

A SURVEY OF KANSAS SPEECH-LANGUAGE PATHOLOGISTS' KNOWLEDGE
AND CONFIDENCE REGARDING LITERACY INTERVENTION

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Communication Sciences and Disorders.

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ABSTRACT

The purpose of this study was to examine the knowledge and confidence of Kansas school-based speech-language pathologists (SLPs) regarding literacy intervention by replicating a published survey that was conducted in the state of Virginia by Davis and Murza (2019). The study also aimed to increase the research base in the area of disciplinary literacy in Kansas and to provide information on SLPs' provision of literacy services to students in schools, as data shows that the majority of students in Kansas are not meeting reading and writing standards. This study will then aid in the understanding of how to best serve children with language-literacy disorders in public schools. The participants of this study were 45 Kansas school-based SLPs. They were recruited through the Kansas Speech-Language-Hearing Association via an e-mail and Facebook post. Participants were asked to complete a 26-question survey that lasted about five minutes. This survey consisted of multiple choice, dropdown list, open-ended, and Likert-type scale questions.

The results show that Kansas school-based SLPs are unfamiliar with the term *disciplinary literacy*, they desire additional training in literacy intervention, SLPs with a greater number of years of experience rate their education/training in the area of literacy more poorly, and there is a correlation between SLPs' confidence in their ability to implement language therapy that impacts students' literacy achievement in preschool and a higher percentage of students who had IEP goals connected to literacy achievement, but there is no correlation in grades K-12th. Results of this study were compared to Davis and Murza's study (2019). Future research should follow-up with these participants to gather qualitative results and should gather information from a larger sample.

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CHAPTER I

INTRODUCTION

The connection between spoken and written language has been well established in the research literature. According to the American Speech-Language-Hearing Association (ASHA), spoken language is a crucial component in supporting the development of reading and writing (ASHA, n.d.). For the past 20 years, speech-language pathologists (SLPs) have had a formal role in providing literacy services, although SLPs were involved with supporting the reading and writing curriculum prior to that time (Apel & Masterson, 2001; ASHA, n.d.a). SLPs are trained in the areas of speech, language, and communication. Many, but not all SLPs trained in the last 20 years have received education in the area of literacy. Their knowledge and expertise regarding spoken and written language qualifies SLPs to intervene in the area of literacy (ASHA, n.d.a). However, SLPs report that they are still not completely confident in providing literacy-based services (Fallon et al., 2010; Blood et al., 2010). According to the 2020 American Speech-Language-Hearing Association Schools Survey, 35.8% of SLPs provided services to a mean of 12.6 students in the area of literacy.

The National Assessment of Educational Progress (NAEP) reported that the majority of fourth graders and eighth graders in Kansas are not at grade level in reading and writing (National Center for Education Statistics, 2019b, 2019c), which is alarming, as literacy is integral to success in college and the workplace (Faggella-Luby et al., 2009; Jacobs, 2008; Ippolito et al., 2008). If literacy intervention is not provided, students will not be prepared to meet the demands necessary to contribute to the flourishing economy in Kansas, as they will not have the necessary skills required when entering the workforce. Therefore, proper intervention is needed, especially with adolescents as they are a population that is often neglected in intervention and research (Reed,

2018).

This study aimed to provide answers to the following research questions:

- 1) Are Kansas school-based SLPs familiar with disciplinary literacy?
- 2) How do Kansas school-based SLPs rate the education and/or training they have received in preparing them to work with students with language impairments to improve literacy outcomes?
- 3) Do Kansas school-based SLPs desire additional training in disciplinary literacy and supporting their students' language/literacy needs?
- 4a) Is there a relationship between years of experience, regardless of setting and confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade?
- 4b) Is education/training related to confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten- third grade, fourth-fifth grade, sixth-eighth grade, and ninth-twelfth grade?
- 5) Is experience or education/training related to confidence in ability to align therapy to educational standards (e.g., Kansas College and Career Readiness Standards, Common Core State Standards)?
- 6) Is experience or education/training related to confidence in ability to align therapy to students' content areas (e.g., math, science, history, literature)?
- 7) Is there a relationship between perceived confidence in impacting students' literacy achievement and percentage of students on caseload with Individualized Education Program (IEP) goals connected to literacy achievement?

CHAPTER II

REVIEW OF THE LITERATURE

2.1 The Connection Between Oral Language and Written Language

The foundation of written language development is oral language. Oral language consists of receptive (listening) and expressive (speaking) language, which are also components of written language. The receptive component in written language is reading and the expressive component is writing (ASHA, n.d.a.). The literature has shown that those who struggle with spoken language are more likely to have difficulties with written language (Catts, 1993; Catts & Kamhi, 1987).

Although written language includes more complex syntax and is more formal when compared to spoken language, there is an overlap due to the shared linguistic components (Blood et al., 2010). Typically, individuals who struggle with speaking will also have difficulty with reading and writing, and the reverse is true (ASHA, n.d.b.).

Written language skills include word decoding, reading comprehension, spelling, as well as the ability to compose written works (ASHA, n.d.b.). The importance of written language has also become increasingly important in social contexts through the means of text messages, email correspondences, and social media (Fallon et al., 2010). Knowledge of both spoken and written language is needed in order for children to do well in reading (Catts, 1993).

2.2 Roles and Responsibilities of SLPs in Written Language

SLPs have the responsibility of providing treatment for written language disorders and assuming a role in the development of reading and writing (ASHA, 2001) due to their extensive knowledge regarding spoken language (Blood et al., 2010). According to the *ASHA 2020 Schools Survey Report*, working with students with language disorders in the areas of semantics (vocabulary), morphology (the smallest unit of language that carries meaning), and syntax

(sentence structure) accounted for the second highest percentage (90%) of SLPs' caseloads. Further, it was also reported that about 36% of SLPs provided intervention in the area of literacy. This is important, as it shows that a substantial percentage of SLPs provide services in the area of written language. Studies have been conducted to gather more information about SLPs and written language services through the use of web-based surveys, such as those that were conducted by Fallon and Katz (2011) and Blood et al., (2010).

