

Introduction

The use of paraeducators to support students with special needs has dramatically increased over the last 40 years. Recent estimates indicate there are over 451,710 full time equivalent special education paraeducators employed in schools in the United States providing support to students with disabilities ages 3 through 21 (U.S. Dept. of Education, 2011). This represents an increase from 2006 when there were 398,354 special education paraeducators (U.S. Dept. of Education, 2006). In Connecticut, during the 2012/2013 school year there were 9,562 full time equivalent special education instructional paraeducators employed in public schools grades Pre-Kindergarten through Grade 12 as compared to 8,505 special education instructional paraeducators employed in the 2006/2007 school year (Connecticut State Department of Education, 2006, 2013).

Schools primarily use paraeducators to include children with disabilities in the general education classroom (Giangreco, Edelman, Broer, & Doyle, 2001), and are therefore responsible for both direct and indirect services including instructional support for students with disabilities. In addition, they are responsible to monitor students' academic progress and to implement behavior management interventions. Thus, paraeducators are providing the greatest amount of direct services to children with disabilities even though they typically have the least amount of formal preparation and qualification (Giangreco & Broer, 2005; Brown, Farrington, Ziegler, Knight, & Ross, 1999). Also, there are typically few opportunities for on-the-job training for paraeducators or for professional development activities (Giangreco, Edelman, & Broer, 2001). Research investigating training for paraeducators has also shown that while paraeducators desire additional training, it is not typically offered to them and when offered may not be appropriate or practical considering the paraeducator's role and responsibility (Hall, Grundon, Pope, & Romero, 2010; Riggs & Mueller, 2001; Trautman, 2004).

The 1997 Amendments to the Individuals with Disabilities Education Act (IDEA; P.L. 105-17), allow the use of paraeducators, referred to as *paraprofessionals* in the legislation, who are "appropriately trained and supervised ... to assist in the provision of special education and related services to children with disabilities" (20 U.S.C. 1412(a)(15)(B)(iii)) and charged the states with the responsibility to develop comprehensive systems of personnel development, including training of paraeducators (20 U. S. C 1412(a) (14)). However, neither this legislation, nor its successor, gives guidance to states in defining what constitutes "appropriately trained and supervised" (20 U. S. C 1400 et seq., 2004). To fill this void, national standards for paraeducator competencies have been developed. The Council for Exceptional Children (CEC), in

collaboration with the National Resource Center for Paraeducators, validated the Special Education Paraeducator Common Core Specialty Set which contains ten professional development guidelines and specific knowledge and skills that paraeducators working with children with disabilities should possess (CEC, 2011).

Purpose

The purpose of this study was to examine instructional paraeducators' self-report of their knowledge and skills in competencies suggested as necessary for paraeducators to perform their jobs effectively. We also reviewed their education and experience, previous professional development opportunities, frequency of collaboration with teachers, grade level of supported students, and perceived training needs.

Methodology

Survey development

This survey was developed using Qualtrics by the University of Connecticut and piloted with paraeducators in one school district in the state to determine their training needs. Two of the authors were invited to discuss findings from the pilot survey with the Connecticut School Paraeducator Advisory Council and members of the Connecticut State Department of Education (CSDE). Based on the pilot and feedback from the advisory council, 28 questions were included in the survey. Three questions requested information from the respondent on years of experience in the job, highest level of education completed and whether they were certified teachers, followed by 13 questions concerning the students supported, opportunities for collaboration or meeting with teachers and the amount of prior training. A series of nine questions asked respondents to self-report their level of comfort on a four-point Likert scale (not sure, not comfortable, comfortable, or very comfortable) with competencies described in CEC's Special Education Paraeducator Common Core Specialty Set (CEC; as amended December, 2011). Specific competency areas included foundations, development and characteristics of learners, individual learning differences, instructional strategies, learning environments and social interactions, language, instructional planning, assessment, professional and ethical practice, and collaboration. The survey concluded with one open-ended question asking respondents to indicate topics on which they desired additional training.

Survey administration

Responses to a needs assessment were received from 2,438 paraeducators working in public elementary, middle and high schools in Connecticut. Since a statewide list of paraeducators does not exist, school district paraeducator contacts (n=186), identified by the CSDE, were used to recruit participants. An email correspondence, drafted and signed by a representative of the University of Connecticut and the CSDE, described the purpose of the survey and was forwarded to each district contact. The correspondence asked each contact person to forward an attached

email containing an electronic link with a designated URL to the survey to their district paraeducators. The electronic link was active for 30 days beginning the day emails were forwarded to district contacts. One week before the survey link closed, an email was sent to the paraeducator district contacts asking them to remind their paraeducators to complete the survey. Additionally, paper copies of the survey were distributed to attendees at the annual statewide Paraeducator Conference in November, 2013. Paraeducators attending the conference completed 102 surveys. However, due to the inability to confirm that the survey link was forwarded to each paraeducator in every district, it is not possible to report a response rate. All responses to the survey were anonymous and no identifying information was collected.

