

The Critical Shortage of Speech-Language Pathologists in the Public School Setting: Features of the Work Environment That Affect Recruitment and Retention

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The paucity of qualified speech-language pathologists (SLPs) to serve students in the public school setting is a national concern (American Speech-Language-Hearing Association [ASHA], 2004e). Many school-age children who require speech and language services either are not being served or are being served by out-of-field professionals (Florida Department of Education, 2002). According to the “24th Annual Report to Congress on the Implementation of Individuals with Disabilities Education Act” (IDEA PL 101-476), “speech or language impairment” was the most prevalent disability category, accounting for 55.2% of all preschoolers served in 2000–2001 (U.S. Department of Education, 2002). In addition, the majority (56.3%) of the preschoolers who were served for speech or language impairment in the United States were Hispanic. For students ages 6 through 12 who were served under IDEA, “speech or language impairment” (18.9%) was the second largest category of students

served in a federally supported program for the disabled after “specific learning disabilities” (50.0%) (U.S. Department of Education, 2002). For students in the 12 through 17 and 18 through 21 age groups, the “speech or language impairment” category was ranked fifth and sixth in size, respectively, after “specific learning disabilities.”

According to the U.S. Bureau of Labor Statistics (BLS), the employment of SLPs is expected to grow much faster than the average for all occupations through the year 2010. In their estimates for 2002 to 2012, speech-language pathology ranked 12th out of the 700 occupations that it lists (U.S. Department of Labor, 2004b). According to the BLS, more than 26,000 additional SLPs will be needed to fill the demand between 2002 and 2012—a 27% increase in job openings. A total of 49,000 job openings for SLPs is projected between 2002 and 2012 due to growth and net replacements (U.S. Department of Labor, 2004a). A study by the American Association

ABSTRACT: Purpose: The primary focus of this study was to elicit the perspectives of speech-language pathologists (SLPs) regarding features of the work environment that contribute to and/or hinder recruitment and retention in the public school setting.

Method: A questionnaire was distributed to SLPs employed in 10 school districts in Central Florida representing small, medium, and large school districts. The primary goal of the questionnaire was to elicit the perspectives of school-based SLPs regarding (a) factors in the work environment that contribute to retention, (b) factors in the work environment that hinder retention, and (c) issues that may contribute to the recruitment and retention of SLPs in the school setting. A total of 382 questionnaires was obtained, yielding a 64.5% response rate.

Results: The participants ranked working with children, school schedule, and educational setting as primary reasons for their satisfaction with working in the public school setting. The participants ranked workload, role ambiguity, salary, and caseload as primary reasons for their dissatisfaction with working in the public school setting.

Conclusion: Themes emerged from the data that provide insight into several factors that serve as powerful influences in understanding issues of recruitment and retention of SLPs in the public school setting.

KEY WORDS: critical shortage, recruitment, retention, workload, caseload

for Employment in Education (1999) lists SLPs as ranking third in the nation for number of vacancies as compared to other areas in education.

In 2002, the U.S. Office of Special Education Programs conducted a "Study of Personnel Needs in Special Education." Respondents reported 11,148 job openings for SLPs in school settings for the 1999–2000 academic year (Office of Special Education Programs, 2002). From the respondents' perspective, the greatest barrier to recruiting SLPs was "shortage of qualified applicants." Fifty-nine percent of respondents reported less-than-qualified applicants as having the greatest impact on shortages (Office of Special Education Programs, 2002), with the percentage being the highest in the Western geographic division of the United States (82%), Mountain Plains division (78%), and Southeast division (64%). This decrease in qualified personnel can be partially attributed to the high turnover rate of SLPs in the public school setting due to job dissatisfaction (Office of Special Education Programs, 2002).

The national demand for skilled clinicians in public school districts combined with the need in the private sector has exceeded the number of students who are graduating with degrees in communication disorders. In the 2000–2001 academic year, 15,464 students applied to a master's program in communicative disorders. Of the 15,464 students nationwide, only 6,650 (43.0%) were admitted, and of those admitted, only a little more than half, 3,733 (56.1%), actually enrolled in graduate programs (ASHA, 2004e).

Fiscal constraints and the increased workload in public schools have made it more challenging to provide effective services to children with communication impairment. In addition, salary scales are frequently higher in the private sector, and caseload sizes are often smaller. The median calendar-year salary for school-based SLPs lagged behind that for colleagues in other settings by nearly \$7,000 (ASHA, 2004e). As a result, SLPs are more readily recruited to private employment settings (Rosa-Lugo, Rivera, & McKeown, 1998). According to ASHA's (2004e) national school survey, a total of 44.3% of certified SLPs do not work in the school setting.

ASHA (2004a) reported that in the year 2004, there were 95,698 certified SLPs across the United States. Of those 95,698 SLPs, 56.5% were White, 1.8% were Hispanic, 1.4% were African American and 37.6% did not specify. The remaining 2.7% were Multiracial, Asian, American Indian, or Native Hawaiian. The median age for SLPs was 45–54 (30.9%), followed by 34 and younger (28.6%). There continues to be a critical shortage of male SLPs, as indicated by ASHA's (2004a) findings that 95.5% of SLPs were female and only 4.5% were male.

Public schools in the United States have difficulty recruiting and retaining SLPs from culturally and linguistically diverse (CLD) backgrounds (Roseberry-McKibbin, Brice, & O'Hanlon, 2005). Of 1,207 SLPs working in public school settings in the United States, 94.4% (1,140) were European American (Blood, Ridenour, & Thomas, 2002). Only 2.4% (29) were African American, 1.9% (23) were Hispanic American, and a mere 1.2% (15) were Asian American. Of these professionals, 96.3% (1,162) were female, and only 3.7% (45) were male (Blood et al., 2002).

The U.S. Bureau of the Census (2000) reported that racial and ethnic minorities accounted for up to 80% of the nation's population growth, and that 43.0% of the school-age population is Hispanic. In the year 2000, approximately 87 million people from minority backgrounds were living in the United States, representing a 43% increase from 1990. Over the past 20 years, the non-Hispanic White population in the United States grew by only 7.6%, whereas the

population of individuals from racial minority backgrounds grew by more than 90% (Roseberry-McKibbin et al., 2005). In addition, 6.3 million children between the ages of 5 and 17 speak languages other than English at home, representing 14% of the total school-age population (U.S. Bureau of the Census, 2000).

It is estimated that the prevalence of communication disorders among Hispanic Americans is 3.4 million, with a projected 9.7 million by the year 2025 (ASHA, 2004e). As the population of Hispanic children in the United States continues to grow, so does the demand for SLPs who are bilingual and literate in a language other than English. Roseberry-McKibbin et al. (2005) reported that the most common ethnic group on respondents' caseloads in both the 1990 (Roseberry-McKibbin & Eicholtz, 1994) and the 2001 study was Hispanic, followed by Asian. In the 1990 survey, only 10% of the respondents spoke another language fluently enough to provide services in that language, compared to 12% in 2001. According to ASHA's (2004a) national summary membership and affiliation counts, only 1,754 (1.8%) SLPs out of 95,698 total members are Hispanic, and only 2% of ASHA-certified professionals self-reported being bilingual. These figures suggest that the number of SLPs needed to work with Hispanic children and youth is inadequate for the number of students who are currently enrolled in the public school setting in the United States.

Children from CLD backgrounds present a challenge for SLPs due to the linguistic diversity and proficiency they possess in their first and second language. SLPs working with students from CLD backgrounds must have the competency to distinguish between normal characteristics of second language acquisition, a communication difference, and/or a communication disorder. Otherwise, they may violate state and federal mandates by mislabeling children as language disordered when the children may only be manifesting language differences (Kritikos, 2003).

