

# Retention of School-Based SLPs: Relationships Among Caseload Size, Workload Satisfaction, Job Satisfaction, and Best Practice

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## Abstract

Nationally, the shortage of speech-language pathologists (SLPs) in the schools is growing. As such, it is important to understand factors related to the retention of SLPs in this setting. This study expanded on previous research by examining a wider range of factors that may be related to the retention of SLPs including caseload size, workload satisfaction, job satisfaction, and time available to conduct best practice. Participants were 75 full-time SLPs working in a school setting in the state of Vermont who completed a survey designed to solicit information concerning the variables of interest. Several dimensions of job satisfaction and best practice predicted retention, caseload, and especially workload. The results also suggested that high workloads complicate the implementation of best practice and have implications for retention. Limitations of the research and implications for practice are discussed.

## Keywords

speech-language pathologist, retention, caseload, workload, job satisfaction

A current and ongoing challenge in speech-language pathology is the shortage of qualified clinicians to serve school-aged children. Many children with speech and language needs are not receiving services or are being served by underqualified personnel (Edgar & Rosa-Lugo, 2007). In every state, vacancies remain unfilled despite extensive searches and recruitment efforts by school administrators (Office of Special Education Programs, 2002). To address this problem, it is important to understand the factors related to the shortage of speech-language pathologists (SLPs) in schools. Previously, retention and caseload have been identified as potential influencing factors, but there is limited research exploring the links between retention and job satisfaction (Randolph, Doisy, & Doisy, 2005) and between job satisfaction and caseload and workload (Blood, Ride-nour, Thomas, Qualls, & Hammer, 2002; Edgar & Rosa-Lugo, 2007). Moreover, no previous research has examined these factors collectively and none has considered these in conjunction with important aspects of best practice. The purpose of this study is to investigate these relationships using a statewide survey in Vermont.

## SLP Shortages

Addressing school SLP shortages is a top priority of the American Speech-Language-Hearing Association (ASHA).

A report of projected SLP shortages (ASHA, 2004c), on national and state levels, indicated that the demand for SLPs in the United States is growing at a much faster rate than the number of qualified SLPs. The U.S. Department of Labor's (2004) Bureau of Labor Statistics ranked speech-language pathology 12th among the largest growing occupations that require a master's or doctoral degree. It was estimated that between 2002 and 2012, the profession would grow by 27%, creating nearly 26,000 new jobs nationally. Factoring in retirements and those professionals choosing to leave the field, the estimate grows to approximately 49,000 positions by 2012.

The state of Vermont, where this research takes place, is no exception to these shortages. In 2007, the Vermont Speech-Language Hearing Association (VSHA) surveyed special education directors in 61 school districts across Vermont. They found that 12% of Vermont school districts do not have a full-time SLP and that 46% of the school districts

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had unfilled SLP positions, many remaining open for more than 4 months. Of those unfilled positions, one third have remained open for longer than 4 months, and 17% have remained unfilled for more than a year. Questions remain concerning the likely reasons for unfilled positions, but caseload size and the work associated with it are likely to be influencing factors.

### *Caseload and Workload*

The terms *caseload* and *workload* have often been used interchangeably in the literature, however, they are more accurately understood as related but distinct. Caseload most appropriately refers to the number of different students that the SLP is serving at a given time. Workload, however, refers to time spent in “direct service to students, indirect activities that support students in the least restrictive environment and general education curriculum, indirect services that support the student’s educational programs, and activities that support compliance with federal, state and local mandates” (ASHA, 2002a, p. 409).

ASHA (2005) reported that 62% of SLPs identified caseload size as an important factor in determining where they would seek employment, and it has been related to job dissatisfaction among SLPs (Edgar & Rosa-Lugo, 2007). ASHA has long acknowledged the need for reform in caseload policies. In 1993, ASHA recommended a maximum of 40 students per caseload, although this did little to stop the growth of caseloads across the country with many school districts interpreting these maximums as minimums (ASHA, 2002a). The national average to date is 52 students per caseload, with some districts reporting caseloads as high as 100 (ASHA, 2002a).

To examine caseload size and its effects on practice, Dowden et al. (2006) surveyed 464 SLPs providing services in the Washington State Public School system. They found that the mean caseload size was 59 (range = 53–75) students. These caseload sizes were rarely determined by either ASHA guidelines or state regulations. Rather, they were most frequently determined by the number of individuals with speech-language pathology needs as determined by the SLP, the SLP supervisor, or the Individualized Education Program (IEP) team. The majority of participants (60%) reported that caseload sizes had no limits and there was no significant difference between the caseload sizes of less and more experienced clinicians. Dowden and colleagues also found that the size of the caseload was associated with the service delivery model that the clinician chose. Those SLPs with larger caseloads had more students seen by speech-language pathology assistants (SLPAs), more group sessions, and fewer one-on-one sessions. Dowden et al. suggested that the findings for their Washington State sample were not isolated but cited the need for

further research in this area in a less populous state with smaller caseloads to determine whether clinicians are able to manage caseloads and workloads more efficiently. One goal of this study was to respond to this need.

In addition to large caseloads, clinicians are faced with having increasing workloads, which involve responsibilities outside of direct service. SLPs working in schools must juggle paperwork, IEP meetings, evaluations, consultations, direct and indirect intervention services, case management, and many other administrative tasks. When combined, these duties appear to be leaving SLPs with little time to provide the quantity and quality of services to which students are entitled. To address this problem, ASHA (2002a) issued an official statement recommending that school districts begin to structure a clinician’s caseload not by the number of students but by taking into account all factors making up the SLPs’ entire workload. Thus, ASHA has acknowledged the importance of movement toward a workload model for ensuring that students receive the services they need “instead of the services SLPs have time to offer or services based on administrative convenience” (ASHA, 2002a). The current demands for SLPs in the schools certainly warrant a discussion about the effect of workload on job satisfaction, as this has implications for retention.

### *Job Satisfaction*

Across professions, job satisfaction is strongly and inversely correlated with burnout and turnover (Begley & Czajka, 1993; Chiu, 2000; Cordes & Dougherty, 1993). With the increased identification of children with speech and language needs and larger workloads, school-based SLPs are experiencing greater time demands and expanding responsibilities, making them especially vulnerable to burnout and job dissatisfaction (Wisniewski & Gargiulo, 1997). Edgar and Rosa-Lugo (2007) explored specific dimensions of job satisfaction among SLPs and determined that four main features of the public school setting were reported as highly dissatisfactory. These were overwhelming workload, misunderstanding of the role of the school-based SLP, salary, and large caseloads. The authors also point out that these issues correspond with ASHA’s (2004a) national findings of the four highest ranked challenges in the school setting.

