

A SURVEY OF
SPEECH-LANGUAGE PATHOLOGISTS'
AND TEACHERS' SCHOOL-BASED
COLLABORATION

by

Hannah Elizabeth Huffman

Master of Science, 2020
Texas Christian University
Fort Worth, Texas

Submitted to the Graduate Faculty of
Harris College of Nursing and Health Sciences
Texas Christian University
in partial fulfillment of the requirements
for the degree of

Master of Science

May 2020

A SURVEY OF
SPEECH-LANGUAGE PATHOLOGISTS'
AND TEACHERS' SCHOOL-BASED
COLLABORATION

A Thesis for the Degree
Master of Science

by

Hannah Elizabeth Huffman

Thesis approved by:

Danielle Brimo

Danielle Brimo, PhD., CCC-SLP, Major Professor

Laura Green

Laura Green, PhD., CCC-SLP, Committee Member

Emily Lund

Emily Lund, PhD., CCC-SLP, Committee Member

Endia J. Lindo

Endia Lindo, PhD., Committee Member



Dr. Debbie Rhea, Associate Dean
Harris College of Nursing & Health Sciences

May 2020

Signature: 
Endia Lindo (Apr 30, 2020)

Email: e.lindo@tcu.edu

Signature: 
Laura Green (May 1, 2020)

Email: lgreen@twu.edu

Signature:


Emily Lund (May 1, 2020)

Email: e.lund@tcu.edu

Signature: *Danielle Brimo*

Email: danielle.brimo@tcu.edu

ACKNOWLEDGMENTS

I would like to thank Dr. Brimo for the opportunity to partner in the research process and providing thoughtful expertise through every step. I would also like to thank Dr. Green, Dr. Lund, and Dr. Lindo for offering the guidance and critique necessary to complete this study. I would finally like to thank the Davies School of Communication Sciences and Disorders faculty and staff for their support over the last two years and for encouraging students to foster the creativity and critical thinking necessary to seek answers to their questions and contribute to the bigger conversations.

TABLE OF CONTENTS

Acknowledgements.....	ii
List of Figures.....	iv
List of Tables.....	v
I. Introduction.....	1
II. Review of Literature.....	2
III. Method.....	10
IV. Results.....	15
V. Discussion.....	20
VI. Limitations.....	23
VII. Future Directions.....	24
VIII. Conclusion	24
References.....	26
Appendix A.....	29
Abstract.....	52

LIST OF FIGURES

1. Comparing the Barriers Identified by SLPs and Teachers.....	20
--	----

LIST OF TABLES

1. Participants' Demographic Information.....	13
2. SLPs' and Teachers' Collaboration Experience Rating.....	16
3. SLPs' and Teachers' Identification of one another as Partners.....	17
4. SLPs' and Teachers' Significant Barriers Responses	18
5. SLPs' and Teachers' YES Responses to Non-significant Barriers.....	19

Introduction

Since the 2004 reauthorization of the Individuals with Disabilities Education Act, significant discussion has surrounded least restrictive environment and educational inclusion, which means students with disabilities are spending more time with typically developing peers in the classroom. As a result, conversations about alternative collaborative service delivery models have emerged as an avenue to support students within the classroom; however, the evidence for the effect of collaborative service delivery has been labeled ‘inadequate’ by a number of researchers (Cirrin et al., 2010; Archibald, 2017). One reason for the lack of evidence for these models is that a majority of the current studies review data and information from Speech-Language Pathologists (SLPs) only and not from other educators, such as general or special education teachers. A handful of studies exist exploring the perspectives of different professionals regarding specific service delivery or of SLPs perspectives on collaboration as a whole, but there is not an evidence base for a broader definition of collaboration from the perspective of both teachers and SLPs.

Providing services to students without considering broader educational contexts can result in educators and SLPs making decisions based on one view or domain. This model also limits the exchange of information from one professional to another to make informed decisions for their students. In a collaborative relationship, the classroom teacher offers experience in curriculum development, developmentally appropriate activities, and classroom management skills while the SLP brings knowledge of language development and language facilitation in a naturalistic and education context (Hadley, Simmerman, Long, & Luna, 2000). The members of this team each have unique and complementary skills which, if utilized cohesively, have the potential to form an incredibly well-rounded group of educators (Archibald, 2017). When

collaboration functions effectively, the teacher can provide input about curriculum and goals, ensuring generalizable academic relevance, and the SLP can provide information around the student's communication needs and specific concepts and strategies to increase overall classroom success (Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000). Therefore, the purpose of this study is to describe collaboration between SLPs and teachers who work in a school setting. This study aims to gather information about the teacher-SLP team-based collaborative potential, including individual perspectives from each profession about what works, what does not work, who in particular they would identify as partners, and the barriers to implementation from each profession's perspective.

Roles and Responsibilities of School-based Educators

Teachers and school-based SLPs, though there is theoretically some overlap of their knowledge base, have different roles and responsibilities. In 2010, the American Speech-Language-Hearing association published a position statement titled "Roles and Responsibilities of Speech-Language Pathologists in Schools." This document highlights six "critical roles" of the SLP who work in a school setting. Ensuring educational relevance, providing unique contributions to the curriculum, and highlighting language/literacy are three roles outlined that lend themselves to role ambiguity and would, therefore, be most effectively targeted within the context of a collaborative relationship with the classroom teacher. To some extent, each of these critical roles requires the SLP to be knowledgeable about the curriculum and educational standards of the students on her caseload while still providing intervention to target the students' individual needs. Simply put, these roles suggest an inherent collaboration model between the SLP and the classroom teacher. In fact, "collaboration" is specifically identified as SLPs' roles and responsibility according to the position statement (ASHA, 2010). SLPs can collaborate with

reading specialists, literacy coaches, special education teachers, various therapists, school psychologists, etc., but most notably ASHA (2010) states that “SLPs provide services to support a school instructional program...therefore, working collegially with general education teachers who are primarily responsible for curriculum and instruction is essential.”

Teachers rely on states and districts to define their roles and responsibilities within the classroom through annual evaluations. The Every Student Succeeds Act (2015) briefly describes the Highly Qualified Teacher, but ultimately grants the states and local school districts complete authority to define the specifics of a Highly Qualified Teacher. For example, one school district in Texas uses the Texas Teacher Evaluation and Support System (T-TESS) Rubric (2016) for annual evaluations. One section of this rubric addresses professional practices and responsibilities, which includes collaboration with colleagues. In order for a teacher to receive an ‘accomplished’ or ‘distinguished’ rating, the teacher must in some capacity engage collaboratively to enhance student learning, growth, and welfare; however, it does not state with who to collaborate with. Although this particular school district defines an ‘accomplished’ or ‘distinguished’ teacher in this manner, it is unclear whether this same standard is consistent across school districts in different states.

Ukrainetz and Fresquez (2003) surveyed teachers and speech-language pathologists on topics related to commonalities between school-based professions and instructional overlap. In regard to language as a specialty domain, a consistent theme throughout the interviews included SLPs being better able to describe the parts and divisions of language, such as syntax, semantics, and morphology-distinctions that are central to the role of an SLP- while teachers often confused the term “language” with “language arts,” which is not surprising considering the terms are closely related, especially in academic contexts. Ukrainetz and Fresquez (2003) summarized

these overlapping domains with the term “literate language”, where literacy is composed of reading and writing skills and language is composed of speaking and listening skills. The space “literate language” is the domain in which the roles become blurry and the teacher and SLP have the potential for a productive collaborative relationship.

Ehren (2000) addressed the issue of role ambiguity between the teacher and SLP. The key, Ehren suggests, is to differentiate classroom instruction from intervention. Instruction and intervention can be differentiated by identifying their unique purposes, the knowledge bases needed to implement, the techniques for learner engagement, the sequence of steps to implement, the individualization for students, the mastery of skills, and the opportunities for interaction with the content. While these distinctions exist, for the student with an impairment, both instruction and intervention are required to grasp the entirety of the curriculum. However, the definitions of separate, but complimentary roles, shared responsibility between the SLP and classroom teachers can lead to generalized and functional academic success for their students (Ehren, 2003).