THE CRITICAL SHORTAGE OF SPEECH-LANGUAGE PATHOLOGISTS—A FLORIDA PERSPECTIVE

Many states in the United States have experienced a net gain in population, although different states have experienced different growth patterns. Kohnert, Kennedy, Glaze, Fong Kan, & Carney (2003) pointed out that these demographic changes can be attributed to individuals moving from one state to another, changes in birth and death rates, and immigration to the United States. For example, immigration has resulted in demographic changes in New York, Texas, California, Minnesota, and Florida (Fradd & Lee, 1999; Kohnert et al., 2003; Roseberry-McKibbin et al., 2005) and will require an adequate number of qualified SLPs to serve the growing number of diverse students in the public school setting.

Florida's demographic composition has changed significantly during the past 35 years (Boswell, 1999). Florida is one of the major entryways for immigrants and non-English-speaking students. For this reason, the public schools in Florida face challenges that are not experienced by many other states (Fradd & Lee, 1999). Boswell pointed out that Florida's growth has been generated mainly by migration from Latin American countries, with significant numbers of immigrants from Europe and Asia, causing Florida's population to become increasingly diverse. Demographic data from the U.S. Bureau of the Census (2003) revealed that a significant portion of Central Florida's population growth could be linked to an increase in the number of CLD

residents living in the area. This trend has also been seen nationwide (Rosa-Lugo et al., 1998). According to the U.S. Bureau of the Census, Florida (254,517) represents the third largest enrollment of CLD students in the United States during the 2000–2001 school year after California (1,511,646) and Texas (570,022), and followed by New York (239,097), Illinois (140,528), and Arizona (135,248).

Florida's changing population is directly reflected in the altering ethnic composition of its public school population. Of the 35.3 million people of Hispanic origin residing in the United States in 2000, a little less than half, 16.0 million (45.3%), live in Florida (U.S. Bureau of the Census, 2002b). From 1990 to 2000, Florida's ranking in population size increased more than any other state, from 33rd to 4th (U.S. Bureau of the Census, 2002a). Florida experienced a 3.5% increase in population size from 12,937,926 in 1990 to 15,982,378 in 2000, which corresponds to approximately 3,044,400 new residents.

In their study focusing on the current educational policies and practices in the state of Florida for meeting the workforce needs of the 21st century, Fradd and Lee (1999) noted that Florida is undergoing massive changes for all students and professionals in the public school system. The challenge of having an insufficient supply of qualified SLPs in the public school setting has been explored (Blood et al., 2002; Fradd & Lee, 1999; Rosa-Lugo et al., 1998; Roseberry-McKibbin et al., 2005; Roseberry-McKibbin & Eicholtz, 1994), and the demand for qualified SLPs continues to surpass supply. With public school personnel retirements increasing annually, and the effects of the baby boom echo generation increasing enrollments in student population, more than 3,000 SLPs are needed in Florida alone by the year 2015 (Florida Department of Education, 2001b).

Florida's public schools have continued to show tremendous growth since 1999 (Hinman, 1997). Enrollment at the elementary level in 2003–2004 is expected to grow at approximately 1.8%, with 3% growth in Grades 6–8 and 3.5% in Grades 9–12. According to data published by the National Center for Education Statistics, Florida public elementary schools have the highest average enrollment in the United States (U.S. Department of Education, 2001). For the 2000–2001 school year, Florida averaged 674 students per elementary school, which was slightly higher than the second ranked state, Georgia, which averaged 607 students per elementary school. The national average is 441. Average enrollment in Florida's secondary schools is also highest in the nation at 2,634 students per school, nearly double the national average of 1,365 (Florida Department of Education, 2004a).

According to the "Critical Teacher Shortage Areas Report for 2003–2004" (Florida Department of Education, 2002), "speech and language impaired" has been designated as a critical shortage area since 1993. In fall 2001, there were 2,485 SLPs in Florida's public schools. Of those 2,485 SLPs, 291 were new hires, and 35 (12.0%) out of the 291 new hires were not certified in speech language pathology—the largest percentage in the 17-year history of the new hires survey (Florida Department of Education, 2002). As of fall 2002, there were 4,589 SLPs in Florida, of which 3,068 (66.9%) were employed in Florida's public schools (Florida Department of Education, 2004b). It is anticipated that the number of SLPs that will be needed for the 2020–2021 school year will result in 417 new vacancies (378 due to resignations and 39 due to growth) (Florida Department of Education, 2001b).

In Florida, six of the eleven public universities in the state university system have communication disorders programs—four bachelor degree programs, six master's degree programs, and three

doctoral degree programs. The number of students who graduated with a bachelor degree in communicative disorders during the 2000–2001 academic year was 259 (Florida Department of Education, 2002); the projected number of SLPs needed in Florida's schools during the 2003–2004 school year was 346 (Florida Department of Education, 2002).

LITERATURE REVIEW: FEATURES THAT AFFECT RECRUITMENT AND RETENTION

Recruiting and retaining well-qualified SLPs in public schools is a national priority (ASHA, 2004e). Research has identified job satisfaction, workload, and caseload as factors that affect the recruitment and retention of school-based SLPs (Blood et al., 2002; Dowden, Alarcon, Vollan, Cumley, Kuehn, & Amtmann, 2006; Miller & Potter, 1982; Pezzeri & Oratio, 1991; Wisniewski & Gargiulo, 1997).

Job satisfaction is defined as an attitudinal variable measuring the degree to which employees like their jobs and the various aspects of their jobs (Spector, 1996). Job satisfaction is correlated to enhanced job performance; positive work values; high levels of employee motivation; enhanced physical and mental health; and lower rates of absenteeism, turnover, and burnout (Begley & Czajka, 1993; Bluedorn, 1982; Bobbitt, Leich, Whitener, & Lynch, 1994; Chiu, 2000). In 1997, Wisniewski and Gargiulo reviewed and critiqued the literature on occupational stress, attrition, job satisfaction, and burnout in special educators, including SLPs. They reported that SLPs were subject to "high levels of occupational stress, tension, and negative attitudes due to their large caseloads, minimal facilities and resources, and professional isolation" (p. 338). This sense of isolation is often combined with a feeling of powerlessness to influence major decisions and policies that guide their work. Wisniewski and Gargiulo concluded that high attrition rates were directly related to job dissatisfaction. In addition, lack of recognition, few opportunities for promotion, excessive paperwork, loss of autonomy, lack of supplies, low pay, and stressful interpersonal interactions all contributed to the decision by SLPs to leave the school setting.

Surprisingly, few other studies have been conducted on the job satisfaction of SLPs (Blood et al., 2002; Goldberg, 1993; Kaegi, Svitich, Chambers, Bakker & Schneider, 2002; Miller & Potter, 1982; Pezzeri & Oratio, 1991; Potter & Lagace, 1995). A study by Pezzeri and Oratio of 281 SLPs working in public schools revealed that supervision, workload, coworker's support, SLP's backgrounds, and specific job settings were the most predictive of job satisfaction. Goldberg's study on factors contributing to high levels of stress and burnout in school-based SLPs included an increase in the number of children who were identified with disabilities, school cutbacks of funding, excessive caseload sizes, significant administrative responsibilities, increased paperwork, and lack of resources to do the job. The Council for Exceptional Children (2000) reported that SLPs often feel ineffective because many of their students have persistent problems with learning, motivation, and behavior.