In light of the importance of job satisfaction in the retention of school-based SLPs, it is surprising how little research has been conducted in this area. In efforts to better understand job satisfaction among SLPs, Blood et al. (2002) conducted a national survey of 1,207 full-time SLPs working in public schools. Results indicated that job satisfaction was negatively correlated with caseload size (workload was not examined), and although most (about 75%) SLPs reported satisfaction or high satisfaction with their job, one quarter were dissatisfied in their position and considered leaving.

Similarly, Randolph et al. (2005) found that the strongest predictors of job satisfaction among allied health professions (which included a subset of SLPs) were its inverse relations to caseload and workload. Although it stands to reason that these factors would be related to retention of SLPs in particular, further research is needed to address this question more specifically.

In summary, caseload and workload appear to be inversely related to job satisfaction, which may complicate retention efforts. In addition, caseload and workload appear to affect the type of services provided by school-based SLPs. What has not been addressed is whether caseload and workload may influence the conduct of what is considered best practice in the field.

### Best Practice

The term *best practice* is used in many different fields including speech-language pathology, but its meaning and scope have not been clearly articulated in this field. In this study, best practice has been identified as evidence-based, culturally competent, and family-centered care that may adopt particular models of service delivery depending on perceived efficacy for addressing the needs of the individual client. Each of these is described briefly below.

**Evidence-based practice.** Evidence-based practice may be defined as practice that makes use of the best possible scientific research, uses clinical expertise, and considers the feelings and priorities of the clients and their families (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). Most research in this area has focused on whether evidence-based practice is being conducted in schools with the aim of identifying professionals' attitudes about and barriers to accessing and evaluating scientific research. Using this approach, research has demonstrated that a majority of SLPs do not conduct evidence-based practice, although precise estimates vary. For example, Vallino-Napoli and Reilly (2004) found that 37% of clinicians indicated that they accessed journals for daily patient care. Similarly, Zipoli and Kennedy (2005) reported that only 17.7% of SLPs surveyed accessed research in the past 6 months. A significant barrier to conducting evidence-based practice according to these studies involves lack of time. This is predictable in light of the previous discussion about caseloads and workloads, which have grown appreciably over the past few decades.

**Cultural competence.** Cultural competence as it is related to allied health professions has been defined as understanding "the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs" (Betancourt, Green, Carrillo, & Owusu, 2003, p. 294). One index of cultural diversity involves the number

of multilingual and multicultural students in schools in the United States, which is steadily increasing. In 2003, the percentage of students who spoke a language other than English at home was 40% (National Center for Education Statistics, 2005). Although estimates vary by geographical region, SLPs in the school system are being asked to assess and serve an increasing number of students from culturally diverse groups (Kritikos, 2003).

In a study of 811 SLPs working in schools, Kritikos (2003) found that 72% of SLPs reported that they were "not competent" or only "somewhat competent" to assess students who spoke a language other than English. When asked what the most significant barriers were to assessing bilingual students, 32% responded that they lacked knowledge of the student's culture. These findings are similar to those of Caesar and Kohler (2007), who surveyed 409 SLPs and found that only 28% of SLPs agreed that their graduate education had provided them with sufficient knowledge about assessment and treatment of multicultural students. The SLPs surveyed in these two studies also agreed on possible solutions to the problem by indicating that they needed further training in this area. Caesar and Kohler (2007) argued that to solve this problem, SLPs must take it upon themselves to further their education to best assess and serve multicultural students. However, the previously described heavy SLP caseloads and workloads likely limit the time available to seek out education in the area of cultural differences, which may affect SLPs' overall sense of cultural competency and have implications for retention.

**Family-centered care.** Family-centered care emphasizes a partnership between the family and the service provider (Law et al., 2003). From this perspective, families are considered experts on the child's strengths and challenges and are valuable partners who should be involved in every aspect of their child's services including the child's assessment and treatment. Indeed, family-centered services often lead to better outcomes for students (Beatson, 2005), and families are more satisfied with their child's services if they feel that they are equal partners in both treatment and assessment (Summers, Hoffman, Marquis, Turnbull, & Poston, 2005).

Although professionals agree that this partnership is important, there is often a gap between ideal family-centered services and actual practice. Crais, Roy, and Free (2006) surveyed 192 parents and SLPs and found 81% agreement between parents and professionals as to what constitutes ideal family-centered practice. However, SLPs also reported that the majority of these practices did not take place consistently and that 5 of the 40 ideal practices identified (e.g., having the family complete an assessment tool or checklist, giving the family an opportunity to meet with the entire team before assessment) occurred less than 10% of the time. It is crucial that the authors reported that

the top factor affecting implementation of family-centered services was time.

**Service delivery models.** Although there are many options in terms of service delivery models and several variables that contribute to the appropriateness of these models including setting, people and roles, and schedules (Nelson, 2007), there is little research that supports the idea that one service delivery model is best despite anecdotal claims in the field. Choosing group versus individual sessions is an example of one area of service delivery where research is conflicted and therefore inconclusive. Large-scale studies conducted by ASHA (2002a, 2002b) suggest that group sessions may limit student progress toward their goals, especially as group size increases. However, other studies either have shown no significant difference (Boyle, McCartney, Forbes, & O'Hare, 2007) or indicated that some students, with certain goals, benefit from group therapy (Oliver & Scott, 1981). These mixed results may reflect the reality that there is no one best practice or "one fits all" service delivery model. Rather, what is deemed most effective should be driven by the current needs of the individual client so that assessment and intervention practices can be sufficiently tailored (Brinton & Fujiki, 2003).

Furthermore, SLPs are currently participating in a Response to Intervention (RTI) model to enhance educational opportunities using scientifically based instruction for all children and to prevent disabilities (Fletcher, Lyon, Fuchs, & Barnes, 2007; Fuchs & Deshler, 2007; Graner, Faggella-Luby, & Fritschmann, 2005). Because many students with specific language impairments are at risk for classroom failure, SLPs have an important role in identifying those students who require varying levels of support to ensure their success. RTI, as a variation of dynamic assessment (i.e., teach-test-reteach), requires an evaluation of baseline abilities, the provision of a period of individualized instruction, and a reassessment of how much and how quickly a student has learned in comparison with his or her classmates (Ehren & Nelson, 2005). If SLPs are going to effectively participate in RTI, they need to select language targets that are relevant to literate language development, to consider models of service delivery beyond the traditional pull-out model, and to collaborate with teachers in curriculum-based assessment (Ehren & Whitmire, 2005). It is unfortunate that the current SLP shortages, workload challenges, and lack of time to collaborate with educational colleagues compromise the ability of school SLPs to fully participate in and contribute to the RTI model.