Collaborative Service Delivery in Schools

Collaboration can be defined as a team-based approach with one or more professionals in order to achieve shared and agreed upon goals (Green, Chance, & Stockholm, 2019). Teachers and SLPs that work in schools would likely agree that they share the common goal of maintaining their roles and responsibilities individually as well as doing what they can in order to provide educational access to children in their classrooms and on their caseloads (Archibald, 2017). The terms “inclusion” and “classroom-based” have been used as reasons for utilizing a collaborative approach, but collaboration can be used in a broader sense to determine the degree to which school professionals are working together without referring to a singular service delivery approach. In this case, an SLP and teacher could be engaging in consistent

collaborative practice while the SLP is still removing students for a traditional pull-out intervention approach.

Models of Collaboration

The following descriptions and definitions will include several different service delivery models that utilize the expertise of more than one professional, thus making them collaborative in nature. Throughout the literature many of these models have been referred to in different terms so for the sake of maintaining a consistent terminology, service delivery methods will be grouped and discussed based on the location of intervention and the degree to which the SLP and teacher collaborate. These terms will be more descriptive based on these two principles and may not be consistent with language used in the literature. For this reason, the methods used in prior studies will be stated, described, and placed into one of the following categories: traditional pull-out, consultation, push-in individual, push-in small group, team teaching.

The most traditional method of service delivery is the traditional pull-out model. In this model, the SLP removes the students on her case load from their general education classroom and provides intervention appropriate to the child's goals individually, but more often in small groups. Based upon the definitions provided for this study, pull-out refers to service delivery in which no communication takes place between the SLP and the teacher. While it is possible that levels of collaboration can take place within pull-out models, for the purpose of this study, collaborative pull-out is defined as consultation. Consultation is a collaborative approach that still may utilize traditional pull-out service delivery but involves some level of communication between the SLP and the teacher. Consultation is by nature an indirect mode of intervention and may or may not be used in addition to another method based upon each student's academic and language goals. An example of the consultation model in action is Project S.H.A.R.P. (Sharing

Hope and Raising Performance) as described in a study completed by Achilles, Yates, and Freese (1991). In this program, “the SLP works with the classroom teacher by incorporating classroom work (e.g., vocabulary and themes) into the speech-language program” while the classroom teacher “uses worksheets and activities provided by the SLP to incorporate speech-language objectives in the classroom curriculum” (p. 154-155).

The next three methods discussed all take place within the classroom and are referred to as push-in models. In push-in models, the SLP is physically in the classroom and providing intervention to the student on his or her caseload either individually, in a small group setting, or in the context of the entire class. In a push-in individual scenario, the SLP would come into the classroom for a period of time and work with a single student on their caseload individually while incorporating intervention strategies to target his or her individual goals in the context of the classroom content. The push-in small group method is similar, but rather than working with an individual student, the SLP works with a small group of students. Not every student in the group must be on the SLP’s caseload based on the suggestion that the SLP offers a valuable perspective and an addition to classroom content that could benefit all students and not just students with impairments (Korth, Sharp & Culatta, 2009). The final model of collaborative service delivery is team teaching. In this approach, the SLP and the teacher will develop and teach a lesson plan with imbedded intervention to the full class. In this model, the teacher brings expertise in curricular planning and classroom management, and the SLP brings language intervention expertise that, as mentioned before, will benefit the class as a whole (Archibald, 2017; Throneburg, Calvert, Sturm, Paramboulkas, & Paul, 2000).

Effectiveness of Collaborative Models of Service

Theoretical support of collaborative approaches is based upon studies that verify the benefit of push-in and inclusive service delivery models. For example, Cirrin et al. (2010) reviewed five studies all of which aimed to determine the effect of different service delivery models on speech/language interventions for school-age children. The authors determined, according to the studies reviewed, that vocabulary growth was the only criterion in which collaborative classroom-based services exhibited significant gains compared to non-collaborative and pull-out conditions. No difference was determined across studies for language and literacy outcomes. The authors concluded that the current evidence base on service delivery models does not justify any broad conclusions about which models are preferable; however, intervention in the classroom (a natural setting) may facilitate generalization of new skills (Cirrin et al., 2000).

Similarly, Giralametto, Weitzmann, and Greenberg (2012) studied outcomes within a consultation model between early childhood educators and SLPs. In their study, early childhood educators were divided into a control group and an experimental group. The experimental group was trained to engage children in decontextualized talk, model print concepts, letter names, and sounds during shared reading and writing activities. Pre and post-test measures of these factors were then compared between each of the groups. The authors found that the educators that participated in the professional development seminar, as compared to the control group, used more skills considered to be foundational for later abstract thinking and reading comprehension skills.

In a survey on SLP perspective on classroom-based services, Beck and Dennis (1997) found that while both teachers and SLPs agreed on the benefit of classroom based intervention by keeping students in the classroom and also by providing peer models for social interactions, a majority of the respondents listed inadequate planning and communication time as a reason they

did not utilize this model. Similarly, both groups noted that the SLP's lack of ability to always target speech and/or language goals was another disadvantage to the model. SLPs listed lack of teacher support of classroom-based intervention as an additional deterrent. Although research has shown some empirical evidence that supports a collaborative classroom-based service delivery on student outcomes, in reality, SLPs in school settings continue to treat students in groups outside of the classroom (pull-out model) one to two times per week for 20-30 minutes (Brandel & Loeb, 2011).

To gather more information about reasons why SLPs were predominately using the pull-out model, Green et al. (2019) surveyed SLPs about inclusive service delivery. 344 SLPs responded to the 50-item online survey which consisted of survey and open-ended questions. The following results were found: 73% of the SLPs had received training of some sort in providing inclusion (or push-in) services. When asked for how many students on their caseload do they use an inclusion model, 84% responded that they served some with an inclusion model, 16% responded they served more than half with an inclusion model, and 64.5% reported that they "prefer the pull-out service delivery model" (p.6). While most of the SLPs reported having positive perceptions of inclusion success and support, still 60% did not feel that inclusion was effective for their caseload and that the planning and time constraints posed a challenge to implementation and treatment effectiveness. The authors determined the factors predicting SLP use and perception of an inclusion model. SLP-reported factors such as caseload size, training, teacher support, weekly meetings with teachers, and administrative support predicted use, positive perception, and negative perception of an inclusion model. They found no significant differences between school setting (i.e., preschool, elementary, secondary, elementary and secondary, and preschool and elementary) and use of the inclusion model. Lack of training was

not a predictor of use, positive perception, or negative perception of the inclusion model, but SLPs who responded that they had not received training, a smaller proportion perceived teacher support. In the free response portion, SLPs were asked “three things [they] like about the inclusion model,” “three challenges faced when providing inclusion services,” and “the three most important keys to success for implemented classroom-based services.” The three most frequency reported “things [they] like” were collaboration and relationships with teachers, observing and working with students in a natural setting, and facilitation of generalization and carryover. The “biggest challenges” included time constraints/planning and preparation time, teacher collaboration and communication, and disruptions in the classroom. Finally, SLPs reported teacher collaboration, planning and communication, planning and preparation time, and flexibility were the most frequently mentioned “keys to success.”

Purpose

The purpose of this study was to describe the collaboration and the resulting service delivery models that Speech-Language Pathologists are utilizing with teachers in a school setting as well as determine the differing perspectives between SLPs and teachers in regard to collaborative service delivery. The following research questions will be addressed: (1) Do SLPs use a non-collaborative service delivery model (i.e., pull-out without *teacher communication apart from the ARD meeting*)?, (2) What collaborative service delivery models are being used by SLPs with teachers?, (3) Do SLPs rate use of a collaborative service delivery model more positively than teachers?, (4) Do SLPs and teachers identify one another as collaborative partners differently?, and (5) How do the perceived barriers of collaboration differ between SLPs and teachers?