In the 2010 study conducted by Blood and collaborators, speech-language pathologists' confidence in providing written language services was evaluated. The degree of satisfaction used when rating their education and academic coursework in regard to written language was "a 5-point scale where 1 = outstanding, 2 = good, 3 = average, 4 = limited, and 5 = unsatisfactory" (p. 418). A 5-point scale was also used to rate their confidence in written language disorders where "1 = confident, 2 = somewhat confident, 3 = unsure, 4 = somewhat unconfident, and 5 = not at all confident" (p. 418). In addition, there was also a 5-point scale used to rate their knowledge after reading a statement, where "1 = very good, 2 = good, 3 = unsure, 4 = somewhat limited, and 5 = limited" (p. 418). The results of the survey found that SLPs reported to be *somewhat confident* in working with children with written language disorders. They also found that SLPs rated their training in treating and evaluating written language disorders as *limited*. Four main factors were identified as being correlated to the confidence of SLPs to provide written language disorders the following were: 1) instruction that is provided on the job 2) the knowledge and comprehension an SLP has regarding both oral and written language 3) professional development programs 4) understanding and knowledge regarding collaboration.

Although SLPs are qualified to provide written language services, many school-based SLPs report not providing services in written language to the students that present a deficit in this

area (Fallon & Katz, 2011). This could be because literacy intervention is a smaller subcategory of a larger area, written and oral language assessment and intervention (see Standards 3.12B, 3.1.4B, and 3.1.5B in the Council for Academic Accreditation in Audiology and Speech-Language Pathology of ASHA, 2020). So, it is possible that graduate programs may not be adequately preparing SLPs to be confident and in the area of literacy assessment and intervention (Mahowald & Rentmeester-Disher, 2019).

2.3 Literacy in Schools and the Workforce

A precursor to success in our society is reading. One's ability to read is important for social and economic advancement (Snow et al., 1998). Research has indicated that literacy has a connection with an individual's happiness and success. When individual improves their literacy skills there are benefits for the individuals, the community, workforce, and nation (Dugdale & Clark, 2008).

Today's reading difficulties are primarily due to increasing literacy demands, rather than a decline. There is a demand for higher literacy, especially in a technological society, and those who do not meet that demand face serious implications (Snow et al., 1998). In this digital era, texts are more readily available, but the ability to comprehend and evaluate such texts remains a requirement. Individuals who are not able to interpret and analyze such text will find it difficult to equip themselves with the information they need, or to use it to further the causes they care about. Society depends on a citizen who is well informed (Ippolito et al., 2008).

Due to all of this, there has been growing concern about adolescent learners who are not properly prepared to meet the demands of literacy in school and life (Faggella-Luby et al., 2009; Jacobs, 2008; Ippolito et al., 2008). Unfortunately, adolescents are an often neglected group professionally, as there is a greater emphasis on early intervention (Reed, 2018; Snow & Moje,

2010). This can be seen when comparing the amount of SLPs who work in elementary schools to those who work in secondary schools. The number is much smaller, which could be due to a variety of reasons such as the following: a lack of professional awareness, not feeling comfortable working with this age group, or the structure of dismissal processes (Reed, 2018; Snow & Moje, 2010; Snow et al., 1998; Fallon et al., 2011). All these factors need to be taken into account in order to adequately prepare students, especially adolescents in the area of literacy.

2.4 Disciplinary Literacy

For a century there was a general idea regarding literacy learning which consisted of providing basic skills so that students with appropriate foundational knowledge would then successfully read anything (Shanahan & Shanahan, 2008). This notion assisted in creating a population that was educated enough to meet the demands of the economy. Individuals who then increased their reading skills had the opportunity to work in jobs that required more literacy compared to those who did not further develop their literacy skills. There is a correlation between income and literacy, where higher paying jobs demand more literacy compared to lower paying jobs. Although, there are some jobs that require greater amounts of literacy but are low-paying and those that required less literacy that were higher paying. In 1990, a shift occurred with the addition of various programs and initiatives for literacy as the U.S. was not producing students who would be successful in obtaining and working in areas of employment which demanded literacy (Shanahan & Shanahan, 2008).

In more recent years there has been a shift towards teaching disciplinary literacy. Disciplinary literacy is “teaching the language and literacy demands of a specific subject area” (Davis & Murza, 2019, p. 1). Shanahan and Shanahan (2012) state that disciplinary literacy highlights the importance of thinking within each discipline, so one would approach the text as

someone who worked in that discipline. It involves having knowledge of how experts in that discipline communicate their thoughts or ideas, so that the text can be fully comprehended (Ehren et al., 2012).

Disciplinary literacy is often used interchangeably with the term content area literacy, although there is a difference between both terms. In content area literacy there is an emphasis on the techniques used to comprehend the text without much regard to the literacy or language that is specifically used in that text. (Shanahan & Shanahan, 2012). The similarities and differences between disciplines regarding how information is created, represented, and transmitted or how it is “read” is not emphasized in content areas (Goldman et al., 2016). By teaching disciplinary literacy, students are more successful in reading texts across the various disciplines if they are taught how literacy works in specific disciplines. The responsibility of the SLP is to not only help adolescents in the areas of reading and writing, but to also provide instruction and support to classroom teachers, in order to provide them with knowledge and understanding of how language is used in their specified discipline (Ehren et al., 2012).

2.5 Literacy in Kansas

SLPs and teachers alike should be aware of how to adequately prepare students in the area of literacy, as national assessments show that K-12 students are not meeting standards. The National Assessment of Educational Progress (NAEP) tracks assessments taken by students across the United States to measure their performance across various subjects.

Performing at NAEP proficient indicates that students demonstrate competency over the subject matter. The national results indicated that in 2019, only 35% of fourth graders and 34% of eighth graders performed at or above NAEP proficient (National Center for Education Statistics, 2019a). Alarming in 2019, NAEP reported that only 34% of Kansas students in fourth grade and

32% of students in eighth grade were at or above NAEP proficient for reading and 21% percent of fourth graders were at or above proficiency in writing (National Center for Education Statistics, 2019b, 2019c).

Results for eighth grade students in writing cannot be reported on as there was a change in the way the NAEP test was administered between 2011 and 2017. In 2017, students participated the test on a tablet that had a keyboard attached, which was different from 2011, where students accessed the assessment on a laptop. Afterwards, a comparability study was completed to determine if the changes in digital devices impacted student's performance. These two studies could not be compared to one another, as research had shown that students taking the test through different technological modalities would affect students' performance (National Center for Education Statistics, 2017). Yet, the results available for Kansas indicate a greater need for intervention in the area of literacy.

2.6 Purpose of the study

Speech-language pathologists (SLPs) are qualified to provide literacy intervention. Although, in a survey conducted by Fallon et al. (2011), SLPs reported concerns in their role in the provision of written language services. In addition, the NAEP data indicates Kansas students likely need support in literacy given the low percentage of students performing at or above proficiency. Thus, it is important to assess the knowledge and confidence of SLPs regarding literacy intervention to increase the research base in the area of disciplinary literacy in Kansas and provide information on SLPs' provision of literacy services to students in schools. This study aims to aid in the understanding of how to best serve Kansas children with language-literacy disorders in public schools.