A study conducted by Blood et al. (2002) compared the job satisfaction ratings of SLPs working in schools with other workers on a standardized index and examined whether geographic setting (i.e., rural, suburban, and urban), specific demographic variables (i.e., gender, ethnicity, age, and education), and practice-related variables (i.e., years in current position and caseload size) explain/predict job

satisfaction among SLPs working in public schools. Two-thousand school-based SLPs living in the United States were randomly selected from the ASHA national membership list. The participants were sent a survey in the mail consisting of informed consent, demographic items, practice-related items, geographic locale of the work setting, and a standardized job satisfaction scale (Spector, 1996). A 60.4% return rate was achieved (1,207 responses).

Results showed that less than half of the SLPs surveyed were generally satisfied with their jobs (42.2%), and slightly more than one third were highly satisfied (34.1%). Results of the regression analyses revealed that the age of participants (i.e., older were more satisfied), years at current job (i.e., SLPs with greater number of years were more satisfied), and caseload size (i.e., SLPs with smaller caseloads were more satisfied) were predictive of job satisfaction of SLPs working in the schools. In addition, SLPs were less satisfied than the normative samples with their pay and pay raises, opportunities for promotion and advancement, satisfaction with coworkers, and supervision by their primary supervisor. There were no differences among rural, suburban, and urban SLPs in their overall job satisfaction. In summary, this study showed that the age of participants, years at a job, and caseload were predictive of job satisfaction.

A study by Kaegi et al. (2002) focused on the job satisfaction and job setting characteristics of school-based SLPs in three regions of Canada. A 44-item questionnaire was completed by school-based SLPs working in an Ontario city, in an Alberta city, and in rural Alberta areas. Results indicated that 76% of the SLPs reported burnout, caseload was a significant predictor of job satisfaction, and SLPs were negatively affected by changes to the workplace. This study suggested that additional areas need to be explored, such as the changing workplace and identification of specific factors that may contribute to the satisfaction or dissatisfaction of SLPs. This present study adds to the knowledge base of the previous studies by Blood et al. (2002) and Kaegi et al. by focusing on the specific factors in the work environment that contribute to the satisfaction or dissatisfaction of SLPs in the public school setting.

During the past decade, numerous changes have occurred in the discipline of communicative sciences and disorders that have resulted in increased demands on SLPs to develop new knowledge bases and specialized technical skills (ASHA, 2000c; Whitmire, 2001). Technological advancements in areas such as augmentative and alternative communication, cochlear implants, voice, and dysphagia, coupled with additional administrative responsibilities, legal mandates requiring more paperwork, and interdisciplinary meetings, have increased the workplace demands of SLPs (Blood et al., 2002). Furthermore, earlier identification of children with communication disabilities, the role of the SLP in literacy (ASHA, 2000c), and increased recognition of the needs of children with multiple disabilities have resulted in large and oversized caseloads, greater time demands, and additional workload responsibilities for SLPs (ASHA, 2000c; Blood et al., 2002). For all these reasons, SLPs are especially vulnerable to job burnout and dissatisfaction.

Traditionally, a school-based SLP's workload has been conceptualized as being synonymous with caseload (ASHA, 2002). Caseload, however, is more accurately conceptualized as only one part of an SLP's total workload (Ehren, 2001; Power-deFur, 2001). The term *caseload* typically refers to the number of students with individual education plans (IEPs) or individualized family service plans (IFSPs) that school-based SLPs serve through direct and/or indirect service delivery options (ASHA, 2002). *Workload* refers to all activities that are required and performed by school-based SLPs. Increases in caseload

correspond with simultaneous increases in meetings and paperwork demands. ASHA guidelines divide the school-based SLP's workload into four activity clusters: direct services to students; indirect activities that support students in the least restrictive environment and the general education curriculum; indirect services that support students' educational programs; and activities that support compliance with federal, state, and local mandates (Annett, 2003). Each student added to the caseload increases the time needed for evaluation, diagnosis, direct and indirect services, mandated paperwork, multidisciplinary team conferences, parent and teacher contacts, and many other responsibilities. ASHA (2002) reported that when one student is added to the caseload, 10 meetings and 52 forms are also added.

IDEA, in particular, has increased the responsibilities of the school-based SLP (ASHA, 2000b). With IDEA reauthorization in 2004, school-based SLPs now serve more children and adolescents with multiple disabilities and complex communication disorders (Vaughn, Bos, & Schumm, 2003). SLPs report that the number of hours each week used for direct intervention with large numbers of students leaves little time for meetings, collaborating with other teachers, and supporting students' education programs (ASHA, 2002). In a typical week, SLPs report that they spend approximately 70% of their time providing direct intervention and evaluations (ASHA, 2004d). The remainder of their time is spent on other required work-related activities, including record keeping, paperwork, report writing, planning and preparation for intervention, and parent/staff meetings. According to the ASHA "2004 Schools Survey," paperwork was the greatest challenge in four out of five facilities (ASHA, 2004d). A national comparison of the average amount of time spent per week by SLPs on professional activities revealed that the percentage of time spent on direct intervention increased from 54% in 1995 to 65% in 2000 (ASHA, 2000b). There was a corresponding decrease in the time available for other mandated workload activities from 1995 to 2000, including time for evaluations (9% to 7%), planning (8% to 6%), and paperwork (9% to 8%).

The current trend of increasing caseloads and the expanded responsibilities of SLPs are important factors contributing to high rates of attrition (ASHA, 2002). Caseload size in speech-language programs is not mentioned in federal special education laws, leaving control of this matter to state law and regulations. As a result, there is extensive variation among state requirements for caseload size. Although ASHA has recommended that caseloads not exceed 40 under any circumstances, with special populations dictating a maximum of 25 or less, the average number of students on caseloads has remained significantly higher than these maximum numbers. Many states and school districts interpreted the maximum as a minimum and increased caseloads until many clinicians were at a breaking point (Annett, 2003). ASHA reported that the median monthly caseload of school-based ASHA-certified SLPs is 50, ranging from 20 to 53 (ASHA, 2004d). The state of Florida reported the second highest average caseload, with a median of 64 and a standard deviation of 26, second only to Indiana's average caseload size of 75 (ASHA, 2004d).

Large caseloads constrain the service delivery options that SLPs can provide to students with disabilities. Despite IDEA's focus on collaboration and consultation, most intervention services continue to be delivered through a pullout model, primarily with groups rather than individuals (ASHA, 2002). The ASHA National Outcomes Measurement System (NOMS) report confirms that the vast majority of students with disabilities (92%) receive speech-language intervention in pullout groups regardless of the disorder being treated (ASHA,

2000a). Two thirds of students are seen for intervention two times per week, and more than 75% of those sessions are only 21–30 min in length (ASHA, 2000a).

Large caseloads relate to less individualized treatment and an increase in the size of treatment groups. For SLPs with caseloads greater than 40 students, treatment groups of 5 or more were much more commonly used (31% of the time vs. 6% for caseloads under 40), and individual treatment was nonexistent (ASHA, 2000b). In smaller size instructional groups, students with a wide range of disabilities are more engaged and have better student outcomes, and their communication skills are positively influenced (ASHA, 2002).

Chiang and Rylance (2000) conducted a survey of a random sample of 210 Wisconsin school-based SLPs in a comprehensive study on SLP caseloads. Results indicated that SLPs with large caseloads (> 40) conducted a high percentage of treatment in pullout/resource settings (68%) so as to allow them to offer treatment to the largest number of students in the least amount of time (Chiang & Rylance, 2000). In contrast, SLPs with fewer than 40 children on their caseload were more likely to provide individual treatment and use a variety of delivery models (classroom based, collaborative consultation, etc.). In addition, 75% of the SLPs reported that caseload affected job satisfaction, 81% reported that caseload affected the type of intervention used, and 83% reported that caseload affected their ability to engage in collaboration with other teachers (Chiang & Rylance, 2000).