It is hypothesized that results will show that SLPs are utilizing the traditional pull-out service delivery model rather than utilizing a collaborative service delivery model. There is limited evidence of teachers' perspectives on the roles of SLPs and the potential of a collaborative partnership between the two professions. The results of this study will help to support future research in collaboration among school-based professionals.

Method

Recruitment

School-based SLPs and teachers were recruited from school districts across the country. Contact was made with lead SLPs and/or special education coordinators in districts familiar to the authors. The survey link was also distributed on social media platforms dedicated to SLPs and teachers as well as posted within American Speech Language Hearing Association special interest group platforms related to the area of study. This study was approved by the Institutional Review Board at Texas Christian University. A description of the study in an e-mail or social media post described the web-based survey. The description included the purpose of the survey, the potential participants, the institutional review board waiver and the length of the survey (approximately 15 minutes) and ensured anonymity for those completing the survey. The description also included instructs on how to forward and further distribute the survey to the SLPs and teachers in their districts. Following the original distribution and posts, reminder messages were sent. The survey remained open for 14 weeks.

Before official distribution of the completed survey began, two pilot-studies were distributed. One was distributed to three school-based SLPs and the other was distributed to three general education teachers. This pilot included versions of the survey questions that addressed the relevant research questions. Following each question was a free-response space

with a request for feedback on each of the questions. The pilot participants were asked to provide feedback on survey questions that were unclear, that could be reworded, or that could be removed or added. Most of the feedback from the pilot study addressed wording and question order. The appropriate adjustments were made before distribution of the final survey. One such change included the addition of a question regarding bilingualism. That is, the question asked whether the person answering the survey was bilingual as well as whether the majority of the population they serve is bilingual. Another change included the clarification of wording on several questions.

Survey

Two final surveys were made available online through an anonymous link. One survey was designated for teachers and the other for SLPs. Both surveys began with a binary consent to participate. If consent was given, the survey continued. If consent was not given, the survey was terminated. The survey was designated for teachers included 11 demographic questions regarding education, work status, classroom type and size, and language proficiency. These question types included 8 multiple choice questions and 3 free-response questions. The rest of the survey was comprised of 19 questions addressing the topic of collaboration with other professionals who work in schools. These questions included seven multiple choice questions, four yes-no questions, and eight free-response questions. Three of the free response questions were related to the role of the SLP and how SLPs and teachers could support one another. The other five free-response questions were followed by multiple choice or yes-no questions as opportunities to further explain the reasoning for answers provided. Teachers were not required to answer the follow-up questions to complete the survey.

The SLP-designated survey included 14 demographic questions. The questions on the SLP survey that were not on the teacher survey included questions about caseload versus workload differentiation and identification of individual SLP role (treatment or assessment). This section was comprised of 11 multiple choice questions and 3 free response questions. The rest of the survey included questions representative of the research questions above. The collaboration section began with vocabulary and definitions of service delivery models that were used through the SLP survey. See Appendix A for the complete version of the questionnaire.

Participants

One-hundred thirty-five SLPs and one-hundred teachers opened the survey but completed survey data was recorded from 87 SLPs and 77 teachers, yielding a 64.8% completion rate. Survey data was reported from twenty-eight states. Eighty participants were from Texas (49%). Eighteen participants were from Tennessee. Between one and five participants reported data from the following states: Alabama, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Vermont, Washington, and Wisconsin. In regard to language proficiency, 91% of SLPs (n=79) categorize themselves as monolingual while 9% (n=8) categorize themselves as bilingual. Eighty-five percent (n=74) of SLPs reported the majority (over 50%) of their caseload was monolingual while 35% (n=13) reported that the majority of their caseload was bilingual. Ninety-one percent (n=69) of teachers categorize themselves as monolingual while 9% (n=7) categorize themselves as bilingual. Ninety-three percent of teachers (n=70) categorize the majority of their class as being categorized as monolingual while 7% (n=5) of teachers report the majority of their class as being best categorized as bilingual. See Table 1 for more demographic information. Ninety-six-point

five percent of SLPs (n=84) reported that their job involves both assessment and intervention, while 3.5% (n=3) that their job is primarily only to do intervention. There were 0% (n=0) of SLP respondents whose job was only assessment.

Table 1
Participants' Demographic Information

SPEECH-LANGUAGE PATHOLOGISTS				TEACHERS			
	Frequency	Percent		Frequency	Percent		
Credentials				Credentials			
Bachelors	1	1.14%		Bachelors	39	52.70%	
Masters	81	93.10%		Masters	28	37.84%	
PhD	3	3.44%		PhD	5	6.76%	
Clinical Doctorate	1	1.14%		Did not report	2	2.70%	
Did not report	1	1.14%					
Work Setting				Work Setting			
Preschool only	4	4.60%		Preschool only	2	2.70%	
Elementary only	12	13.79%		Elementary only	16	21.62%	
Middle School only	2	2.30%		Middle School only	17	22.97%	
High school only	3	3.45%		High school only	18	24.32%	
Primary only	30	34.48%		Primary and Secondary	22	29.73%	
Secondary Only	33	37.93%					
Primary and Secondary	3	3.45%					
Number of Years Employed				Number of Years Employed			
<1	1	1.14%		<1	0	0.00%	
1 to 5	23	26.43%		1 to 5	17	22.97%	
6 to 10	22	25.29%		6 to 10	13	17.57%	
11 to 20	18	20.69%		11 to 20	25	33.78%	
21 to 30	14	16.09%		21 to 30	12	16.22%	
30+	8	9.20%		30+	7	9.46%	
Did not report	1	1.14%					
Received Collaboration Training				Received Collaboration Training			
Yes	39	44.83%		Yes	49	66.21%	
No	48	55.17%		No	26	35.14%	
Caseload Size				Professional Role			
<20	5	5.75%		Gen Ed	21	28.38%	
21-40	20	23.00%		Special Ed	39	52.70%	
41-60	40	45.98%		Specialist	14	18.92%	
61-80	15	17.24%					
80+	6	6.90%					
Did not report	1	1.14%					

Analysis

The data was analyzed using descriptive and non-parametric chi-square analyses to answer the research questions. Research questions 1 and 2 were analyzed descriptively. Descriptive statistics were used to identify what percentage of the sample of SLPs used some collaborative approach, what collaborative service delivery models were being used, and which goals SLPs identified had the most potential for collaboration with another professional at the school, such as the teacher. Questions 3, 4, and 5 were analyzed using non-parametric chi square analyses to assess the relationship between group (e.g., teacher or SLP).

To answer question 5, a content analysis, similar to the analysis completed by Green et al. (2019) was completed on open-ended responses from both groups regarding barriers (Hsieh & Shannon, 2005). This process involved both authors analyzing responses to identify themes that commonly appeared in the responses (i.e., time, personalities, role ambiguity, etc.). The initial list of 9 themes were unwillingness, district or campus related issues, time, lack of awareness of roles and responsibilities, lack of training on collaboration, communication, personality, lack of follow-through, and overly stressed. Once the themes were established, the authors separately sorted the responses into the appropriate themes. For open-ended responses that included more than one theme, there was a tally added to each appropriate theme. If the response suggested one theme in a variety of ways (e.g., scheduling, common planning periods, and large caseloads all would be considered “time” and would only be counted as one barrier under the theme “time”). The authors separately tallied each free response into respective themes. An additional theme of “other” was added for responses that did not fit into any of the above themes but did not constitute the addition of a new theme. Only three responses over all fell into the category of “other.” Following the separate tallying, the authors compared scores and 69.5% agreement was

calculated. Each response that the authors originally code in agreement was discussed until 100% agreement was reached. Further analysis revealed two consistent differences in discrimination of the follow two pairs of themes: time and district or campus related issues and unwillingness and personality. The authors recognized this pattern and generated definitions for each theme. If a response referenced being very busy, short on time, or trouble scheduling, the response was coded as time, however, a respondent's answer referenced time but was in response to a high caseload demand or class size, being on multiple campuses, or lack of support from leadership it was coded as district of campus related issues. For example, "our schedules did not align" was coded as time while "administration do not understand logistic constraints when assigning and scheduling students" was coded as district or campus related issues. Similarly, if a respondent's answer used the word "unwilling" or referenced a professional's response specifically to collaboration, it was coded as unwilling. The authors recognized that this code could be interpreted as personality as well, it was determined that responses that received a personality code were in reference to a characteristic being described that could apply more broadly than to just responses to collaboration. For example, "not willing to collaborate or compromise" is coded as unwilling while "resistant to change" and "laziness" would be coded as personality.

