

University of Arkansas, Fayetteville

ScholarWorks@UARK

---

Rehabilitation, Human Resources and  
Communication Disorders Undergraduate  
Honors Theses

Rehabilitation, Human Resources and  
Communication Disorders

---

5-2017

## Need for Speech-Language Pathologists in Juvenile Detention Centers in Arkansas

Jessica R. Stephenson

Follow this and additional works at: <https://scholarworks.uark.edu/rhrcuht>



Part of the [Speech Pathology and Audiology Commons](#)

---

### Citation

Stephenson, J. R. (2017). Need for Speech-Language Pathologists in Juvenile Detention Centers in Arkansas. *Rehabilitation, Human Resources and Communication Disorders Undergraduate Honors Theses* Retrieved from <https://scholarworks.uark.edu/rhrcuht/50>

This Thesis is brought to you for free and open access by the Rehabilitation, Human Resources and Communication Disorders at ScholarWorks@UARK. It has been accepted for inclusion in Rehabilitation, Human Resources and Communication Disorders Undergraduate Honors Theses by an authorized administrator of ScholarWorks@UARK. For more information, please contact [scholar@uark.edu](mailto:scholar@uark.edu).

Need for Speech-Language Pathologists in Juvenile Detention Centers in Arkansas

Jessica Stephenson

University of Arkansas

## **Abstract**

Young offenders in juvenile detention centers (JDCs) have a higher than average incidence of communication difficulties. There is limited published research on incidence of communication disorders and intervention techniques on this population in Arkansas. Speech-language pathologists (SLP) have been implemented in the JDC setting in other countries to determine if having speech-language therapy services will benefit juvenile offenders with their legal experiences and their lives post release. The limited research that is available identifies the need for a full range of speech-language therapy services to lower recidivism rates and provide offenders with the necessary tools for functional communication. The first aim of this study is to determine whether professionals involved within the juvenile justice system believe that there is a need for speech-language therapy services. The second aim is to determine what services each professional group believes would be beneficial in the JDC setting and how the services would benefit their interactions with juvenile offenders. An anonymous online survey was conducted and categorized into three groups; speech-language pathologists, juvenile detention employees and legal professionals. Questions were tailored to opinions given their experiences with juvenile offenders on topics including current services provided in juvenile centers, the effect that communication disorders have on offenders' legal experiences and the benefits that could be seen if full-time SLPs were implemented in the JDC setting. Literature has shown that speech-language therapy services are integral to assisting juvenile offenders especially those who enter the center with undiagnosed communication difficulties. The limited research on the topic in Arkansas shows the need for more attention from professionals associated with JDCs. This study

identified a need for more research to be conducted within Arkansas JDCs to identify the incidence of communication difficulties and the steps needed to provide full-time services.

## Acknowledgements

**First and most importantly to my parents:** I wouldn't be here without your encouragement and support. To my mom who helped me through every step of this process and made me smile when the stress of this thesis seemed overwhelming, I will be forever grateful. To my dad who has shown me what true perseverance is, I am forever inspired. You are the reason I found my passion for speech pathology and for that I cannot thank you enough.

**To my family:** Thank you for supporting me throughout this process. To my second set of parents, thank you for your advice and help throughout my college career. To my Arkansas family, you opened your home to me and I can't wait to continue my career in your city.

**To my amazing friends:** Thank you for being some of my biggest cheerleaders when I didn't think I could make it through. The encouragement from those both in and out of class was unbelievably helpful.

**To my mentor, Dr. Frazier:** Thank you for taking me on as a mentee among your many responsibilities. Thank you for replying to my countless emails and reassuring me that this research was going to be successful.

**To Dr. Glade:** Thank you for being my editor-in-chief and your willingness to help me at any time. Thank you for reminding me that my research is important and that I can make a difference. Your support has meant the world to me and I can't wait to continue this process with you.

**To Kristy Brown:** Thank you for sitting on my Honors Committee even though you are impossibly busy with your countless opportunities. Your experience has been extremely helpful throughout my thesis.

**To Mr. Aslin:** Thank you for encouraging me to apply to the Honors College and then into writing a thesis. Your office was always a comforting place in my moments of panic.

**To my participants:** Thank you for taking the time to participate in my research and having such a positive response to my topic. Your encouragement has given me the reassurance that this research will impact people's lives and is important to multiple professions.