Given the severity of the critical shortage crisis of SLPs in Florida and across the United States, this study advanced three research questions to elicit the perspectives of school-based SLPs about their work environment in order to identify features that contribute to and/or hinder recruitment and retention in the public school setting. Unlike previous studies, themes emerged from the data that provide new insight into several factors that serve as powerful influences in understanding issues of recruitment and retention of SLPs in the public school setting.

Research Questions

1. What are the major reasons (features strongly favored) given by SLPs in Central Florida's public schools for choosing to work in the public schools?
2. What are the major issues (features strongly disfavored) reported by SLPs in Central Florida's public schools?
3. How many years do SLPs who are currently employed in Central Florida's public schools anticipate remaining in their current position? What is the relationship between number of years employed in the schools (longevity) and number of years that SLPs plan on remaining employed in the schools (retention)? How does this relationship interact with the positive features and negative issues reported in research questions 1 and 2?

METHOD

Participants

A total of 3,068 SLPs were employed in Florida's public schools during the 2002–2003 school year (Florida Department of Education, 2004b). On the basis of the most recent "Annual Exceptional Education Personnel Data Report" (Florida Department of Education, 2004b), a total of 592 SLPs were employed in Central Florida's public schools during the 2002–2003 school year. Table 1 depicts that of 592 potential participants, 382 SLPs completed a questionnaire, yielding a 64.5% response rate. Nearly two thirds of the SLPs employed in the Central Florida school districts were represented in this study, representing 12.5% of the total professional workforce in Florida's public schools. Although this study focused specifically on 10 school districts in the Central Florida area, they were representative of small, medium, and large school districts.

The 10 school districts that make up Central Florida are Brevard, Citrus, Flagler, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia. These 10 districts represent small, medium, and large school districts in Florida and provide a CLD sample of school-age children (Florida Department of Education, 2001a). In the fall of 2003, Sumter County was categorized as a small school district (6,467 students; 15 schools); Flagler (7,485 students; 11 schools) and Citrus (14,904 students; 24 schools) were categorized as medium size school districts; and Lake (31,071 students; 56 schools), Marion (38,310 students; 64 schools), Osceola (36,885 students; 51 schools), Volusia (61,511 students; 93 schools) Seminole (62,241 students; 75 schools), Brevard (71,700 students; 121 schools), and Orange (155,506 students; 185 schools) were categorized as large school districts (Florida Department of Education, 2004c).

In the fall of 2003, there were 494,187 students enrolled in the 10 schools districts in Central Florida (Florida Department of Education, 2004c). Approximately 19% (92,224) were receiving speech-language services. With the variety of settings available, and the stringent requirements for a master's degree for full certification, the public school districts in Central Florida must sometimes fill positions with temporary, unqualified personnel or remain with vacant positions. In the 2002–2003 school year, 29 speech-language clinicians (0.8%) in Florida were out-of-field (Florida Department of Education, 2004d).

Central Florida school districts also enroll a large number of minority students. In Orange and Osceola County, the minority is the majority. In the 2003–2004 school year, Orange County's total minority population was 58.8%, and Osceola County had a minority population of 56.7%. (Florida Department of Education, 2003). Approximately 20% (18,272) of the students receiving speech-language services in Central Florida were from CLD backgrounds (Florida Department of Education, 2003).

Table 1. Response rate for 382 speech-language pathologists (SLPs) working in Central Florida's public schools.

<i>Small school districts</i>		<i>Medium school districts</i>			<i>Large school districts</i>					
<i>Sumter</i>		<i>Flagler</i>	<i>Citrus</i>	<i>Lake</i>	<i>Marion</i>	<i>Osceola</i>	<i>Volusia</i>	<i>Seminole</i>	<i>Orange</i>	<i>Brevard</i>
5 surveys (1.3%)		8 surveys (2.1%)	15 surveys (3.9%)	24 surveys (6.3%)	27 surveys (7.1%)	28 surveys (7.3%)	53 surveys (13.9%)	52 surveys (13.6%)	63 surveys (16.5%)	107 surveys (28.0%)

Table 2. Race/ethnicity of the 382 SLPs working in Central Florida’s public schools.

District	African American	American Indian	Asian	Hispanic	White	Multiracial	Other	Total
Brevard	2	0	0	4	98	2	1	107
Orange	4	0	0	5	50	3	1	63
Volusia	0	0	0	0	53	0	0	53
Seminole	1	1	0	2	46	2	0	52
Osceola	2	0	1	7	17	1	0	28
Marion	1	0	2	0	24	0	0	27
Lake	0	1	0	1	22	0	0	24
Citrus	0	0	0	0	15	0	0	15
Flagler	1	0	0	0	6	1	0	8
Sumter	0	0	0	0	5	0	0	5
Total	11(2.9%)	2(0.5%)	3(0.8%)	19(5.0%)	336(88%)	9(2.3%)	2(0.5%)	382

Participants had a mean age of 30 years or younger (28.5%). The second highest age group was 41–50 (28.0%), followed by 51 or older (22.0%) and 31–40 (21.2%). In this study, the mean age of 30 years or less is younger than ASHA’s self-reported mean age for SLPs of 45–54 (36.0%), with the next largest age category being 35–44 (30.7%) (ASHA, 2003b). In this study, of the 382 participating SLPs, the majority of SLPs (88.0%) were White, followed by Hispanic (5.0%), which is consistent with ASHA’s demographic findings. Of the 93,904 SLPs in the United States, the majority of SLPs (95.3%) were White, followed by 2.5% Hispanic (ASHA, 2003b). Table 2 provides a demographic profile by district of SLPs employed in the public school setting in Central Florida. Table 3 compares the ethnicity of ASHA-member SLPs nationwide versus the 382 SLPs from Central Florida who participated in this study. Nearly three fourths (74.3%) of the respondents had earned their master’s degree in communicative disorders, and slightly more than one half (50.8%) had their Florida State licensure. Of the 382 SLPs who were included as participants in this study, 359 were female (94%) and 20 were male (5.2%), which is consistent with ASHA’s (2003b) national findings that 362 were female (94.8%) and 20 were male (5.2%).

Fifty-three of the 382 respondents reported that they speak a language other than English (7 multilingual, 46 bilingual). The highest percentage (60.9%) of bilingual SLPs spoke Spanish, followed by American Sign Language (23.9%), French (6.5%), Farsi (2.2%), German (2.2%), Hindi (2.2%), and Japanese (2.2%). Table 4 provides the number of bilingual SLPs who were employed in the Central Florida public school setting at the time of this study compared to the

number of bilingual SLPs who were employed in Central Florida schools in 1998 (Rosa-Lugo et al., 1998).

Of the 382 participants, 284 (74.3%) had earned their master’s degree in communicative disorders. A total of 92 SLPs (24.1%) reported that the highest degree they held was a bachelor degree in communicative disorders. Of the 98 SLPs who did not have a master’s degree in communicative disorders, only 21 (5.5%) were currently enrolled in a graduate program in communicative disorders. The highest percentage of bachelor-level clinicians ($n = 26$, 6.8%) reported that they were “grandfathered in” (i.e., were allowed to continue working in the schools although they did not meet the requirements of highest qualified provider), followed by 24 (6.3%) who had not applied to a graduate program, 6 (1.6%) who were denied admission to a graduate program, and 2 (0.5%) who did not plan on applying.