Results

(1) Do SLPs use a non-collaborative service delivery model (i.e., pull-out without *teacher communication apart from the ARD meeting*)? (2) What collaborative service delivery models are being used by SLPs with teachers?

SLPs reported using non-collaborative and collaborative service delivery models.

Although 89.7% (n=78) of the SLPs reported using a non-collaborative service delivery such as

pull-out, only 6.9% (n=6) reported pull-out to be the *only* service delivery model utilized. In contrast, 10.3% (n=9) reported not using pull-out at all during the 2018-2019 academic year. Ten percent (n=9) of SLPs reported using all service delivery models in the 2018-2019 academic year, which included pull-out, pull-out using classroom materials, consultation, push-in with one individual, push-in with a small group, and team teaching. The most popular collaborative service delivery model was consultation. Seventy-two percent (n=63) of SLPs reported using consultation during the 2018-2019 academic year. Push-in with a group was utilized more often (56.3%; n=49) than push-in with an individual (43.7%; n=38), but both were utilized more often than team teaching. Team teaching was the least-utilized service delivery model with only 29.8% (n=26) of respondents reporting using it during the 2018-2019 academic year.

(3) Do SLPs rate experiences with collaboration more positively than teachers?

There was a significant association between group (SLP and teacher) and positive experience with collaboration ($\chi^2(1) = 18.32, p < .001$) with a medium effect determined by Cramer's V ($\phi_c = .336$), such that more teachers rated a positive collaboration experience when compared to SLPs. See Table 2 for the respective counts.

Table 2
SLPs' and Teachers' collaboration experience rating
Survey Question: Which of the following best describes your experience with collaboration?

	SLP	Teacher	Total
No			
Count	28	4	32
Expected Count	17.2	14.8	32.0
% within response	87.5%	12.5%	100.0%
% within group	32.2%	5.3%	19.8%
% of Total	17.3%	2.5%	19.8%
Stand. Residual	2.6	-2.8	
Yes			
Count	59	71	130
Expected Count	69.8	60.2	130.0
% within response	45.4%	54.6%	100.0%
% within group	67.8%	94.7%	80.2%

Total	% of total	36.4%	43.8%	80.2%
	Stand. Residual	-1.3	1.4	
	Count	87	75	162
	Expected Count	87.0	75.0	162.0
	% within response	53.7%	46.3%	100.0%
	% within group	100.0%	100.0%	100.0%
	% of total	53.7%	46.3%	100.0%

In the total sample (n=164), 67.8% (n=59) of SLPs rated their experience with collaboration positively whereas 94.7% (n=71) of the teachers rated their experience positively. Participants that did not answer this question in the survey were not included in the analysis (n=2). To analyze the data related to experience with collaboration, the “neutral” category was combined with the “not positive category.” To ensure that this did not affect the significance of the chi-square analysis, the data were re-analyzed excluding the “neutral” category data, and the results were the same. It also should be noted that SLPs and teachers were asked to *generally* rate their experience with collaboration and were not asked to rate their experience with collaboration with each other specifically. Teachers, not SLPs, were asked specifically to rate their experience collaborating with SLPs, and while most (77%, n=57) teachers reported a positive experience with collaboration, the number of “not positive” responses increased from 0% (n=0) when asked to *generally* rate collaboration to 16% (n=12) when asked to rate collaboration *specifically* with an SLP.

(4) Do SLPs and teachers identify one another as collaborative partners differently?

There was a significant association between group (SLP and teacher) and identification of one another as a collaborative partner ($\chi^2(1) = 6.855, p = .001$) with an effect size between small and medium determined by Cramer’s V ($\phi_c = .204$), such that SLPs identified teachers as collaborative partners more often than teachers identified SLPs as collaborative partners. See Table 3.

Table 3
 SLPs' and Teachers' identification of one another as partners
 Survey question: Which of the following do you identify as a collaborative partner?

	SLP	Teacher	Total
No			
Count	9	20	29
Expected Count	15.4	13.6	29.0
% within response	31.0%	69.0%	100.0%
% within group	10.3%	26.0%	17.7%
% of Total	5.5%	12.2%	17.7%
Yes			
Count	78	57	135
Expected Count	71.6	63.4	135.0
% within response	57.8%	42.2%	100.0%
% within group	89.7%	74.0%	82.3%
% of total	47.6%	34.8%	82.3%
Total			
Count	87	77	164
Expected Count	87.0	77.0	164.0
% within response	53.0%	47.0%	100.0%
% within group	100.0%	100.0%	100.0%
% of total	53.0%	47.0%	100.0%

Eighty-nine percent of SLPs (n=78) identified teachers as a collaborative partner while 74% (n=57) of teachers identified the SLP as a collaborative partner.

(5) How do the perceived barriers of collaboration differ between SLPs and teachers?

There was a significant association between group (SLP and teacher) and specific barriers of collaboration. There was a significant association between group (SLP and teacher) and identification of Roles and Responsibilities ($\chi^2(1) = 5.661, p < .02$) and Training ($\chi^2(1) = 3.918, p < .05$), such that SLPs were more likely to identify both of these as barriers. Effect size was measured using Cramer's V for each of the barriers. While the associations between the groups and the themes Roles and Responsibilities and Training were significant, they were both shown to have a small effect ($\phi_c < .1$). See Table 4 for significant response counts.

Table 4

SLPs' and Teachers' significant barriers responses

Survey Question: What factors do you perceive as being barriers to collaboration?

		Roles_Resp		Training		Total
SLP		YES	NO	YES	NO	
	Count	74	13	78	9	87
	Expected Count	78.5	8.5	81.2	5.8	87.0
	% within response	85.1%	14.9%	89.7%	10.3%	100.0%
	% within group	50.0%	81.3%	51.0%	81.8%	53.0%
	% of Total	45.1%	7.9%	47.6%	5.5%	53.0%
Teacher						
	Count	74	3	75	2	77
	Expected Count	69.5	7.5	71.8	5.2	77.0
	% within response	96.1%	3.9%	97.4%	2.6%	100.0%
	% within group	50.0%	18.8%	49.0%	18.2%	47.0%
	% of total	45.1%	1.8%	45.7%	1.2%	47.0%
Total						
	Count	148	16	153	11	164
	Expected Count	148.0	16.0	153.0	11.0	164.0
	% within response	90.2%	9.8%	93.3%	6.7%	100.0%
	% within group	100.0%	100.0%	100.0%	100.0%	100.0%
	% of total	90.2%	9.8%	93.3%	6.7%	100.0%

There was not a significant association between group and identification of Time, Campus and District Related Issues, Willingness, and Personality as barriers to collaboration. SLPs and teachers reported these as barriers to collaboration at a similar rate. Figure 1 illustrates a comparison of the significant and non-significant barriers identified between groups. See Table 5 for non-significant response counts.