## **TABLE OF CONTENTS**

<b>INTRODUCTION</b>	<b>4</b>
STATEMENT OF THE PROBLEM	4
BASIS FOR RESEARCH	7
RESEARCH QUESTIONS	11
<b>METHODS</b>	<b>11</b>
PARTICIPANTS	11
MEASURES	11
ANALYSIS	15
<b>RESULTS</b>	<b>15</b>
<b>DISCUSSION</b>	<b>18</b>
LIMITATIONS	19
FURTHER RESEARCH	20
CONCLUSIONS	20
<b>REFERENCES</b>	<b>23</b>

## **Statement of the Problem**

Arkansas is currently at a critical point in its juvenile justice system; finding a more effective and less expensive way to help youths who become juvenile offenders is a priority. The Division of Youth Services (DYS) includes juvenile court judges, advocates, policy makers and public servants that are part of the reform effort. In Arkansas, juvenile offenders are being confined to residential facilities due to the lack of community-based programs, consequently this leads judges to incarcerate juveniles for misdemeanors instead of rehabilitating them. In 2008, more than 90% of youth commitments were for nonviolent crimes and in 2007, 42% of commitments were for misdemeanors (Arthur & Rosche, 2008)

It costs the state of Arkansas an average of \$150 per day per inmate in a residential facility, with those in specialty facilities such as the Arkansas State Hospital costing up to \$480 per day per resident. In 2007, the 143-bed Assessment and Treatment Center in Alexander, Arkansas cost \$11 million to operate (Arthur & Rosche, 2008). The cost of maintaining juvenile detention centers (particularly the specialty facilities) is a significant one for Arkansan taxpayers. With such substantial costs attached to the incarceration of juvenile offenders, the commitment rate is cause for even more concern. The commitment rate in Arkansas was 79.5% and the detention rate 20.5%. The national commitment rate was 2.4 times the detention rate however, Arkansas's rate is nearly four times the national average (Sickmund; Puzzanchera, 2014). In 2014, of the thirty-three residential facilities in Arkansas, thirty-two were at or over capacity. The Assessment and Treatment Center in Alexander, Arkansas has reduced its number of beds from 143 to 100, the data indicating that the facility is over capacity can lead to

additional complications for inmates with communication disorders (Arthur & Hatney, 2012).

In recent years, The Missouri Model as a system has identified out-of-home placement as being the last resort: therapeutic facilities based on natural home environments have been put in place and after twenty years of reform, Missouri is now recognized as having the best juvenile justice system in the United States (Sickmund & Puzzanchera, 2014). In the 1970s Missouri DYS implemented steps to establish residential programs to rehabilitate juvenile offenders who were committed for misdemeanor crimes. Missouri DYS began using smaller residential facilities that have a more “home-like” feel to apply therapeutic approaches to treating juvenile offenders instead of incarceration (Decker, 2010). Arkansas DYS is modeling their juvenile justice system reform on this Missouri Model to encourage rehabilitation over commitment to their JDCs.

In Arthur and Hatney’s 2012 report “The Architecture of Reform”, a positive change was for recidivism rates was reported when comparing fiscal year 2011 to previous fiscal years. In the reform proposal, the committee put forward six hypothetical future reform scenarios. Each scenario tackled a different area of need within the DYS secure custody population. Then each scenario was then analyzed as to how the population size of juvenile offenders in custody for misdemeanor crimes would be reduced. Scenario six- which aims to reduce the commitments of youth with an IQ under 70 directly applies to speech-language pathology. In a study conducted in 2010, of 345 youths that were assessed, nearly 8% had an IQ below 70 and 20% were considered borderline impaired with an IQ between 70 and 79. There is a precondition of commitment that cognitive function must be at an IQ of at least 70 and if the 8% of the population already incarcerated were not granted this precondition of commitment, this means the system is spending nearly \$3 million on youth that cannot benefit from incarceration. The allocation of

these funds could be put towards community-based programs that actually benefit these youths. When this information was discovered, professionals at the University of Arkansas Medical Sciences (UAMS) identified that juvenile offenders with IQ levels between 70 and 79 with a severe language impairment are unable to participate meaningfully in DYS programming. This was determined using two critical thinking and language assessments used by DYS - Test of Problem Solving (TOPS) and the Supralinguistic Index (a subtest of the Comprehensive Assessment of Spoken Language). If a number of the juvenile offenders whose IQ falls within the borderline impaired bracket (IQ of 70 to 79) also have language impairments, these individuals with language impairments would also be incapable of benefitting from traditional DYS programs. These language impaired populations are better candidates for alternative placements and community-based programs; funding of which can come from the reduction of incarceration numbers and reduction in recidivism rates.