In summary, addressing the SLP shortage is a top priority and, although job satisfaction, caseload, and workload have been implicated in this shortage, there is a need to expand on previous investigations by examining these factors together and in a less populous state (Dowden et al., 2006). Retention rates, job satisfaction, caseload, and

workload may also relate to important dimensions of best practice (i.e., evidence-based practice, cultural competence, family-centered care, and the ability to provide optimal models of service delivery) as previous research indicates that lack of time is a significant barrier to the conduct of best practice. Thus, the specific purposes of this study were to do the following:

1. Answer the call of Dowden and colleagues by partially repeating their investigation of caseloads in a less populous state with smaller caseloads
2. Examine the relations among several dimensions of job satisfaction, caseload size, workload satisfaction, and best practice and investigate their links to retention

## Method

### Participants

Participants were 75 full-time SLPs (72 indicated 1.00 FTE [full-time equivalent] and 3 indicated .8 FTE) working in public schools in the state of Vermont (3 men, 72 women), ranging in age from 27 to 65 years ( $M = 48$ ,  $SD = 8.9$ ). Because variation in the number of hours worked per week (and its relation to variables of interest) had the potential to complicate interpretation of the data, full-time employment was an inclusion criterion for this study. The vast majority of participants held master's degrees ( $n = 71$ , 94.7%), one participant held a bachelor's degree (1.3%), and three held doctoral degrees (4%). The number of years that participants had worked in the public school system ranged from 2 to 38 years ( $M = 17.7$ ,  $SD = 9.43$ ).

### Measure

Participants were asked to complete a survey (see appendix) developed for the purposes of this study. The original survey contained three additional items that are not shown. Specifically, one item (adapted from Dowden et al., 2006) asked participants to assess the nature of SLPA training by indicating the number of current SLPA who received formal training, on-the-job training, or no training. A second item (adapted from Dowden et al., 2006) asked participants to indicate the number of students served by grade (e.g., K-2, 3-4, 5-8, and so on). The third item (adapted from Edgar & Rosa-Lugo, 2007) asked participants to report the number of school placements by indicating one school, two schools, three schools, or four or more schools. Data for these items were dropped from analyses because they provided information ultimately not relevant to this study or because participants rarely provided answers.



In its present form, the first three items on the survey solicited demographic information about the participants' age, gender, and education level. Questions 4 through 6 were designed to collect information about retention. Questions 7 and 8 solicited information about caseload. Question 9 asked about the participants' official appointment. Questions 10 through 15 were designed to solicit information about workload. Question 16 assessed several dimensions of job satisfaction. All questions described thus far were borrowed or adapted from previous investigations (i.e., Dowden et al., 2006; Edgar & Rosa-Lugo, 2007). Questions 17 through 21 were developed for the purposes of this study to solicit information about SLPs' ability to address five dimensions of best practice. Questions 17 and 18 tapped two aspects of evidence-based practice (accessing/consuming research and consultation with experts), Question 19 tapped family-centered care, Question 20 tapped optimal service delivery models, and Question 21 tapped cultural competence. Because the literature cited earlier consistently identified available time as central to the ability to implement best practice, these questions were framed in terms of perceived time available (e.g., "I have sufficient paid time to prepare for the assessment and treatment of students who are culturally or linguistically diverse").

**Operationalizing workload.** Because we surveyed full-time SLPs, we expected that the total number of hours when assessing a variety of activities (e.g., paperwork, meetings, co-teaching, advising, etc.) would approach 40 or SLPs' full-time equivalent and create a restriction of range in the data. Given the dynamic nature of SLPs' work in schools and the difficulty of developing a comprehensive and mutually exclusive list of professional activities subsumed under workload, we also questioned the participants' ability to provide accurate time estimates spent on each activity. In short, we expected that SLPs' workloads would be complicated, full, and difficult to report and interpret. Thus, we chose to use a comparatively simple index of workload by operationalizing it in terms of workload satisfaction (see Question 16). This allowed us to examine participants' feelings about workload (which are arguably more likely to be related to the variables of interest than would number of hours) while avoiding the potential to introduce unnecessary noise in the data.

## Procedure

The survey was piloted and refined based on feedback from a focus group consisting of five graduate students and two faculty members at the University of Vermont. A list of 420 SLPs developed over the past 2 years by faculty in the Department of Communication Sciences at the University of Vermont was used. This master list was developed from

smaller lists (from the Vermont Department of Education and VSHA) and included practicing noncertified as well as ASHA-certified SLPs working across settings in the state of Vermont. Because the state of Vermont requires licensing for all practicing SLPs, the list was made up entirely of licensed SLPs. SLPs working in settings other than schools were omitted, resulting in a list of 297 names. Surveys were sent to the 297 licensed, school-based SLPs identified.

Surveys were accompanied by a brief letter outlining the purpose of the study, the nature of the survey, assurances of confidentiality, and the researchers' contact information. A self-addressed stamped envelope was also enclosed in which to return the survey. Of the 297 surveys sent, 30 were returned as undeliverable. Of the remaining 267 surveys, 108 were completed and returned, resulting in a 41% response rate. Thirty-three of these were dropped from analyses because the participants were not currently working in the Vermont public school system ( $n = 13$ ) or because they worked part-time (between .25 and .75 FTE,  $n = 20$ ) and, as such, did not meet inclusion criteria.

All demographic data were analyzed descriptively, and responses to survey questions were analyzed descriptively and inferentially. For the survey items retained in these analyses, missing data were rare. Typically, the amount of missing data for any individual item ranged from 0 to 2% and was dealt with using pairwise deletion.

## Results

The results for retention rate, caseload size, workload, job and workload satisfaction, and best practice are summarized below. In addition, correlational analyses are presented for the variables of interest.

### Retention Rates

Edgar and Rosa-Lugo (2007) defined retention as the number of years that SLPs reported they anticipated remaining in the school setting. Because this definition does not credit time already spent in the position (as it should), retention was defined in this study as the number of years that a participant reported working in the public school system added to the number of years anticipated remaining in the public school system. Estimates of retention ranged from 2 to 41 years ( $M = 27.43$ ,  $SD = 9.61$ ). In addition, 76% of participants reported planning to leave the public school system in the next 10 years.