Table 5

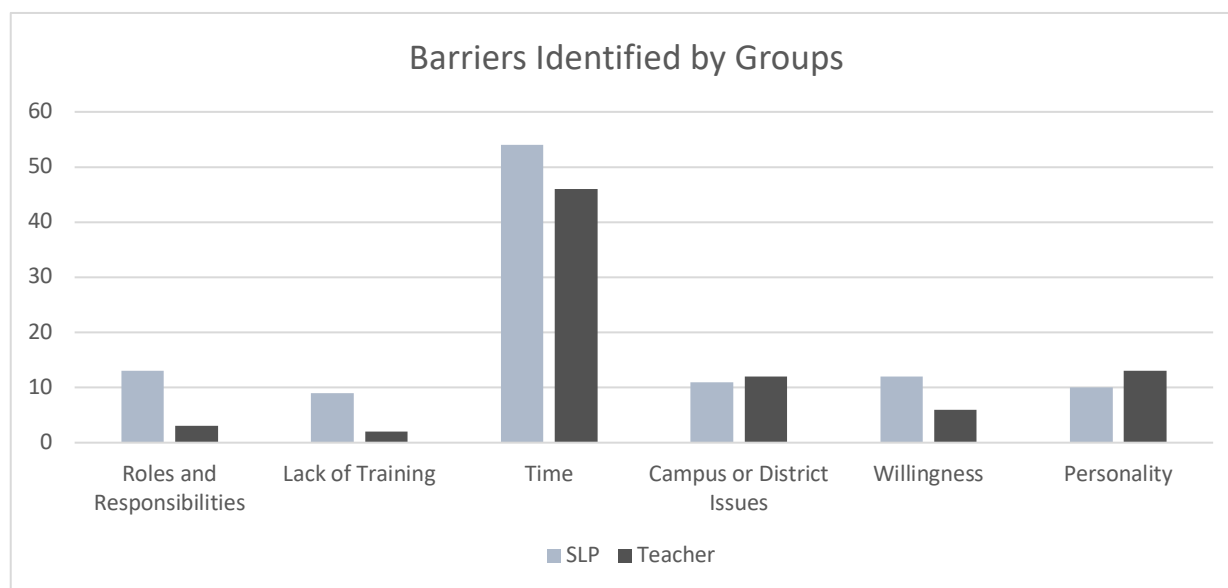
SLPs' and Teachers' YES responses to non-significant identified barriers

Survey Question: What factors do you perceive as being barriers to collaboration?

		Time	Dist/Campus	Willingness	Personality
SLP					
	Count	54	11	12	9
	Expected Count	53.0	12.2	9.5	11.7
	% within response	62.1%	12.6^	13.8%	10.3%
	% within group	54.0%	47.8%	66.7%	40.9%
	% of Total	32.9%	6.7%	7.3%	5.5%
Teacher					

	Count	46	12	6	13
	Expected Count	47.0	10.8	8.5	10.3
	% within response	59.7%	15.6%	7.8%	16.9%
	% within group	46.0%	52.25%	33.3%	59.1%
	% of total	28.0%	7.3%	3.7%	7.9%
Total	Count	100	23	18	22
	Expected Count	100.0	23.0	18.0	22.0
	% within response	61.0%	14.0%	11.0%	13.4%
	% within group	100.0%	100.0%	100.0%	100.0%
	% of total	61.0%	14.0%	11.0%	13.4%

Figure 1
Comparing the barriers identified by SLPs and Teachers



In order to account for the assumptions to complete a chi-square analysis, each theme required at least 5 data points. For this reason, a chi-square was not completed for the themes Communication, Lack of Follow-through, Stress, Other, and None.

Discussion

The purpose of this study was to describe collaboration between SLPs and teachers who work in a school setting. Nearly all SLPs reported using the pull-out service delivery model in addition to using other service delivery models with varying degrees of collaborative

components. These results are consistent with evidence in previous literature of the preference to use the pull-out model (e.g., Brandel & Loeb, 2011; Green et al., 2019). Although both SLPs and teachers rate their collaboration experience as positive, there was a significant association between positive experience and group. Teachers were more likely to rate their collaboration experiences as positive when compared to SLPs. Similarly, SLPs and teachers differ in their identification of one another as collaborative partners. SLPs identified teachers as collaborative partners more than teachers identified SLPs as collaborative partners. Finally, SLPs and teachers similarly identified time, willingness, district and campus related issues, and personality as being barriers to collaboration; however, SLPs identified a lack of awareness of roles and responsibilities and a lack of training as barriers to collaboration significantly more than teachers. This is consistent with the suggestion made by Green et al., (2019) in regard to teacher factors in which they reported interprofessional practice may be a useful tool in building teacher awareness. This suggestion is echoed in studies that suggest that lack of awareness of roles and lack of understanding the value an SLP can offer the teacher and vice versa impacts the collaborative relationship (Elksnin & Capilouto, 1994; Ehren, 2000).

The themes reported by teachers and SLPs as barriers in this study were comparable to the themes discussed by Green and colleagues (2019). For example, factors such as case load size and weekly meetings from Green et al. (2019) were similar to the theme of time that was recorded in this study. Factors related to time and availability were reported by the SLPs in both studies, and by the teachers in this study. Further, the following parallels were also evident: teacher support paralleled willingness and administrative support paralleled district and campus related issues. Lack of training reported by SLPs in the current study was not consistent with Green et al. (2019). The design of this study allowed for comparison of the two groups to

determine whether certain factors were more often identified by teachers versus SLPs and vice versa. In the previous study, only SLPs were surveyed. Similar to Green et al. (2019), training was not a commonly mentioned barrier when compared to barriers such as time, which was the most often reported factor by both SLPs and teachers. Although training was not a commonly reported barrier, it is meaningful for this study because it was reported significantly more by SLPs than it was by teachers. This is evidence of a differing perspective between these two professionals that was not reported in previous studies of collaboration in schools.

The most frequently reported barriers can be organized into two categories: awareness (training and roles and responsibilities) and availability (time, campus and district issues, willingness, and personality). Awareness can be defined as either the awareness of opportunities for collaboration, or the awareness of the potential for collaboration between professionals. Availability can be defined by scheduling capacity based on workloads of both groups and expectations of individual campuses or districts or by relational availability, which could be based on factors like willingness and personality.

Based upon the results, it appears that teachers and SLPs are in full agreement that availability is a significant barrier to collaboration. This is to be expected considering the high caseloads, classroom sizes, testing requirements and scheduling difficulties that are factors for every education professional (Brandel & Loeb, 2011). However, SLPs reported that awareness was a barrier to collaboration more than teachers. Awareness and the differences in identification of one another as collaborative partners suggests that SLPs believe that teachers are not aware of the SLPs role in educational curriculum (i.e., academic achievement) and that teachers are not aware of the potential for a collaborative partnership. It is possible that SLPs that identified a

lack of training as being a barrier believe that if both professionals were trained in collaboration, more positive collaboration could be utilized.

This evidence also could explain why SLPs were more likely to identify the teacher as a collaborative partner than the teacher identifying the SLP as a collaborative partner. The combination of differences in awareness and identification are connected. If there is a lack of training for both professionals regarding the potential partnership then it would be expected that the teacher may view an additional collaborative partnership as burdensome or too time consuming. Many teachers when asked what they believed the role of the SLP to be, answered by saying “to address speech needs,” “to provide pull-out services,” and “to provide services to aid with impaired communication.” Although these responses are true to some extent, they highlight a gap in awareness of the roles and responsibilities of the school-based SLP, and thus, the value an SLP could add to the classroom if an appropriate partnership were to be established and utilized.

Limitations

Several limitations should be noted. The participant sample was small. Given that the majority of the respondents were from Texas, it is likely that the roles and responsibilities of teachers differ from state to state. Similarly, given that state education curriculum varies between states, different states may have different expectations of the role of the SLP in certain curricular areas. For example, at the American Speech Language and Hearing Association Convention in 2019, one SLP from Florida reported that in the schools, phonological awareness is perceived to be a literacy skill that is the responsibility of the teacher, and therefore, would not be a skill that the SLP would work on with a student. This variability given the small sample size across the country could impact the way professionals residing in certain areas perceive the potential to

collaborate across certain skills, and thus, the way they answered the questions about the potential for and effectiveness of collaborative.