The current study replicated the survey by Davis and Murza (2019) and aimed to answer

the same research questions they proposed, with Kansas school-based SLPs as the participants.

The goal of this study was to answer the following questions:

- 1) Are Kansas school-based SLPs familiar with disciplinary literacy?
- 2) How do Kansas school-based SLPs rate the education and/or training they have received in preparing them to work with students with language impairments to improve literacy outcomes?
- 3) Do Kansas school-based SLPs desire additional training in disciplinary literacy and supporting their students' language/literacy needs?
- 4a) Is there a relationship between years of experience, regardless of setting and confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade?
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- 5) Is experience or education/training related to confidence in ability to align therapy to educational standards (e.g., Kansas College and Career Readiness Standards, Common Core State Standards)?
- 6) Is experience or education/training related to confidence in ability to align therapy to students' content areas (e.g., math, science, history, literature)?
- 7) Is there a relationship between perceived confidence in impacting students' literacy achievement and percentage of students on caseload with Individualized Education Program (IEP) goals connected to literacy achievement?

CHAPTER III

METHODOLOGY

3.1 Larger study

This study was approved by the Institutional Review Board (IRB) at Wichita State University. Of note, this project is part of a much larger study surveying speech-language pathologists in the Midwest, and it was conducted in agreement with approval from the IRBs at the University of Nebraska at Kearney and the University of Central Missouri. The present study reported results from Kansas only.

3.2 Survey

The current study replicated an online survey conducted and published by Davis and Murza (2019). Permission to use their survey for the purpose of this study was granted by Dr. Karen Davis via e-mail on March 7, 2020. In addition to the survey questions, participants were asked demographic questions about the following: age, sex, race, ethnicity, job title, and type of employer. Questions regarding race, ethnicity, and sex were formatted similarly to the 2020 United States Census questionnaire, as recommended in the American Psychological Association Publication Manual (APA, 2020). Differing from Davis and Murza's (2019) survey, participants were asked to provide their name and email if interested in receiving additional training on disciplinary literacy or being contacted for a follow-up interview.

Similar to the survey published by Davis and Murza, the survey was also created using Qualtrics (see Appendix A), a survey tool that was used to collect the responses of the participants. Participants were notified that it would take about five minutes to complete the survey.

To follow the IRB guidelines, a consent form was included in the survey. The survey questions could not be accessed until participants answered a "yes" or "no" question after they had

read and reviewed the consent form. The survey consisted of a total of 26 questions and the types of questions included multiple choice, dropdown list, open-ended, and Likert-type scale questions (which assessed SLPs' confidence level ranging from very confident to not confident at all in ability to implement language therapy across the grade levels that impacted literacy achievement). The dropdown list was implemented shortly after the survey was initially published, as it was noted that some participants had not identified the state in which they were a practicing SLP, which is an essential question to correctly analyze the results of the larger study. The original question was originally an open-ended question, in which participants typed in the state in which they practiced.

Prior to distribution, the survey was reviewed and test-trialed by two certified SLPs, the student researcher, and two non-SLP volunteers to ensure clarity, user friendliness, and easy accessibility. After the survey was test-trialed, the survey settings were changed to "open access" to only allow those who had the link to complete the survey. Prior to distribution, the survey was also viewed on a computer and mobile device to ensure accessibility. The survey link was available to all participants via one e-mail announcement from the Kansas Speech-Language-Hearing Association (KSHA) and on Facebook on December 10, 2020 (see Appendix B). After the survey was initially distributed there were two follow-up reminders, one was sent on January 5, 2021 via e-mail and was also posted on the KSHA Facebook. The second reminder was posted only on the KSHA Facebook page, which took place on January 18, 2021. This is KSHA's policy so as not to send too many e-mails to members.

An 80% survey completion rate was required in order to record participants' responses. Fifty-two participants accessed the survey, but because seven of the surveys did not meet the percentage of completion, they were not included in the current study. The survey closed on February 1, 2021.

3.3 Participants

Kansas school-based SLPs were recruited through the Kansas Speech-Language-Hearing Association (KSHA) via e-mail announcements and a post to the KSHA Facebook page. These modalities provided a brief description of the study along with a link directing the participants to the consent form and survey. The participants accessed the survey electronically to voluntarily answer questions regarding their knowledge and confidence about disciplinary literacy and literacy intervention. Initially, there were 52 participants who completed the survey. However, only 45 participants fit the study criteria and their responses were recorded and analyzed.

CHAPTER IV
RESULTS

4.1 Demographics Results

Of the 45 participants, 44 identified as female and one identified as a male. Forty-three identified as White, one individual identified as American Indian or Alaska Native and White, and another individual identified as some other race. In addition, the participants were asked to indicate their age. One participant reported to be between the ages of 21-24. For the age categories of 25-34, 35-44, and 55-64 there were ten participants in all three categories totaling 30 participants. Eleven participants were between the ages of 45-54 and only three were between the ages of 65-74. Table 1 shows the ages of the participants.

TABLE 1
AGE OF PARTICIPANTS

Age	<i>n</i>	%
21-24	1	2.2
25-34	10	22.2
35-44	10	22.2
45-54	11	24.4
55-64	10	22.2
65-74	3	6.7
Total	45	100.0

Table 2 displays the number of years of experience of the surveyed school-based SLPs regardless of the various settings that SLPs could provide services (e.g., hospital, private clinic,

skilled nursing facility, school, private practice, etc.). The table shows that nine SLPs have 5 years or fewer of experience, seven have 6-10 years of experience, one has 11-15 years of experience, nine have 16-20 years of experience, and nineteen have 21+ years of experience.

TABLE 2
YEARS OF PROFESSIONAL EXPERIENCE REGARDLESS OF SETTING

Years	<i>n</i>	%
5 years or fewer	9	20.0
6 -10 years	7	15.6
11 -15 years	1	2.2
16 - 20 years	9	20.0
21+ years	19	42.2
Total	45	100.0

Table 3 shows the number of years of experience as a school-based SLP. The results indicate that only one SLP who completed the survey had five years or fewer as a school-based SLP. There were eleven participants who have 6-10 years of experience, nine who had 16-20 years of experience, and eleven who had 21+ years of experience.

TABLE 3
YEARS OF EXPERIENCE AS A SCHOOL-BASED SLP

Years	<i>n</i>	%
5 years or fewer	1	2.2
6-10 years	11	24.4
11-15 years	9	20.0
16-20 years	11	24.4
21+ years	13	28.9
Total	45	100.0

Table 4 shows the employment status of the participants. Two participants did not respond, five were part-time, and thirty-eight were full-time.