Data analysis

Since participants had the option to skip any of the questions, the total number of participants who completed many of the questions is often less than the total sample size. For many of the questions, participants could choose more than one option so the total number of responses will exceed the number of participants. In addition, the appearance of several questions was determined by skip logic and depended on answers to previous questions so the number of responses for these questions is substantially below the total sample size. All responses are included herein in order to provide an unbiased account of the data. The data were collected from Qualtrics and the data from the paper surveys were added to the database. This data was imported into SPSS, where descriptive statistics were calculated for the demographic questions and Chi square statistics were calculated for each of the CEC competency self-perceptions versus years of experience and highest level of education.

Results

The sample characteristics are shown in Table 1 as well as the reported characteristics of students served by the paraeducators in the sample. The majority of the paraeducators had been a paraeducator for greater than 10 years (54%), did not have a Bachelor's degree (59%), and were not certified as teachers (91%). The sample provided services to students across the PK-12 system though more paraeducators appear to work in elementary school (1-4; 31%) versus middle (7-8; 13%) or high school (9-12; 14%). Most paraeducators are responsible for 2-4 students at a time and have total caseloads (the number of students they serve throughout the day) of more than 10 students. They provide services primarily in the general education classrooms, but are also involved in self-contained classrooms, resource rooms, and other settings such as the cafeteria, recess, and "specials" such as art and music.

Paraeducators primarily provided services to students with IEPs (85%). However, fewer paraeducators have read the relevant pieces of their students' IEPs (71%) or have had their roles and responsibilities as mandated by the IEP explained to them (67%). Only 37% of paraeducators reported serving students with 504 plans, however, 30% were unsure if they served a child with a 504 plan and 10% responded that they were not familiar with the term.

The reported frequency of collaboration meetings between the paraeducator and special, general, and their supervising teachers are shown in Table 2. Forty-nine percent of paraeducators reported having daily meetings with a special education teacher. However, 13% reported not having collaboration meetings with their special education teacher and 15% chose “Other.” The frequency of meetings with general education and supervising teachers mirrored this pattern as most (~51%) paraeducators reported daily collaboration meetings and approximately 25% chose “Never” or “Other.” Of the respondents who chose “Other,” the majority indicated that they meet with teachers on as needed basis. In addition, most paraeducators (49%) indicated that their supervising teacher is responsible for 1-4 additional paraeducators.

Paraeducators reported their level of comfort with the CEC’s knowledge and skills domains and these data are depicted in Table 3. Across domains, a substantial majority (approximately two-thirds) indicated that they were comfortable or very comfortable with their level of knowledge and skills within those domains. In order to understand what characteristics may influence the reported level of comfort, two sets of χ^2 tests were conducted. The first set involved comparing each of the level of reported comfort within each of the CEC domains by reported years of experience. The domains with statistically significant results were learner differences ($p=0.024$), instructional strategies ($p=0.042$), and language ($p=0.004$). Follow-up analyses indicated that years of experience were not a meaningful characteristic for parsing reported comfort level.

As there was only a weak correlation between reported years of experience and reported level of education ($r=0.337$, $p<0.001$), a second set of chi-square tests was run for reported highest level of education by level of comfort with each CEC domain. Across all domains, the results were statistically significant (p values ≤ 0.001) and two patterns emerged. First, individuals who indicated that they had received a graduate degree were more likely to indicate they were very comfortable with the knowledge and skills in every domain and less likely to indicate they were not sure or not comfortable in every domain. Second, individuals who reported high school as their highest level of education were more likely to indicate not sure in each domain and less likely to indicate very comfortable in each domain.

Additionally, twenty percent of the paraeducators reported not receiving any training in the previous 12 months; of those who reported receiving training, there was considerable variation in the number of hours reported. Paraeducators also indicated a preference for small group/one-day workshops (51%) that were held during school hours (79%).

Paraeducators also responded they desired training on the following topics: specific disabilities ($n = 92$; autism, $n = 54$), behavior management ($n = 133$), technology ($n = 70$), general education ($n = 91$; common core instruction, $n = 30$), language and communication ($n = 29$; sign language, $n = 14$), medical needs of students ($n = 25$), and the special education process ($n = 51$; IEP issues, $n = 27$).

As in prior studies, specific comments by paraeducators highlight the lack of preservice training. One paraeducator stated: “I was basically thrown into the fire without any training other than being a parent. I want to help but I feel I need training to be the best that I can be and the best I can offer to my student.” Others refrained that they were “expected to learn from other paraeducators.” One comment discussed the student’s perception of the paraeducator in the classroom: “We work side by side and in most cases the student doesn’t know the difference between the teacher and the paraeducator.” Some references to the general education classroom call into question the paraeducator’s understanding of inclusive educational practices: “I feel that special education students need more time pulled out so they can have instruction in a small setting, it’s very overwhelming for them,” and “Does mainstreaming the student in the classroom really provide the proper education, especially when children are at all different levels when they are special ed?” Other comments call into question the level of supervision received by paraeducators and whether they are functioning as primary instructors and decision-makers for students. For example, in reference to changes in curriculum as a result of the common core, one paraeducator commented: “I love to develop curriculum so how should I rewrite the mastery test questions now?” This comment indicates the confusion faced by paraeducators as to the roles they should serve.