## **Basis for Research**

Young offenders in Juvenile Detention Centers (JDCs) have a high incidence of communication difficulties, many of which are undiagnosed communication disorders rather than simply behavioral problems. Many research projects have exposed the need for Speech Language Pathologists (SLPs) to work in JDCs, but limited published research exists in the state of Arkansas. In countries where speech therapy services have been provided, positive results have been reported with young offenders in both their rehabilitation and detention centers. SLPs need to be the norm in the JDC settings to ensure that language impairments are identified and treated; this will allow young offenders not only the chance to improve their ability to communicate, but also to improve their ability to advocate for their progress within the legal system. The absence of research for individuals in JDC settings in Arkansas who utilize these services, leaves room for in-depth research to be conducted.

Fifty years ago Cozad and Rousey (1966) gave the world of speech-language pathology its first in-depth description of the communication problems in high-risk populations because there is a systematic overrepresentation of individuals with communication disorders in both adult and juvenile correctional facilities. Research on communication disorders in juvenile offenders was richer in quality and quantity due to higher prevalence rates but still no significant intervention is being offered on a regular basis (La Vigne & Van Rybroek, 2010). In 1973, the Task Force of Speech Pathology/Audiology Needs in Penal Institutions (Task Force) was created to examine the need for speech-language therapy services in prison systems, however, this task force was unable to serve as intended (La Vigne *et al.* 2010). The recommendations of the Task Force were implemented at a small level but did not influence on the large scale for which it was

originally intended. The Task Force focused their research on adult prison populations, which provided a base for further research but did not delve into research for juveniles who have a higher demand for these services.

In a report on adolescent females in American correctional facilities, it was recorded that 19.65% had communication impairments which made them candidates for speech-language services. (Sanger, Creswell, Dworak & Schultz, 2000). Research in England showed that over 60% of young offenders had a speech, language or communication need that was not being addressed or treated (Bryan. 2004). This study was expanded in 2007, when new entrants to the Intensive Supervisions and Surveillance Program (ISSP) were screened for language disorders. Of the individuals who were screened: 65% required speech services; only 8% had been diagnosed with a communication disorder (Bryan *et al*, 2009). With such significant numbers across the board of undiagnosed communication disorders, more permanent work is needed to ensure these crucial services are provided to all those who require them.

Communication disorders have a different implication for young offenders in JDCs. Without proper intervention these undiagnosed communication disorders hinder young offenders in their defenses and verbally mediated interventions. Sanger, Hux and Belau (1997) revealed that youths who are unable to effectively express themselves are prompted to respond with aggressive behaviors instead of verbal communication, which perpetuates poor communication and perhaps leads to juvenile delinquency. Young offenders were deemed behavioral delinquents because they demonstrated aggressive behaviors in court. Evidence from a survey by Laz (2009) showed that these behaviors are exhibited when the young offender cannot understand what is being said in the courtroom. These young offenders also showed a trend of reoffending because they did not understand the terms of their sentence of verbally mediated intervention

requirements (Lanz, 2009).

Trends indicate that young offenders with undiagnosed communication disorders go undiagnosed because they are harder to identify than the behavioral issues with which these adolescents present. In Canada, one study found that 50% of adolescents receiving services for an “adjustment disorder” (e.g. behavior and anxiety disorders) displayed language impairments when actually tested for a communication disorder (Cohen *et al*, 1999). The study continued to find evidence that these youths in high-risk situations were receiving services for their behavior disturbances, because these behaviors are physically and readily seen (Cohen *et al*, 1999). Professionals often diagnose behavioral disorders first because it appears to be the problem; when in some cases the underlying problem may be an undiagnosed communication disorder, which when left undiagnosed can lead to lack of confidence and attention seeking behavioral problems. The proposed study will provide insight into the diagnosis of behavioral problems and communication disorders creating awareness into the incidence of this problem in Arkansas.