TABLE 4
EMPLOYMENT STATUS

Employment Status	<i>n</i>	%
No Response	2	4.4
Part-time position	5	11.1
Full-time position	38	84.4
Total	45	100.0

Table 5 displays the type of employer of the participants. One participant did not respond, thirty- nine were employed directly by a school district, four were employed by a contract company, and one was an independent contractor.

TABLE 5
TYPE OF EMPLOYER

Employer	<i>n</i>	%
No Response	1	2.2
School district	39	86.7
Contract company	4	8.9
Independent contractor	1	2.2
Total	45	100.0

4.2 Research Question 1

Are Kansas school-based SLPs familiar with disciplinary literacy?

The first research question sought to determine if Kansas school-based SLPs were familiar with disciplinary literacy. This was determined by question 20 in the survey, “*Are you familiar with the literacy movement called disciplinary literacy?*” Participants were given the choices of “yes” or “no.” If participants answered “yes” they were asked to provide the definition of it on question 21, which was an open-ended question.

Results showed that the majority of Kansas school-based SLPs were unfamiliar with disciplinary literacy, as 44 participants answered “no” and only one participant answered “yes.” The participant that answered “yes” defined disciplinary literacy as “specifics of reading writing, and communicating.” Although, this participant stated familiarity with the concept of disciplinary literacy, the participant provided an incomplete definition of the term.

4.3 Research Question 2

How do Kansas school-based SLPs rate the education and/or training they have received in

preparing them to work with students with language impairments to improve literacy outcomes?

To answer research question two, the researchers used survey question 18, “*How would you rate the education and/or training you received in preparing you to work with students with language impairments to improve literacy outcomes?*” The question was a multiple-choice and participants were given the following options: *excellent, good, fair, poor, very poor, and I didn’t receive education or training in this area*. The majority of the SLPs rated their education between *good* and *fair*. In addition, five SLPs rated their education as *excellent*, five SLPs rated their education/training as *poor*, while the remaining four SLPs reported either *very poor* or they had *not received any education or training*. These two ratings were collapsed in data analysis.

TABLE 6
RATING OF EDUCATION/TRAINING

Rating	<i>n</i>	%
Excellent	5	11.1
Good	18	40.0
Fair	13	28.9
Poor	5	11.1
No education/training or Very Poor	4	8.9
Total	45	100.0

4.4 Research Question 3

Do Kansas school-based SLPs desire additional training in disciplinary literacy and supporting their students’ language/literacy needs?

Survey question 23, *Would you be interested in receiving additional training on disciplinary literacy and supporting your students' language/literacy needs?* was used to determine if participants were interested in receiving additional training, and the question was formatted as a yes or no question. Thirty-two participants (71.1%) were interested in additional training, while only 13 (28.9%) stated they were not interested.

4.5 Research Question 4a

Is there a relationship between years of experience, regardless of setting and confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade?

In order to analyze the data for this research question, a Spearman rank order correlation was used. The current study's results showed that there is not significant correlation between years of experience regardless of setting and confidence in ability to implement language therapy in the grade levels: preschool: $r_s(40) = 0.27, p = 0.10$, n.s., kindergarten through third grade: $r_s(43) = 0.19, p = 0.22$, n.s., fourth through fifth grade: $r_s(42) = 0.10, p = 0.64$, n.s., sixth through eighth grade: $r_s(42) = 0.12, p = 0.50$, n.s., and ninth through twelfth grade: $r_s(36) = 0.21, p = 0.21$. See Table 7.

TABLE 7
 CONFIDENCE BY YEARS OF PROFESSIONAL EXPERIENCE REGARDLESS OF
 SETTING

Survey Item	Years of experience as an SLP regardless of setting
	Pre-K: $r_s(40) = 0.27$
Confidence in ability to implement therapy that impacts students' literacy achievement by grade level	K-3: $r_s(43) = 0.19$
	4-5: $r_s(42) = 0.10$
	6-8: $r_s(42) = 0.12$
	9-12: $r_s(36) = 0.21$

Notes: * $p < 0.05$. ** $p < 0.01$.

Additional data analysis completed is noteworthy to mention, which is, there was a negative correlation between years of experience and rating of education and training in preparation for serving students with language impairments and ability to work with students with language impairments to improve literacy outcomes, $r_s(45) = -0.42, p = 0.001$.

4.6 Research Question 4b

Is education/training related to confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten-third grade, fourth-fifth grade, sixth-eighth grade, and ninth-twelfth grade?

There was no correlation between education/training and confidence in ability to implement language therapy that impacts students' literacy achievement in grades preschool, $r_s(40) = 0.31, p = 0.05$, n.s. and kindergarten-third grade, $r_s(43) = 0.16, p = 0.30$, n.s. See Table 8.

TABLE 8

CONFIDENCE BY RATING OF EDUCATION/TRAINING (PRE-K TO 3)

Survey Item	Rating of education and/or training in preparing SLPs to work with students with language impairments to improve literacy outcomes
Confidence in ability to implement therapy that impacts students' literacy achievement by grade level	Pre-K: $r_s(40) = 0.31$ K-3: $r_s(43) = 0.16$

Notes: * $p < 0.05$. ** $p < 0.01$.

There was a positive correlation between education/training and confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade. There are positive, medium correlations in the following grades: fourth through fifth grade, $r_s(42) = 0.43$, $p = 0.01$, sixth through eighth grade, $r_s(42) = 0.43$, $p = 0.01$, and ninth through twelfth grade, $r_s(36) = 0.42$, $p = 0.05$. This suggests a moderate relationship between SLPs' education and training and confidence in implementing therapy that impacted literacy at these grade levels. That is, the higher the SLPs rated their education and training, the more confident the SLPs were in implementing therapy that impacted literacy at these grade levels. See Table 9.

TABLE 9

CONFIDENCE BY RATING OF EDUCATION/TRAINING (4 TO 12)

Survey Item	Rating of education and/or training in preparing SLPs to work with students with language impairments to improve literacy outcomes
Confidence in ability to implement	4-5: $r_s(45) = 0.43^{**}$
therapy that impacts students'	6-8: $r_s(45) = 0.43^{**}$
literacy achievement by grade level	9-12: $r_s(45) = 0.42^*$

Notes: $*p < 0.05$. $**p < 0.01$.

4.7 Research Question 5

Is experience or education/training related to confidence in ability to align therapy to educational standards (e.g., Kansas College and Career Readiness Standards, Common Core State Standards)?