Results revealed that 92 (24.1%) of the respondents were less than fully qualified and were hired on a 2-year temporary nonrenewable teacher certificate. The state board rule, known as the “2 year–5 year rule” (Rosa-Lugo et al., 1998), states that SLPs have 2 years to apply for admission into a graduate program and 5 years to complete a degree of study in communicative disorders. If they are not admitted to a graduate program in communicative disorders, they will not be able to maintain employment as an SLP in the public school setting. Therefore, almost one fourth (24.1%) of the workforce will be forced to leave their school if they are not admitted to a graduate program

Table 4. A comparison of bilingual SLPs in Central Florida: 1998 and 2004.

District	Rosa-Lugo et al., 1998		Edgar, 2004	
	Frequency	Percentage	Frequency	Percentage
Brevard	2	1.6	10	9.3
Orange	10	6.1	12	19.0
Volusia	0	0	5	9.4
Seminole	2	2.9	4	7.7
Osceola	3	8.3	9	32.1
Marion	2	14.3	7	26.0
Lake	0	0	4	16.7
Citrus	0	0	2	13.3
Flagler	0	0	0	0
Sumter	0	0	0	0
Total	19(of 535)	3.6	53(of 382)	13.9

Table 3. Comparison of race/ethnicity of ASHA-certified SLPs nationwide to Central Florida’s SLPs in the public schools.

Race/ethnicity	ASHA SLPs	Central FL SLPs
White	56.5%	88.0%
Hispanic or Latino	1.8%	5.0%
Multiracial	1.6%	2.3%
African American	1.4%	2.9%
Asian	0.8%	0.8%
American Indian or Alaska Native	0.3%	0.5%
Native Hawaiian	0.0%	0.0%
Other/Not Specified	37.6%	0.5%
Total	100.0%	100.0%

in communicative disorders within 2 years. This forced exodus will leave a significant vacuum in districts that are already experiencing challenges in retaining SLPs.

Survey Instrument

The survey instrument, a 43-item questionnaire, was developed by the first author (Edgar, 2003) based on current research findings of the working conditions of SLPs in public school settings (ASHA, 2000c, 2003a, 2004d), ASHA's "2000 School Survey" (2000d), and the guidelines suggested by Dillman (2000). The 43-item questionnaire consists of four parts:

- Part One: Features of Personal Work Environment contains 23 Likert-scale items ranging from strongly disfavor to strongly favor. For the purpose of this study, *strongly disfavor* indicates features that respondents are dissatisfied with or dislike and *strongly favor* indicates features that respondents are satisfied with or like.
- Part Two: Features Related to Professional Practice includes 14 multiple-choice questions.
- Part Three: Demographic Information consists of 4 multiple-choice questions.
- Part Four: Free Response Section contains 2 open-ended questions.

The survey instrument is located in the Appendix.

Procedures

The questionnaire was piloted in September 2003 on 40 respondents for reliability information and feedback on its design and content. Consistent and explicit instructions were provided to the participants to ensure quality control and consistency across districts. Reviewing the structure matrix on Statistical Package for Social Sciences, Version 10 (SPSS, 2000), three factors were identified, with several items loading high on each factor: factors related to school setting, factors related to professional practice, and factors related to working in the schools. The survey instruments were distributed by the first author at the beginning of each of the 10 district's monthly meetings. Next, they were collected and placed in a sealed envelope. To ensure that the answers were kept anonymous, they were only viewed by the first author.

Given the nature of the research questions in the survey, statistical applications consisted of descriptive analyses using SPSS Version 10 (SPSS, 2000). Frequencies and percentages were computed on the Likert-scale and multiple-choice questions to describe the sample, specifically through measures of central tendency. A cross-tabulation was performed to ascertain the relationship between the years that respondents were employed in the school setting and the years that respondents planned on remaining employed in the school setting. To determine what relationship exists between features identified in research questions 1 and 2 and longevity and retention, analyses of variance (ANOVAs) were performed.

Effect sizes were computed using the eta-squared (η^2) coefficient. As recommended by Cohen (1988), the resulting effect sizes were interpreted as follows: small = 0.0–0.2, medium = 0.3–0.5, and large = 0.6–0.8. The descriptive labels of small, medium, and large indicate the degree to which group membership can account for the findings (Nippold, Ward-Lonerger, & Fanning, 2005).

RESULTS

To ascertain the perception of SLPs working in the public school setting, the participants were asked to rate features of the work environment using a Likert scale. The possible responses ranged from *strongly favor* to *strongly disfavor*. Participants were also presented with multiple-choice questions and were asked to rate their satisfaction of features, with responses ranging from *mostly satisfied* to *mostly dissatisfied* (see the Appendix). The top five positive features provided by the participants were working with children ($n = 286$, 74.9%), school schedule ($n = 205$, 53.7%), school hours ($n = 170$, 44.5%), school assignment(s) ($n = 155$, 40.6%), and availability of an experienced mentor ($n = 156$, 40.8%).

In the free response section, the SLPs were asked to respond to the question, "What three things do you like most about your work environment?" The top five most recurrent positive themes in the free response section were working with children (58.6%), collaboration (58.4%), school setting (32.5%), school schedule (22.5%), and administration (14.7%).

Of the 382 SLPs who responded, 155 (40.6%) indicated that they favored their school assignment(s), with 271 (70.9%) respondents assigned to one school, 69 (18.1%) assigned to two schools, 22 (5.8%) assigned to three schools, and 16 (4.2%) assigned to four or more schools during the 2003–2004 school year.

The data indicated that 156 (40.8%) of the SLPs favored the availability of an experienced mentor in their personal working environment. A follow-up multiple-choice question indicated that 278 (72.8%) of the SLPs had/have an SLP mentor, and 100 (26.2%) SLPs did not have an assigned mentor. Although 278 (72.8%) SLPs reported having a mentor, 317 (83%) indicated that they had not received any training on supervision.

Workload was strongly disfavored by 169 (44.2%) respondents. Workload was defined in the question as "IEPs, paperwork, meetings, etc." When asked to specifically indicate how many hours per week they spent on paperwork, 156 respondents (40.8%) reported spending 4–6 hr a week, 94 (24.6%) more than 10 hr a week, 87 (22.8%) 7–9 hr a week, 40 (10.5%) 1–3 hr a week, and 2 respondents (0.5%) reported less than an hour to complete paperwork each week.

Three additional features were strongly disfavored by SLPs: misunderstanding the role of the SLP ($n = 157$; 41.1%), salary ($n = 153$; 40.1%), and caseload ($n = 132$; 34.6%).

The overwhelming majority ($n = 295$, 77.3%) of participants in the school setting were dissatisfied with their salary. Only 27 (7.1%) reported that they were mostly satisfied with their current salary. When asked about the approximate number of students they had on their caseload, two responses were typically provided: 41–60 students and 61–80 students ($n = 117$; 30.6%). The next highest response was 81–100 students ($n = 57$; 14.9%). Of the remaining SLPs, 39 (10.2%) reported that they had 21–40 students on their caseload; 22 (5.8%) had more than 100; 19 (5.0%) had between 10–20 students, and only 8 (2.1%) had less than 10 students. Complete data in order of district size are presented in Table 5.

Data from the quantitative responses concur with the descriptive analysis of the free response section of the questionnaire. In response to the follow-up question, "What three things do you like least about your work environment?" the top five recurrent themes were paperwork (42.1%), caseload (31.2%), school setting (26.7%), salary (24.1%), and misunderstanding of the SLP's role (18.3%).

Table 5. Caseload of 382 SLPs in Central Florida’s public schools.