Discussion

The majority of paraeducators responding to this survey reported their level of comfort with the identified competencies to be comfortable or very comfortable, with those paraeducators having master and graduate degrees to be the most likely to report they were very comfortable with the knowledge and skills in every CEC domain. Those paraeducators who reported high school as their highest degree completed were more likely to indicate not sure in every domain. Although over half of the paraeducators responding to the survey had more than ten years experience, years of experience was not a meaningful characteristic for explaining comfort level with the CEC knowledge and skills domains.

Comments made by paraeducators demonstrate their ongoing desire for specific training, as well as confirms the increasing responsibility placed on paraeducators to provide instructional support for students with special needs. Further, some comments call into question the level of supervision being provided to paraeducators by responsible teachers.

Finally, a deeper assessment of paraeducator’s actual knowledge and skill in each of the CEC domains is required in order to gain a better understanding of competence, which will guide districts toward an effective and comprehensive professional development system for paraeducators.

Table 1

Sample Characteristics

Characteristic	n	Percentage
Years experience		
1-3	369	15%
4-6	348	14%
7-9	402	16%
10+	1319	54%
Education		
High school	396	16%
Some college	632	26%
Assoc.	405	17%
Bachelor	764	32%
Master	193	8%
Graduate	34	1%
Certified teacher		
Yes	217	9%
No	2206	91%
Grade levels served ¹		
PK-K	714	21%
1-4	1077	31%
5-6	723	21%
7-8	462	13%
9-12	466	14%
Maximum number of supported students at one time		
1	411	18%
2-4	928	40%
5-10	588	25%
10+	421	18%
Total caseload		
1	235	10%
2-4	470	20%
5-10	584	25%
10+	1040	45%
Location		
Special Education Classroom	922	22%
Resource Room	831	20%
General Education Classroom	1865	44%
Other	633	15%

¹Participants could choose more than category.

Table 2

Reported frequency of collaboration meetings

	n	Percentage
Special Education Teacher		
Daily	1123	49%
Weekly	366	16%
Monthly	113	5%
2 times per year	69	3%
Never	300	13%
Other	338	15%
General Education Teacher		
Daily	1192	52%
Weekly	398	17%
Monthly	74	3%
2 times per year	36	2%
Never	276	12%
Other	326	14%
Supervising Teacher		
Daily	1148	51%
Weekly	319	14%
Monthly	91	4%
2 times per year	56	2%
Never	334	15%
Other	304	13%

Table 3

Level of comfort with CEC domains by level of education

CEC domain/Level of comfort	High school	Some college	Assoc.	Bach.	Grad.	Total
Foundations of Professional and Ethical Practice¹						
Not sure	67*	88	60	65*	17*	299
Not comfortable	73	134	83	167	38	498
Comfortable	169	271	175	346	110	1078
Very comfortable	34*	75	42	115	48*	317
Development and Characteristics of Learners¹						
Not sure	63*	78	51	52	8*	254
Not comfortable	67	109	71	137	22*	406
Comfortable	189	301	189	395	133	1219
Very comfortable	25*	78	47	114	49*	314
Individual Learner Differences¹						
Not sure	61*	73	50	58*	11*	256
Not comfortable	47	98	71	151	21*	388
Comfortable	203	315	193	372	122	1215
Very comfortable	28*	81	44	112	59*	326
Instructional Strategies¹						
Not sure	36*	49	23	39	12	161
Not comfortable	32*	78	57	123	30	320
Comfortable	220	337	221	409	116	1316
Very comfortable	52	98	55	123	55*	383
Learning Environments and Social Interactions¹						
Not sure	40	48	30	51	14	185
Not comfortable	32*	75	56	134*	39	337
Comfortable	226	329	215	383	112	1273
Very comfortable	42	92	51	106	41	334
Language¹						
Not sure	59*	65	43	69	15	253
Not comfortable	52	98	61	133	31	377
Comfortable	200	313	205	373	120	1219
Very comfortable	26*	70	42	97	42*	278
Instructional Planning¹						
Not sure	49*	59	33	66	12	221
Not comfortable	55	103	62	159	27	406
Comfortable	196	309	209	344	123	1192

CEC domain/Level of comfort	High school	Some college	Assoc.	Bach.	Grad.	Total
Very comfortable Assessment ¹	33*	78	49	103	48*	311
Not sure	43*	43	32	55	11	186
Not comfortable	36	64	54	103	25	283
Comfortable	222	324	206	380	118	1258
Very comfortable Collaboration ¹	38*	107	61	137	53*	399
Not sure	54	72	46	64	18	256
Not comfortable	62	127	73	161	31	455
Comfortable	194	261	177	328	107	1074
Very comfortable	25*	81	56	120	52	336

¹ χ^2 for CEC domain by level of education was statistically significant ($p \leq 0.001$).

*Indicates standardized residual was statistically significant utilizing the Keppel modification of the Bonferroni correction.

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