The Spearman rank order correlation procedure was also used to answer this research question. Results in the survey indicate that there was a positive medium correlation between years of experience and confidence to align therapy to educational standards, $r_s(45) = 0.36$, $p < 0.05$. This indicates a moderate relationship. The more years of experience an SLP had regardless of setting the more confident they felt in their ability to align therapy to educational standards. Survey question 7, “*How many years of experience do you have as an SLP, regardless of setting?*” and survey question 19, “*How confident do you feel in your ability to align your therapy to rigorous state learning standards (e.g., State Standards, Common Core Standards)?*” were used to answer the first part of the research question.

No significant correlation was found between SLPs' education/training and their confidence to align therapy to educational standards, $r_s(45) = 0.03, p = 0.08, n.s.$ Survey question 18, "*How would you rate the education and/or training you received in preparing you to work with students with language impairments to improve literacy outcomes?*" and survey question 19, "*How confident do you feel in your ability to align your therapy to rigorous state learning standards (e.g., State Standards, Common Core Standards)?*" were used to answer the last part of the research question.

4.8 Research Question 6

Is experience or education/training related to confidence in ability to align therapy to students' content areas (e.g., math, science, history, literature)?

No significant correlation was found between years of experience as an SLP, regardless of setting and confidence in ability to align therapy to students' content areas, $r_s(45) = -0.04, p = 0.79, n.s.$ The results in survey question seven, "*How many years of experience do you have as an SLP, regardless of setting?*" and survey question 22, "*How confident do you feel in your ability to align therapy to students' content areas (e.g., math, science, history, literature)?*" were analyzed to establish the results for the first part of research question six.

There was also no significant correlation between education/training and confidence in ability to align therapy to students' content areas, $r_s(45) = 0.15, p = 0.33, n.s.$ Survey question 18, "*How would you rate the education and/or training you received in preparing you to work with students with language impairments to improve literacy outcomes?*" and survey question 22, "*How confident do you feel in your ability to align therapy to students' content areas (e.g., math, science, history, literature)?*" were used to answer the last part of research question six.

4.9 Research Question 7

Is there a relationship between perceived confidence in impacting students' literacy achievement and percentage of students on caseload with Individualized Education Program (IEP) goals connected to literacy achievement?

A moderate relationship was found between confidence in ability to implement language therapy that impacts students' literacy achievement in preschool and percentage of students on caseload with Individualized Education Program (IEP) goals connected to literacy achievement, $r_s(45) = 0.45, p = 0.001$. The higher SLPs rated their confidence in their ability to implement language therapy that impacts students' literacy achievement in preschool, the greater the percentage of students who had IEP goals connected to literacy achievement.

No significant correlation was found between confidence in ability to implement language therapy that impacts students' literacy achievement in grades: kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade and percentage of students with IEPs that have language goals/benchmark/objectives connected to literacy achievement.

Survey question 17, "*How confident are you in your ability to implement language therapy that impacts students' literacy achievement in the following grade levels?*" and survey question 16, "*What percentage of your students with Individualized Education Programs (IEPs) have language goals/benchmark/objectives connected to literacy achievement?*" were reviewed to determine these results.

CHAPTER V

DISCUSSION

5.1 Summary of Findings

A survey of Kansas school-based SLPs was completed. An important finding is that they desire to receive additional training in the area of literacy. The following is a summary of the findings for the seven research questions and how this compares to previous literature.

5.2 Research Question 1

Are Kansas school-based SLPs familiar with disciplinary literacy?

Research question one showed that the majority of Kansas SLPs are unfamiliar with the concept of disciplinary literacy. The reason for this could be because disciplinary literacy's meaning is not completely understood, due to it being used interchangeably with content area literacy. This confusion could be why when disciplinary literacy is broached, educational personnel may question the purpose of disciplinary literacy, as they falsely believe that they are already teaching it, which then prevents it from truly garnering traction in secondary education (Shanahan and Shanahan, 2012).

The current study's results for research question one were similar to the results of Davis and Murza (2019). They found that the majority of surveyed SLPs were unfamiliar with disciplinary literacy: yes: $n = 22$ (9%) and no: $n = 214$ (91%). The current study found that the majority of Kansas school-based SLPs were unfamiliar with disciplinary literacy. This was determined by the high number of responses, 44 who answered "no" and only one who answered "yes" when asked if he/she was familiar with the literacy movement called disciplinary literacy.

5.3 Research Question 2

How do Kansas school-based SLPs rate the education and/or training they have received in

preparing them to work with students with language impairments to improve literacy outcomes?

Research question two showed that the majority of the SLPs rated their education and/or training between good and fair. Eighteen SLPs rated it as “good” while 13 rated it as “fair.” When combining the number of responses between these two choices, that makes up more than half of the responses, as 45 responses were recorded. “Poor” and “excellent” were the chosen responses of five SLPs, while four SLPs reported they hadn’t received any education or training.

Blood and colleagues (2010) also posed a similar question as research question two. One of their research questions sought “SLPs’ perceptions of satisfaction with their clinical course work and training in evaluating and treating written language disorders” (p. 417). Their results showed that SLPs reported “limited” satisfaction with their clinical experience and scholarly training when it pertained to the area of treatment and evaluation in written language disorders. This is fairly similar to the result that was found in the current study in research question two. They also found that there was a correlation (although it was not too strong) between SLPs with fewer years of experience and higher satisfaction with the clinical and academic training they received.

Davis and Murza’s (2019) results included the following for the same research question: *excellent, n=21 (9%), good, n=61 (26%), fair, n=80 (34%), poor, n= 42 (18%), very poor, n= 3(1%), and I didn’t receive any education or training, n= 28 (12%)*. Their results were similar to the current study, as the majority of the SLPs rated between *good* and *fair*.

5.4 Research Question 3

Do Kansas school-based SLPs desire additional training in disciplinary literacy and supporting their students' language/literacy needs?

The result of research question three is similar to that of Davis and Murza (2019). In their

study they found that the majority of SLPs in Virginia also reported an interest in receiving additional training in the area of disciplinary literacy.

In the current study, SLPs indicated that they would desire additional training in disciplinary literacy and supporting their students' language/literacy needs. The results showed that 32 participants (71.1%) were interested in additional training, while only 13 (28.9%) stated they were not interested. This could relate to research question two, as the majority of SLPs reported that the education and training they received was mostly *good* and *fair*. From the 45 participants that rated their education and training, only five rated it as *excellent* which could be indicative of why SLPs are interested in becoming more familiar with the concept of disciplinary literacy and learning more about how to support their students' language and literacy needs. The results of this question indicate that if more professional development opportunities in this area were offered, the majority of SLPs would be interested in participating.

5.5 Research Question 4a

Is there a relationship between years of experience, regardless of setting and confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade?

