degree in early childhood education? \_\_\_\_\_
- h. Have a graduate degree in special education? \_\_\_\_\_
- i. Have a graduate degree in another subject area? \_\_\_\_\_

How many of your teachers that serve preschool children with disabilities have formal preservice or inservice training in teaching students with disabilities? \_\_\_\_\_

How many parents/guardians of students with disabilities actively participate in the following by asking questions and volunteering information? Please provide an estimate of the number of parents/guardians for each case.

- a. Discussions and decisions about evaluation \_\_\_\_\_
- b. Eligibility determination meeting \_\_\_\_\_
- c. Student placement decision \_\_\_\_\_
- d. Transition planning meeting \_\_\_\_\_
- e. Development of functional behavior plan \_\_\_\_\_
- f. Expulsion procedure \_\_\_\_\_

**Please respond to the following questions by circling the number that best corresponds to the frequency that you believe most accurately represents your school/center. Use the following scale to determine your responses:**

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

**In your school/center, do you provide transportation, childcare or other services to help parents/guardians attend IFSP/IEP meetings?**

**a. Childcare during meetings**

1	2	3	4	5
---	---	---	---	---

**b. Transportation for parents/guardians with limited access**

1	2	3	4	5
---	---	---	---	---

**c. Other, please specify \_\_\_\_\_**

1	2	3	4	5
---	---	---	---	---

**In your school/center, to what extent do the early childhood teachers collaborate with other educators or specialists to support students with disabilities?**

**a. Consultation by special education teachers**

1	2	3	4	5
---	---	---	---	---

**b. Consultation by related services staff (i.e., school psychologist, early intervention specialist)**

1	2	3	4	5
---	---	---	---	---

**c. Consultation concerning behavior management**

1	2	3	4	5
---	---	---	---	---

**d. Consult on curricular modification and adaptation**

1	2	3	4	5
---	---	---	---	---

**e. Consult on instructional modification and adaptation**

1	2	3	4	5
---	---	---	---	---

**f. Co-planning**

1	2	3	4	5
---	---	---	---	---

**g. Co-teaching**

1	2	3	4	5
---	---	---	---	---

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

In your school/center, how often are the following services available to early childhood teachers when students with disabilities are included in their classes?

a. Special materials to use with special education students

1	2	3	4	5
---	---	---	---	---

b. Inservice training on the needs of special education students

1	2	3	4	5
---	---	---	---	---

c. Teacher aides, instructional assistants, or aides for individual students

1	2	3	4	5
---	---	---	---	---

d. Specialized technology

1	2	3	4	5
---	---	---	---	---

e. Additional planning time

1	2	3	4	5
---	---	---	---	---

f. Reduced class size

1	2	3	4	5
---	---	---	---	---

In your school/center, how frequently are the following goals and supports included in the IFSP/IEP's of students with disabilities?

a. Behavioral goals and objectives

1	2	3	4	5
---	---	---	---	---

b. Academic goals and objectives

1	2	3	4	5
---	---	---	---	---

c. Social skills goals

1	2	3	4	5
---	---	---	---	---

d. Family supports

1	2	3	4	5
---	---	---	---	---

How often does your school use the following approaches to include parents in the process of instructional planning and decision-making for their children with disabilities?

a. Periodic telephone contact

1	2	3	4	5
---	---	---	---	---

b. Periodic planning session involving teacher and parent/guardian (face-to-face)

1	2	3	4	5
---	---	---	---	---

**c. Periodic written exchange, including e-mail**

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

In your school/center, how frequently are the following strategies and approaches used to involve families when developing IFSP/IEP's?

**a. Seek parent/guardian input through a written form prior to meeting**

1	2	3	4	5
---	---	---	---	---

**b. Seek parent/guardian input through telephone contact prior to meeting**

1	2	3	4	5
---	---	---	---	---

**c. Send parent/guardian a draft of the IFSP to review before meeting**

1	2	3	4	5
---	---	---	---	---

**d. Schedule meetings at times other than during school hours**

1	2	3	4	5
---	---	---	---	---

**e. Use a parent advocate to help parent/guardian have input at meeting**

1	2	3	4	5
---	---	---	---	---

**f. Assign one staff member to be the point of contact for parent/guardian**

1	2	3	4	5
---	---	---	---	---

In your school, how often are the following approaches used to assess students with disabilities?

**a. Curriculum-based assessment**

1	2	3	4	5
---	---	---	---	---

**b. Commercial standardized test**

1	2	3	4	5
---	---	---	---	---

**c. Observation**

1	2	3	4	5
---	---	---	---	---

**d. Personal interview**

1	2	3	4	5
---	---	---	---	---

**e. Other, please specify \_\_\_\_\_**

1	2	3	4	5
---	---	---	---	---

## Demographics

**Please respond to the following questions by filling in the blank space to the right of the question or answer choice.**

1. How many students total are enrolled in your program at the present time? \_\_\_\_\_
2. How many students are enrolled at each of the following ages?  
 3 years old \_\_\_\_\_ 4 years old \_\_\_\_\_ 5 years old \_\_\_\_\_
3. How many students total are currently receiving special education services? \_\_\_\_\_
4. How many teacher's aides/assistants do you employ? \_\_\_\_\_
5. How many office/clerical staff do you employ? \_\_\_\_\_
6. How many classrooms does your program have? \_\_\_\_\_
7. Please **estimate** the following:
  - a. Percentage of your students whose family has insufficient resources to meet the child's basic needs (i.e., financial, educational and medical) \_\_\_\_\_
  - b. Percentage of your students whose family has sufficient resources to meet the child's basic needs \_\_\_\_\_
  - c. Percentage of your students whose family has resources that far exceed those necessary to meet the child's basic needs \_\_\_\_\_
8. Which of the following best describes your program?
  - a. Home-based (housed and operating in the caregiver's home) \_\_\_\_\_
  - b. Church-affiliated (includes a religious component to the curriculum) \_\_\_\_\_
  - c. Public school (housed and operating in the public school system) \_\_\_\_\_
  - d. Private school \_\_\_\_\_
  - e. Other, please specify \_\_\_\_\_
9. In what type of geographic area is your program located?
  - a. Rural \_\_\_\_\_
  - b. Urban \_\_\_\_\_
  - c. Suburban \_\_\_\_\_

**Thanks so much for your help!**