Prior research has identified a need for SLPs in detention settings but then there is a fallout when looking for widespread research that has been conducted. Leeds Youth Offending Services (LYOS) and other youth service departments in the United Kingdom (UK) funded an experienced SLP to work three and half days a week over seventeen months (equivalent to one year of full time services) to work with young offenders in ISSP (Bryan & Gregory, 2009). The SLP was to identify any delays (standardized testing), survey feelings toward communication with offenders and caseworkers, plan intervention needs, complete therapy, and advise LYOS case-workers on intervention techniques. Speech-language therapy services were provided both individually and in group settings depending on the diagnosis. After one therapy year,

improvements were measured by repeating the standardized tests and surveys. The results showed that after intervention 75% of individuals improved on all targeted communication areas and 88% increased their standardized test scores (Bryan & Gregory, 2009). The young offenders and their caseworkers were then resurveyed to find significant results. Caseworkers said not only did the young offenders improve their school work and confidence but also their performances in court and rehabilitation services. One participant responded that they were able to communicate in court and understand what was happening for the first time (Bryan & Gregory, 2009). The services provided to these young offenders that previously were not given, allowed them to improve their communication skills immensely. A program similar to this has not been presented in Arkansas yet and the positive results shown suggest that not only does it work but it could significantly help those in Arkansas JDCs to prevent reoffending.

### **Research Questions**

Question 1: What are the opinions of the current speech-language therapy services in JDCs in Arkansas?

Question 2: What benefits would more comprehensive speech-language therapy services for all juvenile offenders have on recidivism rates?

Question 3: Would it be easy and beneficial to have a full-time speech-language pathologist on staff at JDCs in Arkansas?

## Methods

### *Participants*

Ten professionals associated with the juvenile detention centers (JDC) in Arkansas. Three participants were speech-language pathologists with between one to ten years of experience in Arkansas JDC. Two participants were legal professionals with experience with juvenile offenders and three participants were JDC employees whose experience was with juvenile offenders within the JDC setting.

### *Measures*

An anonymous online survey using Qualtrics was used to collect data from participants. Each questionnaire was tailored to the profession of the respondent to ensure that their responses could be analyzed between and within the sample. All responses were the opinions of the participants in this study. The participants were encouraged to use their judgement and closest opinion to the prompt.

The Likert scale prompts for the SLP participants were as seen in Table 1. The participants were given the options from strongly disagree to strongly agree.

	<b>Table 1: Prompts for SLP.</b>
1.	A communication disorder would make it difficult for an adolescent in a juvenile detention center.
2.	Adolescents should be evaluated for communication disorders when entering into a juvenile detention center.
3.	Communication disorders make it difficult for adolescents to participate in verbally based rehabilitation programs.

4.	Current speech-language services provided in juvenile detention centers are adequate.
5.	Having a speech-language pathologist on permanent staff at a juvenile detention center would benefit adolescents with communication disorders.
6.	Pragmatic group sessions led by a speech-language pathologists can benefit adolescents in juvenile detention centers.
7.	Providing adolescents with pragmatic therapy sessions would be beneficial for them during their legal proceedings.
8.	Speech-language services should be provided outside of the special education curriculum.
9.	The use of verbal/ group therapy offers an equal opportunity to those with communication disorders.

The legal professionals were given profession specific questions. The Likert scale presented to them included the same options from strongly disagree to strongly agree but utilized different questions. The prompts provided to the legal professionals are provided in Table 2.

	<b>Table 2: Prompts for Legal professionals.</b>
1.	It would be beneficial to have a speech-language therapist available to help with trial preparation.
2.	It would have been beneficial for my client to have a speech-language pathologist available to them during their trial.
3.	Conditions of release for adolescents are centered around verbal communication therapies.

4.	It is fair to enforce language-based therapies on juvenile offenders with speech-language disorders.
5.	It would be beneficial to have information on speech-language disorders when working with juvenile offenders.
6.	It would be beneficial to have detailed information on the effects a communication disorder can have on juvenile offenders.
7.	I would be willing to receive information from a qualified speech-language therapist to gain insight into communication disorders.
8.	If conditions of release were contingent on an adolescent's communication disorder could the recidivism rates be reduced.
9.	A mandatory community based program post-release could be beneficial to juvenile offenders.

Juvenile detention center employees were given profession specific questions. The Likert scale presented to them included the same options from strongly disagree to strongly agree but utilized different questions. The prompts provided to JDC employees are described in Table 3.