Through research question 4a, the researchers sought to determine if there was a correlation between years of experience regardless of setting and confidence in ability to implement language therapy that impacts students' literacy achievement across the various grade levels. The results showed that there is no correlation between the two factors.

Differing from the current study, Davis and Murza (2019) found a weak but significant negative correlation between years of experience regardless of setting and confidence in ability to

implement language therapy that impacts students' literacy achievement. Their results were: preschool: $r_s(215) = -0.24, p = 0.01$, kindergarten through third grade: $r_s(218) = -0.18, p = 0.05$, fourth through fifth grade: $r_s(216) = -0.16, p = 0.05$, sixth through eighth grade: $r_s(185) = -0.18, p = 0.05$, ninth through twelfth grade: $r_s(174) = -0.18, p = 0.05$.

The differing results between could be due to number of participants, where the current study had forty-five participants, Davis and Murza (2019) had 247 participants. It should also be noted that the participants were serving a variety of ages in the school not every participant answered every question, therefore; the number of participants data analyzed was fewer than forty-five.

Although not a part of the original research question, additional information is noteworthy. Data analysis revealed that there is negative correlation between years of experience and rating of education and training in preparation for serving students with language impairments and ability to work with students with language impairments to improve literacy outcomes. The current study found a significant negative correlation between years of experience and rating of education and training, $r_s(45) = -0.42, p = 0.001$. This indicates that the greater years of experience a SLP has, the more negatively he/she will rate their education and/or training to work with students with language impairments to improve literacy outcomes.

Blood and colleagues (2010) also posed a similar question when asking: "what is the association between the number of years of experience of an SLP and his or her satisfaction with academic and clinical training, knowledge, and confidence?" (p. 417). In their study they found: "results revealed significant negative correlations between the number of years working in the schools and perceived satisfaction with academic course work ($r_s = -0.49; p < 0.0001$), clinical training ($r_s = -0.42; p < .0001$), and formal university course work ($r_s = -0.51; p < 0.0001$)" (p.

422).

This study also found the same correlation between education/training and years of experience regardless of setting, as that of Blood and colleagues (2010). The results showed that the more years of experience a SLP has, the lower they rate the education/training they received and the less years of experience an SLP has the higher he/she rated their education/training.

5.6 Research Question 4b

Is education/training related to confidence in ability to implement language therapy that impacts students' literacy achievement in the following grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade?

The second part of research question four aimed to find if there was relationship between education and/or training to work with students with language impairments to improve literacy outcomes and confidence in ability to implement language therapy that impacts students' literacy achievement in grades: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade. The study found that there was no correlation between education/training and confidence in ability to implement language therapy that impacts students' literacy achievement in preschool and kindergarten through third grade. A positive correlation was found between the two factors in grades: fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade.

Davis and Murza (2019) found that there was a weak but significant correlation between rating of education and confidence in ability to implement language therapy in the grades preschool through twelfth grade. SLPs who rated their education more positively were more confident in the ability. Their results showed the following correlations: preschool: $r_s(215) = 0.35$,

$p = 0.01$, kindergarten through third grade: $r_s(218) = 0.37$, $p = 0.01$, fourth through fifth grade: $r_s(216) = 0.39$, $p = 0.01$, sixth through eighth grade: $r_s(185) = 0.31$, $p = 0.01$, ninth through twelfth grade: $r_s(174) = 0.28$, $p = 0.01$.

The findings by Blood and colleagues (2010) could explain the current study's results for the second part of research question four. They found that school based SLPs who are more experienced or have greater number of years in the field obtained most of their knowledge from on-the-job training (63.8%) or professional development courses (57.8%). This finding could explain why SLPs are confident in their ability for older children because they might have sought out additional training in the form of professional development courses.

5.7 Research Question 5

Is experience or education/training related to confidence in ability to align therapy to educational standards (e.g., Kansas College and Career Readiness Standards, Common Core State Standards)?

Research question five found that there is a positive correlation between years of experience and confidence in aligning speech-language services with educational standards. It was found that the more years of experience an SLP has, regardless of setting, the more secure they are in their ability to match therapy with educational standards. There was no significant correlation between SLP's education/training and their confidence to align therapy to educational standards.

Both the current study and Davis and Murza (2019) found a correlation between years of experience and confidence. Davis and Murza (2019) found a weak but significant correlation between the number of years of experience and confidence $r_s(235) = -0.14$, $p < 0.05$. Unlike the current study, Davis and Murza (2019) found that there was a weak but significant correlation between education/training and confidence to align therapy to educational standards, $r_s(235) =$

0.36, $p < 0.01$.

In their survey, Ariza and Walden (2017) reported that 87% of the SLPs surveyed from across the United States incorporated Common Core State Standards (CCSS) into their speech-language sessions. Justice (2013) reported that if SLPs do not align their therapy to that of other school personnel (such as teachers or special education teachers) who are also providing services, SLPs will not have much of an impact on that which is language related. She goes on to indicate, that by adjusting goals to align to CCSS not only will speech-language will be impacted, but so will a student's success in school. Further, if both SLPs and other educational personnel incorporate CCSS into their instructional practices at the middle school and high school levels, they will support their students in achieving an understanding of disciplinary literacy (Goldman et al., 2016).

Overall, these findings may demonstrate that SLPs in Kansas are incorporating CCSS and Kansas College and Career Readiness Standards into therapy based on their experience. However, they are not doing so based on their training. This is in contrast to Davis and Murza's (2019) findings for Virginia.

5.8 Research Question 6

Is experience or education/training related to confidence in ability to align therapy to students' content areas (e.g., math, science, history, literature)?

From research question six, results indicated that there was no significant correlation between the years of experience as an SLP, regardless of setting and confidence in ability to align therapy to students' content areas. In addition, results showed that there was no significant correlation between education/training and confidence in ability to align therapy to students' content areas.

Davis and Murza (2019) had a similar result when assessing if there was a relationship between years of experience, regardless of setting and confidence in aligning therapy to content areas. The current study and Davis and Murza's (2019) study found that there was no correlation between the two factors: years of experience and confidence in aligning therapy to content areas, $r_s(235) = -0.03$.

In terms of education/training, although the current study showed that there was no correlation in the education/training and confidence when aligning therapy to content areas, Davis and Murza (2019) found a positive correlation between the two, $r_s(233) = 0.34, p < .01$. They found SLPs who were more satisfied with their education were more confident in their ability when it came to implementing therapy to content areas.