### Caseload Size

The number of students on a caseload ranged from 10 to 55 ( $M = 35.3$ ,  $SD = 10.53$ ) in a negatively skewed distribution. For the very few participants with caseloads of fewer than

20, workloads appeared to be complex and likely involved heavy involvement with other activities (e.g., case management, co-teaching). A total of 23 participants (30.3%) reported caseloads larger than the ASHA-recommended maximum of 40 with another 6 participants (7.8%) reporting caseloads at the recommended maximum of 40. When asked how caseloads were determined (Question 8), most participants marked more than one answer. As a consequence, the values of these categories do not sum to 1. Comprehensive results for these data are presented in Table 1.

### Workload

The total number of monthly therapy sessions ranged from 12 to 300 ( $M = 115.51$ ,  $SD = 59.52$ ). The percentage of group sessions ranged from 0 to 96.43% ( $M = 31.70$ ,  $SD = 21.83$ ). The number of evaluations completed in a typical month ranged from 0 to 7 ( $M = 2.41$ ,  $SD = 1.34$ ). Participants reported spending 3 to 44 hours per week ( $M = 10.20$ ,  $SD = 4.85$ ) on administrative and managerial duties and working between 0 and 25 hours per week ( $M = 7.23$ ,  $SD = 4.48$ ) beyond those hours agreed upon in their contract. Forty-four (59%) participants reported having assistance from a speech assistant or paraeducator, and the remainder reported no such assistance.

### Job Satisfaction and Workload Satisfaction

Participants were asked to rate several dimensions of job satisfaction on a 1 to 5 scale (Question 16). Descriptive data for responses to these items are presented in Table 2. In general, participants reported high degrees of satisfaction across the dimensions assessed (grand mean = 3.41). It is notable that the lowest rated dimension was satisfaction with workload ( $M = 2.41$ ,  $SD = 1.1$ ). To determine whether ratings for this dimension of job satisfaction were significantly lower than the other 20 dimensions, a series of paired  $t$  tests was conducted. For each comparison, satisfaction with workload was rated significantly lower than any other dimension (maximum  $p$  value for any one comparison = .002) and effects held after a Bonferroni correction for familywise error. It is interesting that the four lowest rated dimensions were workload, caseload, misunderstanding of the role of SLPs, and salary. These results are consistent with previous research (Edgar & Rosa-Lugo, 2007).

### Best Practice

Participants were asked to rate the degree to which they agreed with statements that they had sufficient time to engage in several dimensions of best practice using a 1 to 5 scale (ranging from *never* to *always*). The means, standard

**Table 1.** Descriptive Data Representing How Caseload Sizes Are Determined

Caseload Is	<i>n</i>	%
Mandated by contract	3	4
Mandated by local education agency guidelines	9	12
Mandated by state regulations	17	22.7
Determined by following ASHA guidelines	8	10.7
Determined by individual speech-language pathologist	35	46.7
Determined by Individualized Education Program team	36	48
Determined by # of individuals with speech and language needs	68	90.7
Other	8	10.7

deviations, and frequencies by response category are presented in Table 3. The means for all dimensions were relatively low (grand mean = 2.60). The lowest rated dimension involved time to access and consume research relevant to one's caseload ( $M = 2.23$ ,  $SD = .95$ ). A series of  $t$  tests (with a Bonferroni correction) revealed that the ratings for this dimension were significantly lower than all of the other dimensions of best practice ( $p < .001$ ) with the exception of time to prepare for culturally diverse students, which was also rated particularly low ( $M = 2.49$ ,  $SD = .96$ ).

### Correlational Analyses

Data for the variables of interest were submitted to a series of Pearson's product-moment correlations. To reexamine some important relations explored by Dowden et al. (2006), the following comparisons were conducted. No correlation was found between the amount of experience an SLP has in the field (as indexed by the number of years working in the public school system) and caseload size. No correlation was found between caseload size and whether the SLP had the help of an assistant. No correlation was found between the number of students on an SLP's caseload and the number of hours that he or she worked beyond those contracted. A correlation was found between the number of students on an SLP's caseload and the proportion of group to individual sessions he or she conducted ( $r = .29$ ,  $p < .01$ ).

Building on the work of Edgar and Rosa-Lugo (2007), the relation between job satisfaction, caseload size, workload satisfaction, best practice, and retention was explored. Several dimensions of job satisfaction and best practice as well as caseload size related to retention, although the correlations were typically small to moderate. Caseload size was also inversely related to several dimensions of job satisfaction and one aspect of best practice (i.e., time to provide optimal service delivery). Workload operated similarly

**Table 2.** Means and Standard Deviations for Dimensions of Job Satisfaction and the Frequency (N) and Valid Percentage of Ratings of 1 (Strongly Dislike) to 5 (Strongly Like)

To What Degree Do You ...?	M	SD	Strongly Dislike		Dislike		Neither Like nor Dislike		Like		Strongly Like	
			n	%	n	%	n	%	n	%	n	%
Like school hours	4.00	0.95	1	1.4	6	8.0	8	10.7	34	45.3	23	30.7
Like working with children	4.85	0.36	0	0	0	0	0	0	11	14.9	63	85.1
Like your benefits	4.33	0.75	0	0	2	2.7	6	8.0	31	41.3	35	46.7
Like your schedule	3.59	1.01	0	0	17	23.0	8	10.8	37	50.0	12	16.0
Like working in educational setting	4.17	0.83	1	1.4	4	5.3	2	2.7	40	53.3	26	34.7
Like professional advancement	3.25	1.01	4	5.6	10	13.9	30	41.7	20	27.8	8	11.1
Like caseload	3.12	1.10	5	6.8	19	25.7	18	24.3	26	35.2	6	8.1
Like workload	2.41	1.09	17	23.0	26	35.1	14	18.9	17	23.0	0	0
Like parental involvement	3.45	0.98	4	5.4	6	8.1	23	31.1	34	45.9	7	9.5
Like your salary	3.20	1.11	6	8.1	17	23.0	13	17.6	33	44.6	5	6.8
Like others' understanding of your role	3.06	0.97	3	4.1	21	28.4	22	29.7	25	33.8	3	4.1
Like your work space	3.47	1.13	5	6.8	11	14.9	14	18.9	32	43.2	12	16.2
Like availability of materials	3.77	0.96	1	1.4	9	12.2	11	14.9	38	51.4	15	20.3
Like administrative support	3.62	0.99	2	2.7	9	12.2	16	21.6	35	47.3	12	16.2
Like access to technology	3.53	0.99	2	2.7	12	16.0	14	18.7	38	50.7	9	12.0
Like training for special populations	3.69	0.94	2	2.7	9	12.0	9	12.0	45	60.0	10	13.3
Like your variety of tasks	3.96	0.65	0	0	3	4.1	8	10.8	52	70.3	11	14.9
Like collaborating with other professionals	3.95	0.65	2	2.7	5	6.7	5	6.7	48	64.0	15	20.0
Like professional development	3.72	1.07	3	4.0	10	13.3	8	10.7	38	50.7	16	21.3
Like speech-language pathologist mentor	3.21	1.07	4	5.9	11	16.2	30	44.1	13	19.1	10	14.7