	<b>Table 3: Prompts for JDC employees.</b>
1.	Communication disorders are common among adolescents in JDCs.
2.	It is hard to interact with adolescents with communication disorders.
3.	Communication problems present difficulties for adolescents in JDCs.

4.	It would be beneficial for adolescents to have group therapy led by a speech-language pathologist.
5.	Adolescents in JDCs have ample opportunities to work on pragmatic skills (appropriate communication) while in JDCs.
6.	Rehabilitation for juvenile offenders that is based on verbal communication is common.
7.	It would be beneficial to have a speech-language pathologist on staff at JDCs.
8.	It would be easy to incorporate a speech-language pathologist on staff at JDCs.
9.	Adolescents with communication problems are at a disadvantage when their conditions of release include communication based rehabilitation.

### *Analysis*

Data were sorted by each professional category. Questions that were presented to multiple categories were compared among the groups and questions tailored to a specific profession were analyzed within the group. The data gathered from the questionnaires were analyzed for differences and similarities between the scaled questions. The data from the open response questions were interpreted for similarities but not compared.

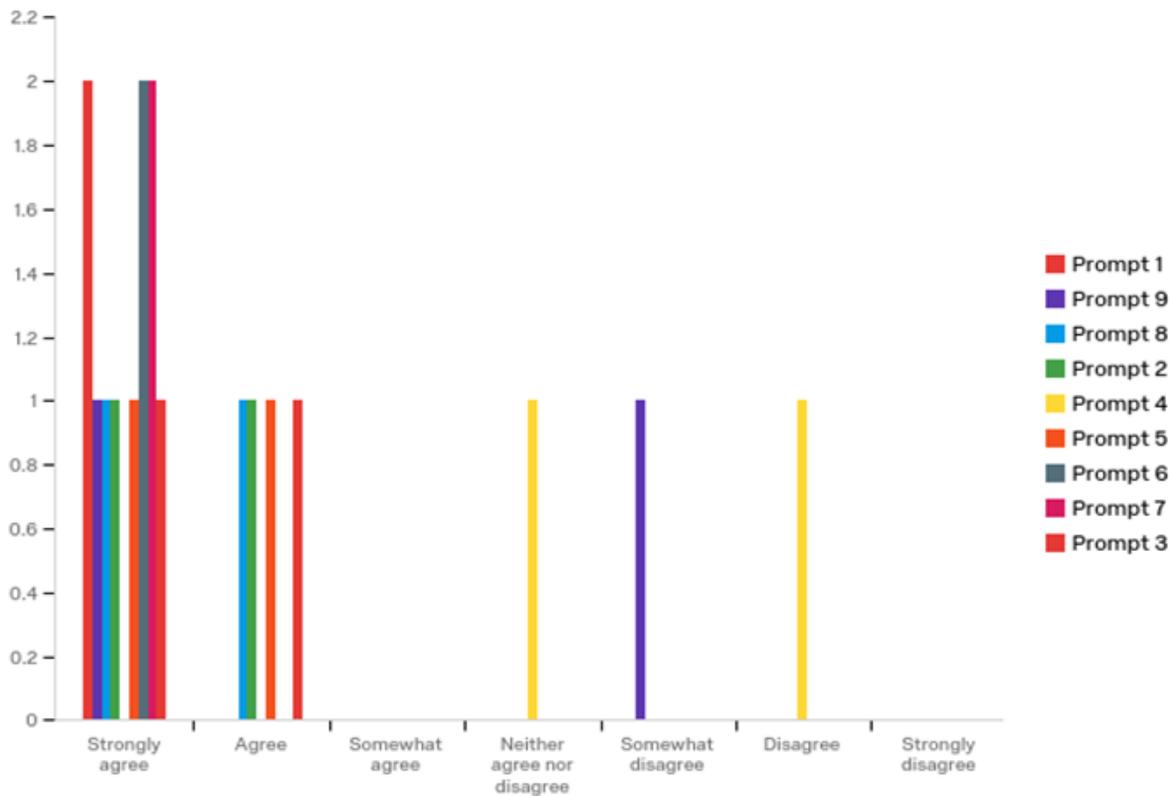
## **Results**

### **Speech-language pathologists**

The results for the three SLP respondents were analyzed to determine responses and trends within the questions. All the participants indicated that in their opinion some juvenile offenders have un-diagnosed communication disorders. One of the participants is currently providing speech-language therapy services in Arkansas JDC and none were providing

evaluations or consults. One participant explained that they believe SLPs would be beneficial in the JDC setting because “Effective communication, including pragmatic language skills, is essential to participating appropriately in group situations. Group situation includes during time in the detention as well as post-rehabilitation”. The other open response agreed that it would “absolutely” be beneficial to have SLPs in JDC and explained “I think they can shed light on an initial intake as to what areas this particular child may struggle with before they proceed.” Figure 1 shows the responses to the Likert scale prompts that were described in Table 1.