Perhaps the reason that no correlation was found between these two factors in our current study based on Kansas SLPs could be related to our findings in research question 4b and similar to the findings of Blood and colleagues (2010), which demonstrated that most school-based SLPs reported that they had received more information about written language disorders from on-the-job-training or state and national conferences. This is a surprising finding given Shanahan and Shanahan (2012) reported that content area literacy is a concept that has been implemented and thus been incorporated in educational professionals' textbooks. A possible explanation for the results of the current study indicating no correlation between education and/or training and ability to implement therapy that aligns to content areas is SLPs may gain information about written language or aspects that pertain to written language (e.g., content area literacy) after their preprofessional education.

5.9 Research Question 7

Is there a relationship between perceived confidence in impacting students' literacy

achievement and percentage of students on caseload with Individualized Education Program (IEP) goals connected to literacy achievement?

In order to answer research question seven, participants were asked to identify the percentage of their students on caseload who have Individualized Education Programs (IEPs) goals/benchmark/objectives connected to literacy achievement. They were then asked to rate their confidence in their ability to implement language therapy that impacts students' literacy achievement in the following grade levels: preschool, kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade.

The study found that the higher SLPs rated their confidence in their ability to implement language therapy that impacts students' literacy achievement in preschool, the higher the percentage of students who had IEP goals connected to literacy achievement in that grade level. There was no significant correlation between confidence in ability to implement language therapy that impacts students' literacy achievement in grades: kindergarten through third grade, fourth through fifth grade, sixth through eighth grade, and ninth through twelfth grade and percentage of students with IEPs that have language goals/benchmark/objectives connected to literacy achievement. Overall, across the various grade levels, Davis and Murza (2019) found a negative but weak correlation between confidence and number of students on caseload with IEPs connected to literacy achievement, $r_s(234) = -0.22, p = .001$. This meant that the greater the percentage of students on caseload with IEPs that were connected to literacy, the greater the SLPs' confidence in their ability to impact students' literacy achievement. They suggested that a possibility for this correlation could be that those who were already more confident wrote more goals that pertained to literacy.

An explanation for the current study's results showing that there was a correlation between

SLPs' confidence in their ability to implement language therapy that impacts students' literacy achievement in preschool and a higher percentage of students who had IEP goals connected to literacy achievement in that grade level is that there is an emphasis on early literacy intervention and not as much in the later grades. For example, Snow and Moje (2010) suggest there is an assumption that reading instruction stops when a student is in third grade. Further, when a student is in third grade, it is assumed that he/she will not have trouble with reading comprehension as they proceed to the later grades. This idea is known as the inoculation fallacy, which suggests that early literacy intervention will completely protect against reading failure. Instead, it should be noted that reading instruction does not stop in third grade or even in the later grades, such as high school.

Reed (2018) explains the neglect that adolescents face in relation to speech-language services. This could explain the lack of correlation between perceived confidence and number of students with IEP goals connected to literacy in grades ninth-twelfth. She also points out that most kids are dismissed from services after grade school, which could explain the current study's lack of correlation between both factors in middle school.

To further explain the results of the present study, perhaps the finding of no significant correlation between percentage of students with IEPs who have language goals connected to literacy achievement and confidence in ability to implement language therapy that impacts student's literacy in preschool through twelfth grade is due to how literacy intervention is approached. Literacy skills are addressed by SLPs in the school setting in some areas of Kansas. However, in other areas as literacy is considered part of the general education curriculum, it might be expected that literacy is addressed by the classroom teacher. Further, with SLPs high caseloads and multiple school professionals with knowledge about literacy, it is possible that literacy

interventions may be provided by a reading specialist or special educator. So, while SLPs may feel confident in their ability to implement language therapy impacting student's literacy achievement this area is not formally included in IEP goals written by an SLP.

5.10 Limitations

There were some limitations to this study. First, the current study included a small number of participants. There are currently 1058 school-based SLPs in Kansas (Wendy Davis, personal communication, October 20, 2020). However, only 45 participants completed this survey, which is representative of only 0.04% of Kansas school-based SLPs. It is also possible that only SLPs who were interested in the area of literacy participated in the survey, preventing a more accurate and thorough picture of literacy intervention amongst school-based SLPs. Furthermore, the survey was distributed solely through KSHA in the form of an e-mail or through the Facebook post. This meant that the survey was only accessible to those who had a connection to this medium.

5.11 Future Directions

It is recommended that Kansas SLPs receive more professional development courses, specifically in the area of literacy intervention, as Mahowald and Rentmeester (2019) reported that graduate programs are not adequately preparing SLPs in the area of literacy intervention. There should also be a focus on literacy intervention for high schoolers, as they are often a neglected group in the area of literacy (Reed, 2018). In addition to the survey, follow-up interviews will be conducted to gather more information about the provision on literacy services. Additional data will also be collected from SLPs in the Midwest, in order to further assess the knowledge and confidence of SLPs with regard to literacy intervention. Recruitment in future studies should vary, such as by direct e-mails or by snowball sampling, where SLPs who have already taken the survey could let their colleagues know about it. Future research should target SLPs with five or fewer

years of experience, as the majority of the current study's participants have 21+ years of experience. This is important as we would be able to compare past and current practices in education and attitudes in regard to literacy intervention.

5.12 Conclusion

The purpose of this study was to examine the knowledge and confidence of Kansas school-based SLPs regarding literacy intervention by replicating a published survey that was conducted in the state of Virginia by Davis and Murza (2019). When compared to previous research, there are similarities that are noted, such as SLPs are not completely comfortable or confident in the area of literacy intervention (Fallon et al., 2011; Blood et al., 2010; Davis & Murza, 2019; Reed, 2018). In addition, it was also found that SLPs who have more years of experience rated their education more poorly (Blood et al., 2010; Davis & Murza, 2019). Both of these factors indicate that proper preprofessional development is necessary to help SLPs increase their confidence and knowledge regarding literacy. If there is no change in how SLPs are being educated or trained, then professional development programs are necessary in order to adequately prepare SLPs to intervene and take an active role in the area of literacy. The current study indicated that most Kansas school-based SLPs are interested in receiving additional training. Perhaps confidence overall can be increased in literacy intervention, if provided with additional training. In the future, new recruitment methods should be implemented in order to have a greater number of Kansas school-based SLPs complete similar surveys. Additional data should also be collected in other states in order to best understand SLPs' knowledge and confidence regarding literacy intervention.

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APPENDICES

APPENDIX A

SURVEY

Survey of Midwest SLPs' Confidence with Literacy Intervention for Adolescents.

Hello, My name is Judydiana Chavira and I am a current graduate student in the Communication Sciences and Disorders program at Wichita State University. I am conducting a thesis research project under the direction of Dr. Karissa Marble- Flint. The study is approved by the Wichita State University Institutional Review Board (IRB #4863), and it is being conducted in agreement with approval from the IRBs at the University of Nebraska at Kearney and the University of Central Missouri.