but predicted even more dimensions of job satisfaction and best practice than did caseload size and predicted them more strongly. Results for comparisons are presented in Table 4.

## Discussion

This study explored the relationships among retention, caseload size, workload satisfaction, job satisfaction, and best practice in a sample of full-time SLPs working in Vermont schools. This study confirmed past research (VSHA, 2007) in that retention of SLPs was found to be an issue in the state of Vermont, as evidenced by 76% of SLPs indicating that they will be leaving the field in the next 10 years.

Of course, this can be attributed, in part, to retirement as suggested by the ages of the participants.

Recall that the specific purposes of this study were to (a) answer the call of Dowden and colleagues (2006) by partially repeating their investigation of caseloads in a less populous state with smaller caseloads and (b) examine the relations between several dimensions of job satisfaction, caseload size, workload satisfaction, and best practice and investigate their links to retention.

To address the first purpose, several items on our survey were borrowed from Dowden et al. (2006) to assess caseload. The Dowden et al. findings indicated that the average caseload size in Washington State was 55, with 86% of caseloads surpassing the ASHA recommended maximum

**Table 3.** Means and Standard Deviations for Dimensions of Best Practice and the Frequency (*n*) and Valid Percentage of Ratings of 1 (Never) to 5 (Always)

Item	<i>M</i>	<i>SD</i>	Never		Rarely		Sometimes		Often		Always	
			<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Time to access and consume research	2.23	.95	19	25.3	30	40.0	17	22.7	8	10.7	1.3	1.1
Time to collaborate with experts	2.56	.86	6	8.0	32	42.7	27	36.0	9	12.0	1	1.3
Time to collaborate with families	2.91	.89	2	2.7	22	29.8	36	48.7	10	13.5	4	5.4
Time for optimal service delivery	2.80	.91	8	10.8	17	23.0	33	44.6	14	18.9	2	2.7
Time to prepare for students who are culturally or linguistically diverse	2.49	.96	10	15.9	23	36.5	22	34.9	5	7.9	3	4.8

of 40. By contrast, the average caseload in Vermont was found to be 35, with approximately 30% of participants reporting caseloads surpassing the ASHA recommendation. This suggests that Vermont is, indeed, a good choice for data comparison. Other than the caseload differences, the participants in the two surveys were similar. For instance, ranges in levels of education and experience were similar across the studies. In addition, the majority of participants in both studies reported that caseload size was primarily decided by the number of students with speech and language needs (see Table 1).

A subset of the comparisons conducted by Dowden et al. (2006) was reexamined in this study. First, Dowden and colleagues asked, "Do clinicians with less experience carry smaller caseloads?" The findings from both surveys revealed no significant correlation between experience and caseload size. One might argue that more experienced (and capable) SLPs would be able or expected to take on larger caseloads. On the other hand, more experienced SLPs may also develop a degree of specialization and therefore have smaller caseloads characterized by more complex cases. However, these results are consistent with neither interpretation. Because caseload size was independent of SLP experience, the demands placed on SLPs appear to be related to the needs of individual schools and are consistent with the finding that caseload size is determined primarily by the number of students and speech and language needs. Another question asked by Dowden et al. was, "Do clinicians with larger caseloads have more assistants?" Whereas Dowden et al. found a correlation between caseload size and having an assistant, we did not. SLPs with large caseloads in our sample may benefit from the availability of assistants to meet growing caseload, not to mention workload, demands. It should also be noted that Vermont and Washington States

(where the Dowden et al. research was conducted) do not differ in their laws and regulations with regard to the use of SLPAs (both states currently have none), and so, although this can be eliminated as an explanation for the mixed results, laws and regulations remain an important consideration when interpreting the results from studies where these may vary. Dowden et al. also asked, "Do clinicians with larger caseloads routinely work more overtime than do clinicians with smaller caseloads?" Neither survey found a significant correlation between caseload size and the number of hours of overtime. As Dowden and colleagues suggested, this may be explained by the fact that it is difficult for clinicians to find more time to add to their schedules, even when caseload continues to rise. Finally, Dowden and colleagues asked, "Do clinicians with larger caseloads conduct more group therapy sessions than do clinicians with smaller caseloads?" Both studies revealed a correlation between caseload size and the ratio of group to individual sessions. If clinicians have more clients to serve and the same limited amount of time in which to serve them, they may have little choice but to combine students into groups. As suggested by Dowden et al., these findings suggest that group treatment is being decided by caseload size rather than best practice service delivery models. Given that these results largely agreed with the results of Dowden and colleagues, it appears that the majority of findings reported above is robust and generalizable to a less populous state like Vermont, where, in comparison with the sample surveyed in Washington, SLPs have relatively smaller caseloads.