District	<10	10–20	21–40	41–60	61–80	81–100	>100	DNR	Total
Brevard	3	11	12	60	21	0	0	0	107
Orange	1	1	10	17	30	3	0	1	63
Volusia	0	0	4	22	22	5	0	0	53
Seminole	3	6	7	3	14	15	3	1	52
Osceola	1	0	0	3	6	12	5	1	28
Marion	0	0	5	7	9	5	1	0	27
Lake	0	0	0	2	6	9	7	0	24
Citrus	0	1	0	0	4	7	3	0	15
Flagler	0	0	1	3	1	1	2	0	8
Sumter	0	0	0	0	4	0	1	0	5
Total	8	19	39	117	117	57	22	3	382

Note. DNR = did not respond.

In response to the question regarding how long the respondents have been employed in the public school setting, 100 respondents (26.2%) reported that they have worked in public schools for 3 years or less, followed by 85 (22.3%) respondents who have been employed in the public schools for only 4–7 years.

When asked how many years they planned on remaining employed in the public school setting, 94 (24.6%) SLPs replied 4–7 years, 91 (23.8%) responded 8–11 years, and only 32 (8.4%) reported that they anticipated remaining in their current position for more than 20 years.

A cross-tabulation was performed to ascertain the relationship between the number of years that SLPs worked in the school setting (longevity) and the number of years that SLPs plan on remaining employed (retention) in the school setting (see Table 6). The 94 (52%) respondents who have been working in the schools for 7 years or less indicated that they anticipate remaining 7 years or less. More than half ($n = 119, 61\%$) of those who have worked in the school for more than 8 years plan on staying for more than 8 years. Results suggest that if SLPs stay in their jobs past the first few years when turnover and burnout are highest, then they are more likely to remain in the public school setting.

To determine what, if any, interaction exists between longevity and retention in the school setting to the positive features discovered in research question 1, an ANOVA was performed at a .05 significance level. Results indicate that there was a statistically significant interaction and a small effect size between school hours and longevity, $F(4, 382) = 4.89, p = .005, \eta^2 = .055$. There was also a statistically significant interaction and a small effect size between having a mentor to retention in the school setting, $F(4, 382) = 3.13, p = .015, \eta^2 = .036$. There was a statistically significant interaction and small effect sizes between retention and four of the five positive features: hours, $F(4, 382) = 5.99, p = .000, \eta^2 = .066$; school schedule, $F(4, 382) = 4.46, p = .002, \eta^2 = .050$; children, $F(4, 382) = 3.91, p = .004, \eta^2 = .044$; and assignment, $F(4, 382) = 2.86, p = .024, \eta^2 = .033$. There was also a small but significant interaction and a small effect size between hours and the interaction of longevity and retention in the school setting, $F(15, 382) = 2.09, p = .010, \eta^2 = .085$. Results of the data suggest that school hours, having a mentor, working with children, school schedule, and school assignment all have a positive impact on retention (Table 7).

To determine what, if any, interaction exists between longevity and retention in the school setting with the issues identified in research

Table 6. Cross-tabulation of 382 SLPs in Central Florida’s public schools: Longevity and retention.

How long stay:	<3 years	4–7	8–11	12–20	>20	Total
How long worked:						
<3 years	25	29	14	17	11	96
4–7 years	24	16	14	19	11	84
8–11 years	12	12	11	17	6	58
12–20 years	6	14	22	21	4	67
>20 years	10	23	29	9	0	71
Total	77	94	90	83	32	376 ^a

^a6 participants did not respond.

question 2, an ANOVA was performed at the .05 confidence level. Results indicate that there was a statistically significant interaction and a small effect size between longevity in the school setting and dissatisfaction with salary, $F(4, 382) = 3.99, p = .004, \eta^2 = .045$, and workload, $F(4, 382) = 2.67, p = .032, \eta^2 = .030$. There was also a statistically significant interaction and a small effect size between retention in the school setting and workload, $F(4, 382) = 3.00, p = .019, \eta^2 = .034$. Interestingly, there was a small but significant interaction and a small effect size between longevity and retention in the school setting and dissatisfaction with salary, $F(15, 382) = 1.80, p = .033, \eta^2 = .073$. Results of the data revealed that of the top four negative features in the work environment reported in research question 2, dissatisfaction with salary and workload have the most impact on longevity and retention in the public school setting (Table 8).

DISCUSSION

This study sought to explore the work environment of SLPs who are employed in the public school setting. Five positive features were identified in this study with regard to working in the public school setting. SLPs indicated that working with children, school schedule, school hours, school assignment, and the availability of an experienced mentor were positive factors in working in the public school setting.

The four main features of the work environment that were reported to be areas of major dissatisfaction in the public school setting include overwhelming workload, misunderstanding of the role of the school-based SLP, dissatisfaction with salary, and large caseloads. The four main issues found in this study correspond with ASHA’s (2004d) national findings of the four highest ranked challenges in the school setting: workload activities (paperwork, time, planning, and collaboration), caseload, others understanding SLP role, and salary.

Analysis of the data revealed that the positive features of school hours, school schedule, working with children, and school assignment have a significant interaction with longevity and retention of SLPs in the school setting. In addition, the negative features of salary and workload also have a significant interaction with longevity and retention in the public school setting.

The respondents in this study noted that caseload was a major source of concern. These findings are consistent with the national results obtained on ASHA’s “2004 Schools Survey” (2004d). More than half of the SLPs (59.7%) expressed concern about unmanageable

Table 7. ANOVA between longevity and retention of 382 SLPs in Central Florida’s public schools and positive features reported.

Source	Dependent variable	Type III Sum of Sq.	df	Mean square	F	Sig.	η^2
Longevity	hours	14.0	4	3.5	4.89	.001	.055
	children	1.5	4	0.4	1.46	.214	.017
	schedule	1.9	4	0.5	0.76	.554	.009
	assignment	5.9	4	1.5	1.42	.228	.016
	mentor	11.9	4	2.9	3.13	.015	.036
Retention	hours	17.2	4	4.3	5.99	.000	.066
	children	3.9	4	0.9	3.91	.004	.044
	schedule	11.4	4	2.9	4.46	.002	.050
	assignment	11.9	4	2.9	2.86	.024	.033
	mentor	4.1	4	1.0	1.06	.375	.012
Long. * Ret.	hours	22.5	15	1.5	2.09	.010	.085
	children	3.8	15	0.3	1.00	.452	.042
	schedule	12.1	15	0.8	1.23	.222	.053
	assignment	18.5	15	1.2	1.19	.280	.050
	mentor	14.7	15	0.9	1.03	.428	.043

caseloads in the public school setting (ASHA, 2004c). ASHA reported that the average (median) monthly caseload of school-based ASHA-certified SLPs is 50, ranging from 20 to 53 (ASHA, 2004d). The state of Florida reported a median of 64, with a range from 38 to 90. This study’s findings are consistent with ASHA’s, with the majority of respondents ($n = 234$, 61.2%) having between 41–80 students, which is well above the national average of 50. This aspect of the work environment has been an area of concern and should be examined as a possible contributing factor hindering recruitment and retention of SLPs in the public school setting.

Results of this study indicate that 157 (57.9%) respondents felt that other professionals did not understand the role of the SLP. Studies (Sanger, Hux, & Griess, 1995; Tomes & Sanger, 1986; Westby, 1990) focusing on the role of the SLP by other professionals have noted concerns about the role of the SLP with certain student groups (i.e., English language learners, students with voice disorders) and the adequacy of their training in specific areas (i.e., behavior management [Gidden, 1991], reading [Schory, 1990], and collaboration [Secord & Wiig, 1991]).