I am contacting you because you are a school-based speech-language pathologist and I am recruiting research participants to help us 1.) increase the research base in the area of disciplinary literacy, specific to the Midwest, and 2.) provide information on Midwest SLPs' provision of literacy services to students in schools. I am interested in your participation in a survey analyzing Midwestern school-based SLPs' confidence and knowledge concerning disciplinary literacy. If you decide to participate, you will be asked to complete a survey that will take about five minutes to complete.

In addition to the survey questions, we will request age, gender, ethnicity, job title, and type of employer. There are no personal benefits or anticipated risks to participating in this study. However, if you feel uncomfortable with a question, you may skip it. Participation is voluntary, and you can stop taking the survey at any time.

Participants may enter to win a drawing for one of five \$10 Amazon gift cards; names will be drawn and the winners will be announced by May 2021. We will work to make sure that no one sees your survey responses without approval, and we will store survey responses for five years on a password protected computer. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you. If you have any questions, please contact my advisor Dr. Karissa Marble-Flint at karissa.marble-flint@wichita.edu, (316) 978-6356; or, you may contact me at Judydiana Chavira at jcchavira@shockers.wichita.edu. For questions about the rights of research participants, you may contact the Office of Research and Technology Transfer at Wichita State University, 1845 Fairmount Street, Wichita, KS 67260-0007, and telephone (316) 978-3285.

You are under no obligation to participate in this study. **By selecting "Yes" below**, you are indicating that:

- You have read (or someone has read to you) the information provided above,
- You are aware that this is a research study,
- You have voluntarily decided to participate.

I would greatly appreciate your participation in our survey, as well as your willingness to distribute this survey to other SLPs.

Thank you for your time,
Judydiana Chavira

WSU Master's Student – Communication Sciences and Disorders and
Karissa Marble-Flint, PhD, CCC-SLP, Assistant Professor

APPENDIX A (continued)

- Yes
- No

2 In what state are you a practicing SLP?

- Kansas
- Nebraska
- South Dakota
- Missouri
- Other

3 What is your age?

- 21-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75-84
- 85 or older

4 Are you of Hispanic, Latino, or Spanish origin?

- Yes

APPENDIX A (continued)

- No
- Prefer not to respond

5 What is your race?

- American Indian or Alaska Native
- Black or African American
- White
- Chinese
- Filipino
- Asian Indian
- Vietnamese
- Korean
- Japanese
- Other Asian _____
- Native Hawaiian
- Samoan
- Chamorro
- Other Pacific Islander _____
- Mexican, Mexican-American, Chicano
- Puerto Rican
- Cuban

APPENDIX A (continued)

- Other Hispanic, Latino, or Spanish origin
-

- Some other race _____
- Prefer not to respond

6 What is your sex?

- Male
- Female
- Prefer not to respond

7 How many years of experience do you have as an SLP, regardless of setting?

- 5 years or fewer
- 6-10 years
- 11-15 years
- 16-20 years
- 21+ years

8 Are you currently a school-based SLP?

- Yes
- No

9 How many years of experience do you have as a school-based SLP?

APPENDIX A (continued)

- 5 years or fewer
- 6-10 years
- 11-15 years
- 16-20 years
- 21+ years

10 Describe your current position.

- Part-time position
- Full-time position

11 Who is your employer?

- School district
- Contract company
- I am an independent contractor

12 What is the age range of students for whom you provide speech-language services (select all that apply)?

- Does not apply, I do not provide direct services
- Birth-3 years
- Pre-K
- Kindergarten-5th grade
- 6th-8th grade

APPENDIX A (continued)

- 9th-12th grade
- Other

13 Describe your school setting.

- Rural
- Urban
- Suburban
- Other

14 What percentage of the students you serve are speech (not language) impaired?

- Less than 25%
- 26%-50%
- 51%-75%
- 76%-100%

15 What percentage of the students you serve are language impaired only or a combination of speech/language impaired?

- Less than 25%
- 26%-50%
- 51%-75%
- 76%-100%

APPENDIX A (continued)

16 What percentage of your students with Individualized Education Programs (IEPs) have language goals/benchmark/objectives connected to literacy achievement?

- Less than 25%
- 26%-50%
- 51-75%
- 76%-100%

17 How confident are you in your ability to implement language therapy that impacts students' literacy achievement in the following grade levels?

	Very Confident	Somewhat Confident	Neutral	Lacking Confidence	Not Confident at All
Pre-K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K-3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4-5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6-8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9-12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18 How would you rate the education and/or training you received in preparing you to work with students with language impairments to improve literacy outcomes?

- Excellent
- Good
- Fair
- Poor
- Very Poor
- I didn't receive any education or training in this area

APPENDIX A (continued)

19 How confident do you feel in your ability to align your therapy to rigorous state learning standards (e.g., State Standards, Common Core Standards)?

- Very confident
- Somewhat confident
- Neutral
- Lacking confidence
- Not confident at all

20 Are you familiar with the literacy movement called disciplinary literacy?

- Yes
- No

21 If yes, how do you define disciplinary literacy?

22 How confident do you feel in your ability to align therapy to students' content areas (e.g., math, science, history, literature)?

- Very confident
- Somewhat confident
- Neutral
- Lacking confidence
- Not confident at all

APPENDIX A (continued)

23 Would you be interested in receiving additional training on disciplinary literacy and supporting your students' language/literacy needs?

- Yes
- No

24 Would you be interested in being contacted for a follow up interview?

- Yes
- No

25 If yes, please provide your name and email address in the box below.

26 If you are interested in the drawing for one of five \$10 Amazon gift cards, please provide your e-mail address below.

APPENDIX B

SURVEY REQUEST FOR KSHA FACEBOOK AND E-MAIL



Hello,

My name is Judydiana Chavira and I am a current graduate student in speech- language pathology program in the Communication Sciences and Disorders department at Wichita State University. I am conducting a thesis research project under the direction of Dr. Karissa Marble-Flint. The study is approved by the Wichita State University Institutional Review Board (IRB #4863), and it is being conducted in agreement with approval from the IRBs at the University of Nebraska at Kearney and the University of Central Missouri.

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Thank you for your time,
Judydiana Chavira
WSU Master's Student – Communication Sciences and Disorders and
Karissa Marble-Flint, PhD, CCC-SLP, Assistant Professor

Follow this link to the Survey:

https://wichitastate.co1.qualtrics.com/jfe/form/SV_9tWNnRTnSQWzhnm

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