To address the second purpose of this study, we explored the relationships among job satisfaction, caseload size, workload satisfaction, best practice, and retention. Retention was significantly positively correlated with how favorably participants rated the dimensions of professional



**Table 4.** Relationships From Job Satisfaction and Best Practice to Retention, Caseload Size, and Workload Satisfaction

Dimension	Retention	Caseload Size	Workload Satisfaction
	<i>r</i> ( <i>p</i> )	<i>r</i> ( <i>p</i> )	<i>r</i> ( <i>p</i> )
Job satisfaction: To what degree do you ... ?			
Like school hours	<i>ns</i>	-.27 (.02)	.31 (.00)
Like working with children	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like your benefits	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like your schedule	<i>ns</i>	<i>ns</i>	.44 (.00)
Like working in educational setting	<i>ns</i>	-.28 (.02)	.38 (.00)
Like professional advancement	.37 (.00)	<i>ns</i>	.28 (.01)
Like caseload	.37 (.00)	-.54 (.00)	.66 (.00)
Like workload (workload satisfaction)	.29 (.02)	-.36 (.00)	—
Like parental involvement	.43 (.00)	-.30 (.00)	.36 (.00)
Like your salary	.38 (.00)	-.23 (.03)	.33 (.00)
Like others' understanding of your role	<i>ns</i>	<i>ns</i>	.35 (.00)
Like your work space	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like availability of materials	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like administrative support	<i>ns</i>	<i>ns</i>	.46 (.00)
Like access to technology	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like training for special populations	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like your variety of tasks	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like collaborating with other professionals	.25 (.03)	<i>ns</i>	<i>ns</i>
Like professional development	<i>ns</i>	<i>ns</i>	<i>ns</i>
Like speech-language pathologist mentor	<i>ns</i>	<i>ns</i>	<i>ns</i>
Caseload size	-.21 (.04)	—	-.36 (.00)
Best practice			
Time to access and consume research	<i>ns</i>	<i>ns</i>	.26 (.03)
Time to collaborate with experts	.27 (.02)	<i>ns</i>	.26 (.03)
Time to collaborate with families	.28 (.02)	<i>ns</i>	.28 (.02)
Time for optimal service delivery	.48 (.00)	-.36 (.00)	.54 (.00)
Time to prepare for students who are culturally or linguistically diverse	<i>ns</i>	<i>ns</i>	<i>ns</i>

Note: *ns* = not significant.

advancement, caseload size, workload (i.e., workload satisfaction), parental involvement, salary, and collaborating with other professionals. Retention also correlated negatively with caseload size and positively with the following aspects of best practice: time to collaborate with experts, collaborate with families, and engage in optimal service delivery models. It makes sense that many of these factors would be associated with retention of SLPs working in schools. The ability to work with colleagues, time to contribute to current models of innovative practice in education (e.g., RTI), and opportunities to engage families are best practice activities that are likely to facilitate positive change for students with speech-language impairments and foster job satisfaction. With regard to salary, research across fields has consistently found that satisfaction with salary leads to enhanced overall job satisfaction and retention of employees (e.g., Tremblay, Sire, & Balkin, 2000). In considering the relationship between retention and the remaining factors,

one common and underlying variable may be the availability of time. That is, available time is a likely third variable that appears to be inversely related to these dimensions of job satisfaction and, ultimately, rates of retention. This interpretation is consistent with the fact that many of the dimensions of job satisfaction that were unrelated to retention are arguably independent of time (e.g., liking one's workspace or access to technology). Although the correlational nature of these data makes these arguments tentative, there seems to be sufficient evidence to single out the SLPs' time as one important potential factor in explaining patterns of job satisfaction and likelihood of SLP retention. The fact that retention related to several aspects of best practice, which were specifically situated in terms of perceived available time, lends further support to this interpretation.

It should be noted that these results for job satisfaction and retention differ somewhat from those of Edgar and Rosa-Lugo (2007), who found correlations between

retention and school hours, school schedule, and how much participants enjoyed working with children. With regard to the last, inspection of Table 1 indicates that participants in this study uniformly reported high agreement in the degree to which they liked working with children. This led to a restriction of range in the data, making a relationship between this variable and retention difficult to detect. Although this difference can be explained statistically, the reasons for the contradictory findings for school hours and school schedule are not as clear. However, one possibility involves the fact that participants in the Edgar and Rosa-Lugo sample were less satisfied than were the participants in this study. Given the correlational nature of the data, it is not possible to determine why these differences emerged, but the substantially higher caseload size ( $M = 60$ ) in the Edgar and Rosa-Lugo study is a likely culprit given that we found caseload to negatively relate to retention (not to mention several dimensions of job satisfaction). As such, the mixed results point to an important area of further research but suggest that these particular findings of Edgar and Rosa-Lugo do not generalize to this sample.

Building on the work of Edgar and Rosa-Lugo (2007), several dimensions of job satisfaction were further explored in terms of their relationships to caseload size and workload satisfaction. As noted above, caseload was negatively correlated with several dimensions of job satisfaction (Table 4) including satisfaction with school hours, working in an educational environment, workload satisfaction, parental involvement, and salary. Workload operated similarly but predicted even more dimensions of job satisfaction and predicted them more strongly. As such, workload was the best predictor of job satisfaction overall. As noted previously, caseloads and workloads should be construed as related but distinct. Caseload size refers to the number of clients served by an SLP, whereas workload is broader and refers to all work that must be done by an SLP to provide direct and indirect services to those clients. So, even in a state (like Vermont) where caseload sizes may be relatively low, workload appears to contribute to decreases in job satisfaction and adds interesting variance beyond what may be captured by caseload size.

This study also sought to explore whether and how certain dimensions of best practice related to the availability of time that SLPs reported having to engage in several dimensions of best practice. Inspection of Table 3 indicates that participants reported a lack of time for carrying out all dimensions of best practice. Specifically, 11.8% reported that they often or always had time to access and consume research and this is similar to previous estimates (Vallino-Napoli & Reilly, 2004; Zipoli & Kennedy, 2005). Similarly, 10% reported having time to collaborate with experts. In addition, 14% reported that they often or always had time to collaborate with families, 16% reported that they often or

always had time to conduct optimal service delivery, and only 8% reported that they often or always had time to prepare for students who were culturally or linguistically diverse. It is notable that less than a fifth of the participants felt that they had sufficient time to engage in those activities considered critical for best practice. As previously reported (Vallino-Napoli & Reilly, 2004; Zipoli & Kennedy, 2005), the single most significant barrier to best practice appears to be the factor of available time. This is true whether best practice is construed in light of the ability to conduct evidence-based practice, implement principles that are family-centered, select the most optimal service delivery model, or provide services that are deemed culturally competent. The findings of this research support the notion that the limitations on time posed by high workloads have grave implications and are likely to diminish the SLPs' ability to conduct best practice. In line with this interpretation, SLPs rated workload satisfaction as significantly less favorable than any other dimension of job satisfaction.