Future Directions

This data suggests that there is a need for increased opportunity for interprofessional training in collaboration at school settings. Teachers and SLPs communicated that they had positive collaborative experiences with one another but differ in their identification of one another as collaborative partners. This is evidence of a potential missed opportunity for team-based intervention to support generalization.

Future research also should aim to determine the frequency of which collaborative models are being used and the efficacy of such treatment strategies. The participants in this study reported from two different perspectives (i.e., SLPs and teachers) of collaboration and their general experiences with the models. This study reported generally whether certain models were familiar to the professionals but not the extent at which they were used and used consistently throughout the academic year. For example, a SLP that used a push-in service delivery model with only one student, which required extensive collaboration, would still have been coded into a “collaborative professional” even if the majority of her or his caseload was not served in this manner. Similarly, consistency of training in collaboration for both groups of professionals suggests a missed opportunity. Future studies should analyze the efficacy of professional development trainings on utility and practicality of collaborative service delivery models.

Conclusion

This study described the collaborative service delivery models being utilized by SLPs and teachers in a school setting, as well as determined the differing perspectives between SLPs and teachers in regard to collaboration. The results suggested that there is still progress that can be

made in the utility of collaborative service delivery methods in schools. This study reported a difference between SLPs and teachers in regard to partnership and barriers. This is a promising first step, and future research should be completed to determine how group differences and barriers can be eliminated in order to bridge the gap between SLPs' and teachers' perspectives.

References

- Achilles, J., Yates, R. R., & Freese, J. M. (1991). Perspectives from the field: collaborative consultation in the speech and language program of the dallas independent school district. *Language, Speech, and Hearing Services in Schools, 22*, 154-155.
- Archibald, L. M. (2017). SLP-educator classroom collaboration: A review to inform reason-based practice. *Autism & Developmental Language Impairments, 2*, 1-17.
- American Speech-Language-Hearing Association. (2010). Roles and responsibilities of Speech-Language Pathologists in schools. *Ad Hoc Committee on the Roles and Responsibilities of the School-Based Speech-Language Pathologist*.
- Beck, A.R., Dennis, M. (1997). Speech-language pathologists' and teachers' perceptions of classroom-based interventions. *Language, Speech, and Hearing Services in Schools, 28*, 146-153.
- Brandel, J., & Loeb, D. F. (2011). Program intensity and service delivery models in the schools: SLP survey results. *Language, Speech, and Hearing Services in Schools, 42*, 461-490.
- Cirrin, F. M., Schooling, T. L., Nelson, N. W., Diehl, S. F., Flynn, P.F., Staskowski, M., ... Adamczyk, D. F. (2010). Evidence-based systematic review: effects of different service delivery models on communication outcomes for elementary school-age children. *Language Speech and Hearing Services in Schools, 41(3)*, 233.
- Ehren, B. (2000). Maintaining a therapeutic focus and sharing responsibility for student success: keys to in-classroom speech-language services. *Language, Speech, and Hearing Services in Schools, 31*, 219-229.

- Elksnin, L. K. & Capilouto, G. J. (1994). Speech-language pathologists' perceptions of integrated service delivery in school settings. *Language, Speech, and Hearing Services in Schools, 25*, 258-267.
- Every Student Succeeds Act of 2015, Pub. L. No. 114-195. § 114 Stat. 1177 (2015-2016).
- Giralametto, L., Weitzmann, E., & Greenberg, J. (2012). Facilitating emergent literacy: efficacy of a model that partners speech-language pathologists and educators. *Language, Speech, and Hearing Services in Schools, 21*, 47-63.
- Green, L., Chance, P., & Stockholm, M. (2019). Implementation and perceptions of classroom-based service delivery: a survey of public school clinicians. *Language, Speech, and Hearing Services in Schools, 1-17*.
- Hadley, P. A., Simmerman, A., Long, M., & Luna, M. (2000). Facilitating language development for inner-city children: experimental evaluation of a collaborative, classroom-based intervention. *Language, Speech, and Hearing Services in Schools, 31*, 280-295.
- Hsieh, H., & Shannon, S. E.. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*, 1277-1288.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Korth, B., Sharp, A., Culatta, B. (2009). Classroom modeling of supplemental literacy instruction. *Communication Disorders Quarterly, 31*(2), 113-127.
- Texas Teacher Evaluation and Support System (2016). Texas Education Agency.
- Throneburg, R. N., Calvert, L. K., Sturm, J. J., Paramboukas, A. A., & Paul, P. J. (2000). A Comparison of Service Delivery Models: Effects on Curricular Vocabulary Skills in the School Setting. *American Journal of Speech-Language Pathology, 9*(1), 10.

Ukrainetz, T. A., Fresquez, E. F. (2003). "What isn't language?": A qualitative study of the role of the school speech-language pathologist. *Language, Speech, and Hearing Services in the Schools*, 34, 284-298.

Appendix A

SLP Collaboration in Schools

Start of Block: Demographic Information

Q1 My highest level of education is

- Bachelors (1)
 - Masters (2)
 - Ph.D. (3)
-

Q2 I work as a Speech-Language Pathologist in the schools

- Full-time (40+ hours per week) (1)
 - Part-time (less than 40 hours per week) (2)
-

Q3 I was hired

- directly by a school district (1)
 - by a third party that contracts to school districts (2)
-

Q4 I have worked as an SLP for

- 0-1 years (1)
 - 2-5 years (2)
 - 6-10 years (3)
 - 11-15 years (4)
 - 16-25 years (5)
 - 26+ years (6)
-

Q7 I have worked as an SLP in the schools for

- 0-1 years (1)
 - 2-5 years (2)
 - 6-10 years (3)
 - 11-15 years (4)
 - 16-25 years (5)
 - 26+ years (6)
-

Q8 How many campuses do you currently serve?

▼ 1 (1) ... 3+ (3)

Q9 What grade levels do you currently serve?

- Preschool (1)
- Elementary (K-5th or K-6th) (2)
- Middle School (7th and 8th) (3)
- High School (9th-12th) (4)
-

Q10 My job is primarily

- to only assess (1)
- to only treat (2)
- to both assess and treat (3)
-

Page Break

Q34 Please use the following definitions to answer the question below

Caseload model: caseload number is determined by the number of students who require services divided by the number of employed SLPs for that campus

Workload model: caseload number is determined by services, settings, group sizes, and tasks necessary to meet with students' IEP goals to fulfill the implementation of IDEA and best practices

Q12

I primarily use a

- caseload model (1)
 - workload model (2)
-

Q32 My caseload size is approximately

- 1-15 (1)
 - 16-30 (2)
 - 31-45 (3)
 - 46-60 (4)
 - 61-75 (5)
 - 76-90 (6)
 - 91-105 (7)
 - 106-120 (8)
-

Q14 Special populations I serve include

- Speech Impairment (1)
- Autism Spectrum Disorder (2)
- Dyslexia (3)
- Intellectual Disability (4)
- Specific Learning Disorder (5)
- Other developmental disability (6)
- Other (7) _____

Display This Question:

If Special populations I serve include = Speech Impairment

Q34 The specific types of Speech Impairment represented on my caseload include

- Specific language impairment, Expressive/receptive language disorder, Specific language disorder, Language learning disability (1)
- Speech sound impairment (2)

Q35 What percentage of children on your caseload fall into each of the following diagnostic categories? The total should equal 100%

Language impaired : _____ (1)

Speech Impaired : _____ (2)

Other diagnosis : _____ (3)

Total : _____

Q15 I am best categorized as

- Monolingual (1)
- Bilingual (2)
- Multilingual (3)
-

Q16 The majority (more than 50%) of my caseload is best categorized as

- Monolingual (1)
- Bilingual (2)
- Multilingual (3)

End of Block: Demographic Information

Start of Block: Collaboration

Page Break

Q32 Please use the following descriptions and definitions to answer the questions below.

Service delivery models: varied interventions options in regard to the physical location of intervention or the professional providing the intervention

Consultation: indirect intervention where teachers and SLPs are equal with respect to decision making, exchanging advice and expertise, and implementing language and learning support to achieve common goals (Hartas, 2004).