Overall, in Central Florida public schools, the salary schedule for SLPs is the same as it is for teachers: It is based on degrees held. Therefore, approximately 25% of the SLPs in Central Florida who

reported that they do not have their master’s degree or their certificate of clinical competence (CCC) earn almost \$20,000 less than the national average for SLPs in private settings and \$14,000 less than school-based SLPs nationwide. Furthermore, 75% of SLPs with a master’s degree in this study earn \$10,000 less than their colleagues in the private settings and \$3,000 less than school-based SLPs nationwide (ASHA 2004d). ASHA (2000d) reported that 37.0% of SLPs in the public school setting nationwide were dissatisfied with their current salary. The median calendar-year salary for school-based SLPs lagged behind that of SLPs in other settings by almost \$7,000 (ASHA, 2004d). In Florida, the median salary in 2003 for school-based SLPs with a master’s degree in communicative disorders was \$42,000 (\$11,350 less than the national average). For SLPs employed in other settings in Florida with a master’s degree and their CCC, the median salary was \$54,500 (\$1,150 more than the national average).

Findings of this study indicated that there are more uncertified SLPs in Central Florida’s public schools today than there were in the state of Florida in 2001 (25.7% vs. 12.0%). The increased use of less-than-qualified personnel has a tremendous impact on appropriate service delivery to children, and it presents a challenge to public school administrators in recruitment and retention.

Table 8. ANOVA between longevity and retention of 382 SLPs in Central Florida’s public schools and issues reported.

Source	Dependent variable	Type III Sum of Sq.	df	Mean square	F	Sig.	η^2
Longevity	caseload	2.5	4	0.6	0.43	.788	.005
	workload	7.3	4	1.8	2.67	.032	.030
	role	4.1	4	1.0	0.91	.459	.011
	salary	14.3	4	3.6	3.99	.004	.045
Retention	caseload	6.3	4	1.6	1.11	.353	.013
	workload	8.2	4	2.1	3.00	.019	.034
	role	4.8	4	1.2	1.06	.375	.012
	salary	6.1	4	1.5	1.69	.151	.019
Long. * Ret.	caseload	11.7	15	0.8	0.55	.910	.024
	workload	13.6	15	0.9	1.32	.190	.055
	role	10.9	15	0.7	0.65	.837	.028
	salary	24.2	15	1.6	1.80	.033	.073

ASHA has recognized the importance of supervision by specifying certain aspects of supervision in its requirements for the CCC and the clinical fellowship year (CFY) (ASHA, 2004b). In particular, supervisors/mentors are expected to implement the 13 tasks of supervisors and exhibit the underlying competences as described in the ASHA position statement on supervisors (ASHA, 1985). Several avenues have been proposed to develop supervisors/mentors, including advanced coursework (Anderson & Shannon, 1988; Anderson, 1988; Dowling, 1993, 1994; Strike-Rousson, 1988), involvement in supervisory research (Dowling, 2001; Grossman, 1998), practicums (Anderson, 1981; Brasseur, 1989), career ladder programs, workshops and in-service training (Barrow & Domingo, 1997; Hagler & McFarlane, 1998), and professional growth opportunities (Goldberg, 1995; Heid, 1997; Kamhi, 1995).

A majority of participants in the present study ($n = 317$; 83.0%) reported that they have not received any training in the area of supervision/mentoring. Supervision is critical in those school settings where many bachelor-level clinicians are employed. Mentors must have the knowledge and clinical competency to serve as clinical fellowship supervisors for those clinicians who are required to complete their CFY (ASHA, 2004c). Schetz and Billingsley (1992), in their review of SLPs' perceptions of administrative support, noted that staff who are supported experience less stress and higher levels of job satisfaction and commitment. Given the number of SLPs who are employed in the public school setting who are less than fully certified (25.7%), and those who are enrolled in a graduate program that will require supervision to complete their CFY (7.1%), immediate consideration should be given to facilitating the professional development of supervisory competencies in SLPs.

When establishing a program for mentors, four major tasks are necessary: (a) selecting and training individuals to serve as mentors, (b) matching mentors with protégés, (c) setting goals and expectations, and (d) establishing solid mentor programs. The mentoring program should be founded on well-developed infrastructures using sound supervisory models containing the elements that are essential to responsible mentoring (Anderson & Shannon, 1988; Cogan, 1973, 1976; Costa, 1994, Costa & Gamston, 1994; Crago & Pickering, 1987; Farmer & Farmer, 1989; Pickering, 1987). For example, in this study, the Orange County School District has demonstrated a commitment to the professional development of supervisors/mentors and the development of public school clinicians through the development of a "formal mentoring program." Five master's-level SLPs, paid on an administrative line, serve as mentors/supervisors to novice public school clinicians. The importance of a caring, knowledgeable mentor to a beginning SLP cannot be overemphasized. Therefore, it is important that solid mentoring programs be developed and implemented to advance the professional development of mentors/supervisors in the public school setting.

STUDY LIMITATIONS

A major limitation of this study was the limited sampling of a specific population of SLPs employed in 10 diverse school districts in the Central Florida area. Although SLPs employed outside of this area were not included in the present study, the information obtained from this study contributes to the literature and serves as an impetus for further exploration of the working environment of the school-based SLP. Data need to be collected from other areas of Florida as well as on a national level, in states that have experienced

net gains in populations with diverse growth patterns, to reflect the perspectives of larger populations of SLPs of diverse backgrounds working in similarly diverse public school settings.

Job satisfaction and the identification of specific factors that might contribute to the recruitment and retention of school-based SLPs continue to be areas for further research. Given the estimated growth in the profession predicted by the U.S. Department of Labor (2001), the profession of speech-language pathology is expected to have 57,000 total job openings in 2010 as a result of growth and net replacements. Future research should sample a larger number of SLPs from a variety of states to determine if the features that were identified in this study are applicable to the working environment of other public school SLPs throughout the United States.

It is recommended that a similar study be conducted on a national basis using an online questionnaire to obtain the perspectives of school-based SLPs regarding their work environment. Follow-up interviews can be conducted via email or phone to allow for an in-depth qualitative analysis.

Another limitation was the limited use and analysis of open-ended questions. Although open-ended questions were used in this study to obtain further information on the perspective of SLPs on their working environment, a more in-depth analysis is necessary to lend content validity to specific questions posed in the questionnaire. A more in-depth qualitative research study is recommended to examine the working conditions of SLPs and provide qualitative data.

CLINICAL IMPLICATIONS

Information presented in this study strengthens the need for continuing research on those features in the work environment that can facilitate the recruitment and retention of SLPs in the public school setting. There are several clinical implications gleaned from this study.

There is a continued need to provide staff development to SLPs in the area of supervision. Avenues to provide leadership opportunities for SLPs are critical in developing the next generation of leaders in the discipline. Mentors continue to be necessary to provide guidance to the 25% bachelor-level clinicians who require ongoing supervision and the 75% master's-level clinicians who require mentoring during their CFY.

Salary discrepancy has been and continues to be an area of contention in the recruitment and retention of SLPs in public schools throughout the nation (Boswell & Crowe, 2005). Salaries of SLPs should be commensurate with their advanced training and degree/licensure. For example, the CCC, which is obtained after the SLP completes his or her CFY, should be a factor that is considered in creating salary differentials for school-based SLPs.

Changes in demographic trends as well as reforms in health care and education have encouraged SLPs to reflect on their approaches to service delivery and to expand the service delivery options they offer (Blosser & Kratoski, 1997). Leaders in our profession have continually questioned the effectiveness of current practices and approaches in the manner in which students with communication disorders are served in the public school setting (Moore-Brown & Montgomery, 2001; Sanger et. al, 1995; Ukrainetz & Fresquez, 2003; Wiig, Secord, & Wiig, 1990). Despite the significant changes taking place in education and health care settings, the development and adoption of alternative models for providing appropriate services has not been fully implemented or greatly expanded (Logemann, 1994).