Moreover, the degree to which SLPs felt that they had time to carry out optimal service delivery was arguably the most valid index of best practice as it was operationalized in this study. This makes sense because the other dimensions of best practice can be viewed as subsumed under optimal service delivery. Furthermore, time to implement optimal service delivery was most strongly correlated with retention, caseload, and workload satisfaction. In fact, variation in time to conduct optimal service delivery explained 23% of the variation in retention, 13% of the variation in caseload size, and almost 30% of the variation in workload satisfaction. It could be argued that if SLPs have a higher caseload and workload, this may translate into less time to carry out services deemed most optimal. In turn, having too little time to carry out optimal service delivery may lead SLPs to report lower job satisfaction and rates of retention. It may be that having insufficient time to collaborate with other professionals and families and limited time to investigate and integrate nuances in relevant research for practice increase SLPs' frustration in being able to implement the most effective intervention for their students. This frustration is likely to be heightened by our current professional focus on evidence-based practice and SLPs' desire to be current, efficient, and effective in their model of service delivery. Although our correlational data preclude determinations of causality, the findings provide tentative evidence that dimensions of best practice may relate to caseload and retention in transactional and complex ways. Further study is needed to elucidate the directions of effects we entertain.

Previous research has demonstrated that the majority of SLPs do not conduct evidence-based practice (Vallino-Napoli & Reilly, 2004; Zipoli & Kennedy, 2005). Yet, evidence-based practice has been deemed a key factor in best

practice because it enhances the probability that SLPs are using methods proven to be effective. SLPs in our Vermont sample reported that they rarely had time to access and consume scientific research relevant to their caseloads but this was unrelated to retention. As noted in this article's introduction, barriers to evidence-based practice involve time but they also surely involve the perceived value of the research for informing intervention for individual students as well as access to technology. It is worthwhile to explore this topic further with the aim of identifying strategies to promote evidence-based practice.

In a related vein, time to prepare for culturally or linguistically diverse students was one dimension of best practice that did not relate to retention, caseload size, or workload satisfaction. This was unexpected but not surprising given that this study was conducted in a state where, in contrast to the national average of 40% (National Center for Education Statistics, 2005), there is a relatively small percentage of students who speak a language other than English in the home. As such, it is worthwhile to examine these relationships using a more diverse sample.

### *Limitations and Directions for Further Research*

Several limitations of this research deserve mention. In light of the aforementioned challenges with measuring workload, our operationalization in terms of workload satisfaction provides a new method for construing the relations we considered. Nevertheless, further research might employ a measure of workload based on a more objective index such as the model suggested by ASHA (2002a), which involves not just the number of students an SLP serves but the total amount of time the SLP needs to provide direct and indirect services to those students. Similarly, in designing items to assess best practice, there was no indication that an agreed-upon definition of best practice exists within the SLP community despite common use of the term. This study made use of only five items designed to cover what is clearly a broader multifaceted construct. In the future, research should strive to assess best practice by developing a greater number of relevant items to adequately cover the construct of best practice. In a related vein, we did not solicit information about whether SLPs were under collective bargaining, and this should be considered in the future as it may affect caseload, workload, and other aspects of the work environment that may relate to retention.

Further survey research in this area should also assess, more specifically, the reasons for leaving an SLP position in schools (e.g., because of retirement, dissatisfaction with position, geographical move, or family considerations). We chose not to solicit this information in our survey targeting

SLPs currently working in the field because such questions were expected to require a great deal of speculation. For this reason, it is necessary to expand research in this area to involve SLPs who have already left the school setting. This would also confer the advantage of gaining more accurate estimates of retention rates than were possible in this study and would allow for a comparison between actual workload, reported workload, and perceptions of workload.

As stated previously, our correlational data do not allow for determinations of causality and so arguments about directions of effects remain speculative. In fact, we imagine that the nature of the relations among the variables of interest in this study is complex, transactional, and influenced by a multitude of factors. As argued, high caseload and workload may contribute to decreases in some dimensions of job satisfaction, lack of time to carry out best practice, and lower rates of retention, however, the converse is also likely. Recently, ASHA (2008) surveyed a national sample of SLPs working in a school setting and asked them to identify challenges that were a result of the SLP shortage. A total of 79% indicated that the SLP shortage increased caseload and workload, 55% reported that it decreased the quality of services, 54% reported that it decreased opportunities for individual services, 38% reported that it decreased opportunities for networking and collaboration, and 37% reported that it resulted in some students receiving partial or no services. Not only might these effects be bidirectional, but factors not assessed in this study (e.g., work efficiency, attitudes about what constitutes best practice) probably contribute to the effects observed.

Finally, it is important to acknowledge that, compared with many survey studies, this sample was relatively small. In addition, this study was limited, by purpose and design, to a particular geographic region. Although this was necessary to provide an appropriate comparison with previous research, there are limitations on our ability to generalize findings. It is clear that more diverse populations and stratified, randomized sampling procedures are needed to enhance generalizability.

### *Summary and Implications*

In our sample, caseloads often exceeded ASHA's recommendation for a maximum of 40, but average caseloads were lower compared with those reported in the literature. In line with previous research, our study reconfirmed that, even in a small state like Vermont with relatively small caseloads, there was (a) no correlation between clinician experience and caseload size, (b) no correlation between caseload size and overtime, and (c) a significant correlation between caseload size and the number of group sessions performed. Inconsistent with previous research, we found no relation between caseload size and the number of SLP assistants.

Results from this study also indicated that salary and those dimensions of job satisfaction that implicated time were related to retention, caseload, and (most strongly) workload. It is not surprising, then, that although SLPs in this study were generally satisfied in their positions, they were significantly dissatisfied with their workload. SLPs further reported that they did not have enough time to implement dimensions of best practice, and this was connected to caseload, workload, and decreased retention.

Given these findings, an important question is what can be done to retain qualified SLPs in schools to meet growing caseload and workload demands? To retain SLPs, school districts will likely need to hire more SLPs to serve the same number of students. Although the hiring of SLPAs and paraprofessionals may be an attractive option in light of our finding that caseload was unrelated to the availability of such assistants and their potential to share workload demands while limiting the financial burden on schools, this remains a controversial issue given their relative lack of training. It is also possible that the supervisory duties that accompany the use of these assistants might actually increase SLPs' workload (ASHA, 2004b).