Push-in Individual: the SLP comes into the classroom for a period of time and work with a single student on their caseload individually during stations or centers time. The SLP can work individually with the student using intervention strategies to target his or her individual goals while incorporating content that is being taught in the classroom.

Push-in Small Group: the SLP comes into the classroom for a period of time and work with a single student on their caseload within a group, or a group of students on their caseload, or a group of students in need of more individualized attention during stations or centers time. The

SLP can work with this group using intervention strategies to target their individual goals or needs while incorporating content that is being taught in the classroom.

Team teaching: the SLP and teacher will either individually develop and teach a lesson plan with imbedded intervention to the full class, or the SLP and teacher collaboratively develop a lesson plan with embedded intervention strategies for the teacher to teach the full class.

Q68 Which of the following best describes your service delivery model?

- pull-out: sessions are held in an isolated room with no use of classroom or curricular material (1)
- pull-out: sessions are held in an isolated room with communication with the teacher and/or use of classroom material in intervention (2)
- push-in: some degree of intervention is done within the child's classroom (3)

Page Break

Display This Question:

If Which of the following best describes your service delivery model? = push-in: some degree of intervention is done within the child's classroom

- Q69 Rank the service delivery models you use from most often used to least often used
- _____ I provides treatment to one child in the classroom during the teacher's whole group instruction time (1)
- _____ I provide treatment to one child in the classroom during the teacher's small group station or centers time (2)
- _____ I provide treatment to a small group small group (2-5) during your small group stations or centers (3)
- _____ I provides treatment to all students in the class using a lesson plan I developed (4)
- _____ I develop a lesson plan with the teacher and we team-teach all students in the class (5)
- _____ The teacher and I consult one another on best practices for the child while he or she is in the classroom (6)

Display This Question:

If Which of the following best describes your service delivery model? = pull-out: sessions are held in an isolated room with communication with the teacher and/or use of classroom material in intervention

Or Which of the following best describes your service delivery model? = push-in: some degree of intervention is done within the child's classroom

Q70 To what extent do you use classroom curriculum in intervention? Curriculum can include, but is not limited to text books, class worksheets, classroom topics, spelling words, etc.

I do not use classroom curriculum at all. (1)

I reference curriculum-based topics and/or strategies to plan and provide intervention. For example, I reference state or national curriculum standards or ask the teacher for topics taught in class. (2)

I use classroom-based materials to plan and provide intervention. For example, I use reading passages, spelling words, writing assignments, and/or vocabulary words from class as intervention materials. (3)

I provide the teacher with strategies and/or materials to support the children on my caseload during classroom instruction. For example, I provide the teacher with information on visuals for her to use during whole group instruction. (4)

If other, please describe your use of classroom curriculum in intervention (5)

Q71 Which of the following would you identify as collaborative partners?

- General education teacher (1)
 - Reading specialist (2)
 - School psychologist (LSSP) (3)
 - Other special education professional (4)
 - Other (5) _____
-

Q72 Which of the following best describes your experience with collaboration?

- Positive experience (1)
 - Neutral experience (2)
 - Negative experience (3)
-

Q73 Which of the following best describes your perceived effectiveness of professional collaboration for the students you serve?

- Very effective (1)
 - Moderately effective (2)
 - Not effective at all (3)
-

Page Break _____

Q74 Please use the following descriptions and definitions to answer the questions below.

Service delivery models: varied interventions options in regard to the physical location of intervention or the professional providing the intervention

Consultation: indirect intervention where teachers and SLPs are equal with respect to decision making, exchanging advice and expertise, and implementing language and learning support to achieve common goals (Hartas, 2004).

Push-in Individual: the SLP comes into the classroom for a period of time and work with a single student on their caseload individually during stations or centers time. The SLP can work individually with the student using intervention strategies to target his or her individual goals while incorporating content that is being taught in the classroom.

Push-in Small Group: the SLP comes into the classroom for a period of time and work with a single student on their caseload within a group, or a group of students on their caseload, or a group of students in need of more individualized attention during stations or centers time. The SLP can work with this group using intervention strategies to target their individual goals or needs while incorporating content that is being taught in the classroom.

Team teaching: the SLP and teacher will either individually develop and teach a lesson plan with imbedded intervention to the full class, or the SLP and teacher collaboratively develop a lesson plan with embedded intervention strategies for the teacher to teach the full class.

Q75 Rank these treatment targets from most often targeted to least often targeted

- _____ Isolated speech sounds (1)
 - _____ Phonological processes (2)
 - _____ Phonological awareness (3)
 - _____ Grammatical structures (4)
 - _____ Semantics (5)
 - _____ Pragmatics (6)
 - _____ Fluency (7)
 - _____ Reading comprehension (8)
 - _____ Writing (9)
 - _____ Spelling (10)
 - _____ Word-level reading (11)
-

Q76 Please use the following descriptions and definitions to answer the questions below.

Service delivery models: varied interventions options in regard to the physical location of intervention or the professional providing the intervention

Consultation: indirect intervention where teachers and SLPs are equal with respect to decision making, exchanging advice and expertise, and implementing language and learning support to achieve common goals (Hartas, 2004).

Push-in Individual: the SLP comes into the classroom for a period of time and work with a single student on their caseload individually during stations or centers time. The SLP can work individually with the student using intervention strategies to target his or her individual goals while incorporating content that is being taught in the classroom.

Push-in Small Group: the SLP comes into the classroom for a period of time and work with a single student on their caseload within a group, or a group of students on their caseload, or a group of students in need of more individualized attention during stations or centers time. The SLP can work with this group using intervention strategies to target their individual goals or needs while incorporating content that is being taught in the classroom.

Team teaching: the SLP and teacher will either individually develop and teach a lesson plan with imbedded intervention to the full class, or the SLP and teacher collaboratively develop a lesson plan with embedded intervention strategies for the teacher to teach the full class.

Q77 Rank these treatment targets from most likely to target collaboratively to least likely to target collaboratively

- _____ Isolated speech sounds (1)
- _____ Phonological processes (2)
- _____ Phonological awareness (3)
- _____ Grammatical structures (4)
- _____ Semantics (5)
- _____ Pragmatics (6)
- _____ Fluency (7)
- _____ Reading comprehension (8)
- _____ Writing (9)
- _____ Spelling (10)
- _____ Word-level reading (11)

Q78 Which of the following do you perceive as barriers to collaboration?

- Time (1)
 - Communication (2)
 - Classroom disruption or distraction (3)
 - Leadership (4)
 - Goal targetting (5)
 - Perceived power inequality (6)
 - Personality (7)
 - Other (8) _____
-

Q79 Have you received training on collaboration?

- Yes (1)
 - No (2)
-

Display This Question:

If Have you received training on collaboration? = Yes

Q80 In which of the following areas have you received training or instruction on collaborative service delivery?

- Graduate school (1)
- ASHA or other conference (2)
- in-service training (3)
- Other (4) _____
-

Q81 Would you attend a professional development workshop on collaboration?

- Yes (1)
- No (2)
-

Q82 Did you learn about a potential collaboration approach throughout this survey?

- Yes (1)
- No (2)
-

Q83 Is there anything else you would like for us to know on the subject of professional collaboration in schools?

End of Block: Collaboration

Teacher Collaboration in Schools

Start of Block: Block 2

Q1 The participants identity and answers to the following questions will remain anonymous and participation in the following survey is voluntary. The participant is free to refuse to participate in this research project or to withdraw his or her consent and discontinue participation in the project at any time without penalty or loss of benefits. The participant's participation will not affect his or her relationship with the institution involved in this project.

Do you give your consent to continue participation?