Changes in the way service is delivered to children with communication disorders are necessary. Conducting a workload analysis, as suggested by ASHA, can provide the impetus for adopting alternative models and continuing to provide appropriate services to children with communication disorders.

There continues to be a need for incentive programs to assist in preparing a knowledgeable and skilled workforce. Incentive programs such as tuition assistance, continuing education reimbursement, and compensation for ASHA certification and licensure could be used as strategies to recruit SLPs. For example, these strategies can assist individuals from CLD backgrounds to earn their master's degree and/or obtain professional licensure. One comment repeatedly noted in the present study was that many clinicians (e.g., 50% of SLPs) chose not to pursue licensure due to the expense of obtaining and maintaining it. Florida licensure was a cost that they simply could not afford.

Partnerships between public school districts, community agencies, and universities across the United States need to be developed in order to increase the numbers of highly qualified providers. The Central Florida Speech-Language Consortium, consisting of 10 school districts and the University of Central Florida, is an example of an initiative that addresses the critical shortage of SLPs in public schools (Rosa-Lugo et al., 1998). This partnership tailored a graduate cohort program for those SLPs employed in one of the ten school districts in the Central Florida area to address the critical shortage of school-based SLPs. An important consideration in creating these partnerships is to require SLPs who are admitted in the cohort graduate program to commit years of service to the public school setting for every year that they are supported in the graduate program. This initiative could address retention as well as support those students who are committed to working in the public school setting.

In order for successful collaboration to take place between SLPs and public school staff/administration, it is essential that the role of the SLP in the public school setting is clearly articulated. Information must be provided to administrators, other professionals, staff, and parents in the public school setting to decrease the confusion that exists about the role of the school-based SLP. This understanding can be facilitated by allowing SLPs to be active decision makers and participants in promoting their role and responsibilities to other professionals and staff members.

Finally, the critical shortage of SLPs and retention of these professionals in the public school setting continues to pose a challenge. The perspectives shared in this study by a specific group of SLPs in Florida can be used to identify some of the ways in which schools and school-based SLPs can work collaboratively to create a positive work environment. Further research is necessary to provide our profession with the best ways of creating a work environment that will facilitate the successful recruitment and retention of SLPs in the public school setting. By implementing these changes, school-based SLPs will be empowered to truly make a difference in the lives of children.

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APPENDIX. SURVEY INSTRUMENT

The Work Environment of Speech-Language Pathologists in Central Florida's Public Schools
By: Debra Edgar, MA, CCC-SLP

PART ONE: For items 1–23, please indicate the extent to which you favor or disfavor the following features of your personal work environment with 5 being strongly favor and 1 being strongly disfavor.

START HERE

To what degree do you favor or disfavor the following features of your personal work environment?	Strongly Disfavor	Disfavor	Neither Favor nor Disfavor	Favor	Strongly Favor
1. School Hours	1	2	3	4	5
2. Working with children	1	2	3	4	5
3. Benefits (e.g. health insurance, retirement, etc)	1	2	3	4	5
4. Schedule (e.g. 10 month contract)	1	2	3	4	5
5. Educational Setting	1	2	3	4	5
6. Professional Advancement	1	2	3	4	5
7. Caseload (e.g. # of students)	1	2	3	4	5
8. Workload (e.g. IEPs, paperwork, meetings)	1	2	3	4	5
9. Parental involvement and support	1	2	3	4	5
10. Salary	1	2	3	4	5
11. Others' understanding my role	1	2	3	4	5
12. Work space and facilities	1	2	3	4	5
13. Availability of materials and assessment tools	1	2	3	4	5
14. Administrative support	1	2	3	4	5
15. Access to technology	1	2	3	4	5
16. Training for special populations (e.g. autism, cleft palate)	1	2	3	4	5
17. Communicating with English Language Learners (ELL)	1	2	3	4	5
18. Serving English Language Learners (e.g. treatment)	1	2	3	4	5
19. Variety of daily tasks (e.g. treatment, meetings)	1	2	3	4	5
20. Collaboration with other professionals in my school	1	2	3	4	5
21. School Assignment(s)	1	2	3	4	5
22. Professional Development (e.g. workshops, conferences)	1	2	3	4	5
23. Availability of an experienced SLP mentor	1	2	3	4	5

PART TWO: For items 24–37, please choose only one answer for each question by marking an X in the box.

24. What is the approximate number of students you have on your caseload?

- Less than 10 students
- 10–20 students
- 21–40 students
- 41–60 students
- 61–80 students
- 81–100 students
- More than 100 students

25. On average, how many hours per week do you spend on paperwork?

- Less than 1 hour/week
- 1–3 hours/week
- 4–6 hours/week
- 7–9 hours/week
- More than 10 hours/week

26. **Do/Did you have a Speech Language Pathologist (SLP) mentor/supervisor?**
 Yes
 No
27. **Did you have any college training/courses on supervision (e.g. becoming a SLP supervisor)?**
 Yes
 No
28. **What is the number of schools to which you are assigned this school year?**
 1 School
 2 Schools
 3 Schools
 4 or more schools
29. **How many years have you been a Speech Language Pathologist in the public school setting?**
 3 years or fewer
 4–7 years
 8–11 years
 12–20 years
 More than 20 years
30. **How many years do you anticipate remaining in your current position in the public schools?**
 3 years or fewer
 4–7 years
 8–11 years
 12–20 years
 More than 20 years
31. **How satisfied are you with your current salary in the public schools?**
 Mostly satisfied
 Mostly dissatisfied
32. **What academic degree do you currently hold?**
 Bachelor's Degree in Communicative Disorders
 Master's Degree in Communicative Disorders (Skip to question 34)
 Other - Please specify: _____
33. **Which of the following best describes why you currently do NOT have a Master's degree in Communicative Disorders?**
 I am currently enrolled in a graduate program in Communicative Disorders
 I have applied and been accepted but am not enrolled in any classes
 I have not yet applied to a graduate program in Communicative Disorders
 I have applied but have not received a decision from the graduate program
 I have applied but was denied admittance
 I do not plan on applying to a graduate program/continuing my education
 I have been "grandfathered" in and am not required to have a Master's Degree
 I am employed in a "sparsity" district and have a 3 yr temporary certificate
34. **Do you hold Florida state licensure in speech language pathology?**
 Yes
 No
35. **Do you provide services (e.g. are you employed) as a contracted SLP?**
 Yes
 No
36. **To what extent do you favor or oppose the use of assistants with a 2-year degree from a community college in communicative disorders to assist speech therapists in the schools?**
 Strongly favor
 Somewhat favor
 Neither favor nor oppose
 Somewhat oppose
 Strongly oppose
37. **In what county/district are you currently employed?**
 Brevard Citrus Flagler Lake Marion
 Orange Osceola Seminole Sumter Volusia

PART THREE: Demographic Information
(This information will help us understand how Central Florida is meeting the needs of students from Culturally and Linguistically Diverse backgrounds)

38. What is your ethnic/racial background?
 White
 Multiracial
 Other — Please specify: _____
39. Do you speak a language(s) other than English?
 Yes (If so, what language(s) _____)
 No
40. Which of the following age categories describes you?
 30 or younger
 31–40
 41–50
 51 or older
41. What is your gender?
 Female
 Male

PART FOUR: Free Response Section

42. What three things do you like most about your work environment?
1)
2)
3)
43. What three things do you like least about your work environment?
1)
2)
3)

Thank you for taking time to complete this questionnaire. Your assistance is greatly appreciated and will contribute to the body of research regarding Speech-Language Pathologists in the public school setting.