Alternatively, one obvious way to attract and keep qualified SLPs in the school setting is to increase salaries, which may lead to higher satisfaction with their position, despite high workloads, and several states have moved in this direction (e.g., Boswell, 2007). It is unfortunate that this alone would not be expected to enhance the SLPs' ability to negotiate overwhelming workloads and conduct best practice. Thus, it may be worthwhile to implement ASHA's workload model to define the nature of the SLPs' work and advocate for appropriate workload and caseload standards to better ensure that students receive optimal service delivery. In managing workload, SLPs may also choose to advocate for exemption from general school

duties (e.g., monitoring recess) and other "building-assigned non-special education duties" (Cirrin, 2004, p. 1) when such duties are asked or expected of them. It is notable that failure to participate in these activities is somewhat controversial and may actually contribute to the SLPs' sense of isolation and perception that educators and administrators do not understand the role of the SLP. It is clear that the costs and benefits for exemption from general school duties should be carefully considered by individual SLPs. It should also be noted that going to a workload model alone is probably not sufficient given federal mandates that state that all children with identified speech and language disabilities that impede educational progress are entitled to services. Given the challenges posed by workload and the need to provide quality services, another way to attract and keep qualified SLPs involves the hiring of more SLPs to share workload and increase available time to conduct best practice. This, in turn, has implications for training and the ability to graduate a sufficient number of SLPs to be hired.

In summary, this study suggests the importance of further exploring the relationships among retention, job satisfaction, caseload size, workload satisfaction, and best practice. This is important for addressing the SLP shortage and ensuring that children receive services that facilitate optimal developmental outcomes. A combination of increased salaries, advocacy for more manageable caseloads and workloads, and movement toward workload models is essential for meeting the challenges faced by SLPs and, ultimately, the schools who fail to retain them. It is clear that the significant numbers of predicted retirements in the next 10 years suggest that the profession of speech-pathology has some work to do in creating desirable work environments with reasonable workloads to attract and retain new professionals to the school setting.

## Appendix

### *Speech-Language Pathologist (SLP) Survey*

The purpose of this measure is to explore the relationships among retention and SLPs' job satisfaction, caseload, workload, and ability to conduct best practice. Please read each question carefully. There are no right or wrong answers and no answers are valued above others. Please remember to respond as honestly and thoughtfully as possible. Your answers are completely confidential. This survey should only take 5 to 10 minutes to complete. Thank you in advance for your participation in this important study.

1. What is your age? \_\_\_\_\_
2. What is your gender?
  - Male
  - Female

(continued)



## Appendix (continued)

3. Indicate when you received the following degrees:

Degree	Year
Bachelor's	_____
Master's	_____
Doctoral (if applicable)	_____

4. Approximately how many years have you worked in the public school setting? \_\_\_\_\_
5. Approximately how many years do you anticipate remaining in your current position? \_\_\_\_\_
6. Approximately how many years do you anticipate remaining in the public school system? \_\_\_\_\_ (If you feel you do not know for certain the answer to this question, please respond by providing your best estimate.)
7. On average, about how many different students do you evaluate, treat, or consult on in a typical month? \_\_\_\_\_
8. How is your caseload size determined? (Check all that apply.)

- Mandated by contract
- Mandated by local educational agency guidelines
- Mandated by state regulation
- Determined by following ASHA guidelines
- Determined by the individual SLP/supervisor
- Determined by the IEP team
- Determined by the number of individuals with speech-language pathology needs
- Other, please describe: \_\_\_\_\_

9. What is your official appointment in FTE (full-time equivalent)? (Please check one.)

- .25
- .5
- .75
- 1.0
- Other, please describe: \_\_\_\_\_

10. On average, about how many individual and group sessions do you conduct in a typical month? (Please exclude group sessions from the individual count.)

Individual sessions per month \_\_\_\_\_

Group Sessions per month \_\_\_\_\_

11. On average, about how many evaluations do you do in a typical month? \_\_\_\_\_

12. On average, about how many hours do you spend in a typical week on administrative or managerial duties? \_\_\_\_\_

13. On average, about how many hours do you spend in a typical week in meetings? \_\_\_\_\_

14. On average, about how many hours do you work in a typical week beyond those agreed upon in your contract (including time spent working at school and at home)? \_\_\_\_\_

15. Do you receive support from speech-language pathology assistants or paraeducators?

Yes \_\_\_\_\_ No \_\_\_\_\_ If no, skip to 17.

If yes, on average, about how many hours a week do you receive support from speech-language pathology assistants and paraeducators? \_\_\_\_\_

16. Please answer the following questions about your satisfaction with your current position:

To what degree do you favor or disfavor the following aspects of your work environment?	Strongly Disfavor	Disfavor	Neither Favor nor Disfavor	Favor	Strongly Favor
School hours	1	2	3	4	5

(continued)

## Appendix (continued)

To what degree do you favor or disfavor the following aspects of your work environment?	Neither Favor nor				
	Strongly Disfavor	Disfavor	Disfavor	Favor	Strongly Favor
Working with children	1	2	3	4	5
Benefits (e.g., health insurance, retirement, etc.)	1	2	3	4	5
Schedule	1	2	3	4	5
Educational setting	1	2	3	4	5
Opportunity for professional advancement	1	2	3	4	5
Caseload (e.g., # of students)	1	2	3	4	5
Workload (e.g., IEPs, management, paperwork, meetings)	1	2	3	4	5
Parental involvement	1	2	3	4	5
Salary	1	2	3	4	5
Others' understanding of my role	1	2	3	4	5
Work space and facilities	1	2	3	4	5
Availability of materials and assessment tools	1	2	3	4	5
Administrative support	1	2	3	4	5
Access to technology	1	2	3	4	5
Opportunity for training involving special populations (e.g., autism, cleft palate)	1	2	3	4	5
Variety of daily tasks	1	2	3	4	5
Collaboration with other professionals in my school	1	2	3	4	5
Opportunities for professional development	1	2	3	4	5
Availability of an experienced SLP mentor	1	2	3	4	5

### How often are you able to engage in the following aspects of best practice?

17. I have sufficient paid time to access and consume scientific research relevant to the individuals on my caseload.

Never    Rarely    Sometimes    Often    Always  
1        2        3        4        5

18. I have sufficient paid time to collaborate with colleagues in the field in reference to my caseload.

Never    Rarely    Sometimes    Often    Always  
1        2        3        4        5

19. I have sufficient paid time to collaborate with students' families on important aspects of the students' assessment and treatment.

Never    Rarely    Sometimes    Often    Always  
1        2        3        4        5

20. I have sufficient paid time to provide what I consider to be the optimal service delivery model(s) to meet each student's individual needs.

Never    Rarely    Sometimes    Often    Always  
1        2        3        4        5

21. I have sufficient paid time to prepare for the assessment and treatment of students who are culturally or linguistically diverse.

Never    Rarely    Sometimes    Often    Always  
1        2        3        4        5

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