- Yes (1)
- No (2)

Skip To: End of Survey If The participants identity and answers to the following questions will remain anonymous and partic... = No

End of Block: Block 2

Start of Block: Demographic Information

Q2 My highest level of education is

- Bachelors (1)
- Masters (2)
- Pd.D. (3)

Q3 I have been a teacher for

- 0-1 years (1)
- 2-5 years (2)
- 6-10 years (3)
- 11-15 years (4)
- 16-25 years (5)
- 25+ years (6)

Q4 This past academic year I taught

- Preschool (1)
- Kindergarten (2)
- 1st grade (3)
- 2nd grade (4)
- 3rd grade (5)
- 4th grade (6)
- 5th grade (7)
- 6th grade (8)
- 7th grade (9)
- 8th grade (10)
- 9th grade (11)
- 10th grade (12)
- 11th grade (13)

12th grade (14)

Q5 This past year I had a

classroom aid (1)

student teacher (2)

Not applicable (3)

Q6 The number of students in my class this past year was

1-10 (1)

11-15 (2)

16-21 (3)

22-25 (4)

26-30 (5)

31+ (6)

Q7 The number of students in my class this past year that received special education services (or the number of students with an IEP)

▼ 1 (1) ... 20 (20)

Q8 The following special populations were represented in my classroom this past year

- Autism Spectrum Disorder (1)
- Speech Impairment (2)
- Dyslexia (3)
- Intellectual Disability (4)
- Specific learning disability (5)
- Other developmental disability (6)
- Other diagnosis (7) _____

Display This Question:

If The following special populations were represented in my classroom this past year = Speech Impairment

Q9 The specific type(s) of Speech Impairment that were represented is (are)

- Specific language impairment, Expressive/receptive language disorder, Specific language disorder, Language learning disability (1)
- Speech sound disorder (2)
- I do not know (3)

Page Break

End of Block: Demographic Information

Start of Block: Collaboration

Q10 Please use the following descriptions and definitions to answer the questions below.

Service delivery models: varied interventions options in regard to the physical location of intervention or the professional providing the intervention

Consultation: indirect intervention where teachers and SLPs are equal with respect to decision making, exchanging advice and expertise, and implementing language and learning support to achieve common goals (Hartas, 2004).

Push-in Individual: the SLP comes into the classroom for a period of time and work with a single student on their caseload individually during stations or centers time. The SLP can work individually with the student using intervention strategies to target his or her individual goals while incorporating content that is being taught in the classroom.

Push-in Small Group: the SLP comes into the classroom for a period of time and work with a single student on their caseload within a group, or a group of students on their caseload, or a group of students in need of more individualized attention during stations or centers time. The SLP can work with this group using intervention strategies to target their individual goals or needs while incorporating content that is being taught in the classroom.

Team teaching: the SLP and teacher will either individually develop and teach a lesson plan with imbedded intervention to the full class, or the SLP and teacher collaboratively develop a lesson plan with embedded intervention strategies for the teacher to teach the full class.

Q11 Which of the following best describes the way the speech-language pathologist provided treatment to the children in your class in the past year?

pull-out: sessions are held in an isolated room with no use of classroom or curricular material (1)

pull-out: sessions are held in an isolated room with communication with teacher and/or use of classroom material in intervention (2)

push-in: some degree of intervention is done within the child's classroom (3)

Other (4) _____

Display This Question:

If Which of the following best describes the way the speech-language pathologist provided treatment... = push-in: some degree of intervention is done within the child's classroom

Or Which of the following best describes the way the speech-language pathologist provided treatment... = pull-out: sessions are held in an isolated room with communication with teacher and/or use of classroom material in intervention

Q12 Rank the service delivery models you saw the SLP use from most often used to least often used

- SLP provides treatment to one child in the classroom during your whole group instruction time (1)
- SLP provides treatment to one child in the classroom during your small group station or centers time (2)
- The SLP provides treatment to a small group small group (2-5) during your small group stations or centers (3)
- The SLP provides treatment to all students in your class using their own lesson plan (4)
- The SLP and teacher develop a lesson plan together and team-teach all students in your class (5)
- The SLP and teacher consult one another on best practices for the child while in the classroom (6)

Q13 How often did you communicate with the SLP who is providing treatment to the children in your class this past year?

- I do not communicate with the SLP who is providing treatment to the children in my class (1)
- Once per year at the IEP meeting (2)
- 1-3 times outside the IEP meeting (3)
- 4-5 times outside the IEP meeting (4)
- One time per grading period (5)
- One time per month (6)
- Weekly (7)

Daily (8)

Q14 Which of the following would you identify as collaborative partners

- speech language pathologist (1)
- reading specialist (2)
- school psychologist (LSSP) (3)
- other special education professional (4)
- other (5) _____
-

Q15 How would you describe your experience with collaboration?

- Positive experience (1)
- Neutral experience (2)
- Negative experience (3)
-

Q16 Which of the following would describe the perceived benefit of professional collaboration for the students who receive services in your class

- Very effective (1)
- Moderately effective (2)
- Not at all effective (3)

Q17 Please use the following descriptions and definitions to answer the questions below.

Service delivery models: varied interventions options in regard to the physical location of intervention or the professional providing the intervention

Consultation: indirect intervention where teachers and SLPs are equal with respect to decision making, exchanging advice and expertise, and implementing language and learning support to achieve common goals (Hartas, 2004).

Push-in Individual: the SLP comes into the classroom for a period of time and work with a single student on their caseload individually during stations or centers time. The SLP can work individually with the student using intervention strategies to target his or her individual goals while incorporating content that is being taught in the classroom.

Push-in Small Group: the SLP comes into the classroom for a period of time and work with a single student on their caseload within a group, or a group of students on their caseload, or a group of students in need of more individualized attention during stations or centers time. The SLP can work with this group using intervention strategies to target their individual goals or needs while incorporating content that is being taught in the classroom.

Team teaching: the SLP and teacher will either individually develop and teach a lesson plan with imbedded intervention to the full class, or the SLP and teacher collaboratively develop a lesson plan with embedded intervention strategies for the teacher to teach the full class.

Q18 Which curricular targets do you believe could be taught collaboratively with the SLP?

- Grammar (1)
- Vocabulary (2)
- Pragmatics (3)
- Writing (4)
- Reading comprehension (5)
- Spelling (6)
- Stuttering (7)
- Word-level reading (8)

Reading fluency (9)

Articulation (10)

Q19 Which of the following do you perceive as a barrier to collaboration in your school?

Time (1)

Communication (2)

Classroom disruption or distraction (3)

Leadership (4)

Personality differences (5)

Goal targetting (6)

Perceived power inequality (7)

Other (8) _____

Q20 Have you received training or instruction on collaboration?

Yes (1)

No (2)

Q21 Would you attend a professional development workshop on collaboration?

Yes (1)

No (2)

Q22 Did you learn about a potential collaboration approach throughout this survey?

Yes (1)

Maybe (2)

No (3)

Q23 Is there anything else you would like us to know on the subject of professional collaboration in schools?

End of Block: Collaboration

ABSTRACT

A SURVEY OF SPEECH-LANGUAGE PATHOLOGISTS'
AND TEACHERS' SCHOOL-BASED COLLABORATION

by Hannah E. Huffman, M.S., 2020
Davies School of Communication Sciences and Disorders
Texas Christian University

Thesis Advisor: Danielle Brimo, Professor of Communication Sciences and Disorders

Purpose: The purpose of this study was to describe collaboration between SLPs and teachers who work in a school setting. **Method:** Eighty-seven SLPs and seventy-seven teachers responded to a survey from twenty-eight states and responses were analyzed using descriptive statistics and non-parametric chi-square. **Results:** It was found that SLPs are using the pull-out model alongside various collaborative service delivery models. Additionally, teachers and SLPs differ in whether they rate their collaborative experiences as positive, identification of one another as a collaborative partner. In regard to barriers, SLPs and teachers identify some barriers at a similar rate while SLPs report lack of awareness of roles and responsibilities and lack of training more often than teachers. **Conclusion:** There is progress to be made in utility of collaborative methods between teachers and SLPs, but the positive regard for collaboration is a promising first step. Addressing the disagreement between partnership and barriers of use should be a priority.