Figure 1: SLP responses from the prompts in Table 1.



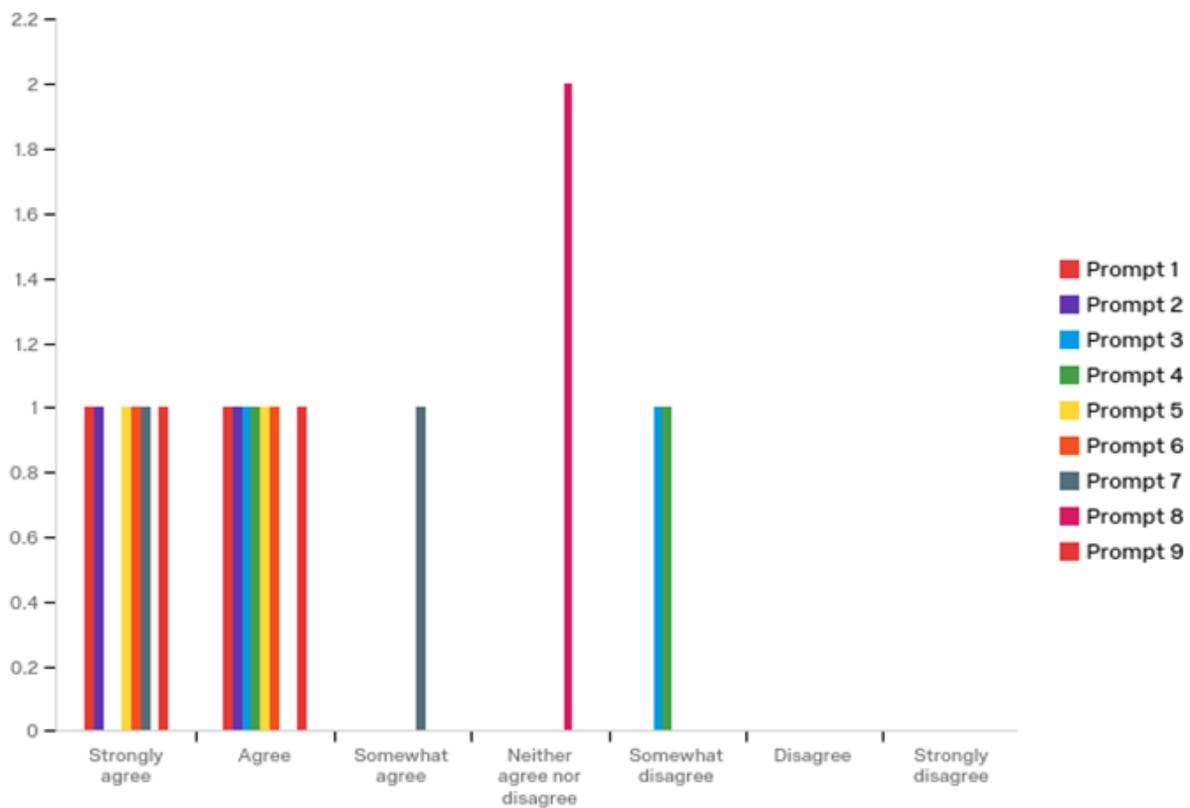
### Legal Professionals

One respondent is currently a practicing attorney and the other is a law professor who is

not currently practicing. Neither of these legal professionals have worked with SLPs in JDCs in Arkansas but both had legal experience with juvenile offenders in Arkansas. Participants in this group followed the trend of the need for more intervention within the residential facilities.

Responses were 100% in agreement for having SLPs available for juveniles throughout the trial period and that they would be willing to receive training materials from SLPs on how to best serve juvenile offenders with communication disorders. The Likert responses for the prompts in Table 2 are shown in Figure 2.

Figure 2: Legal professional responses from the prompts in Table 2.

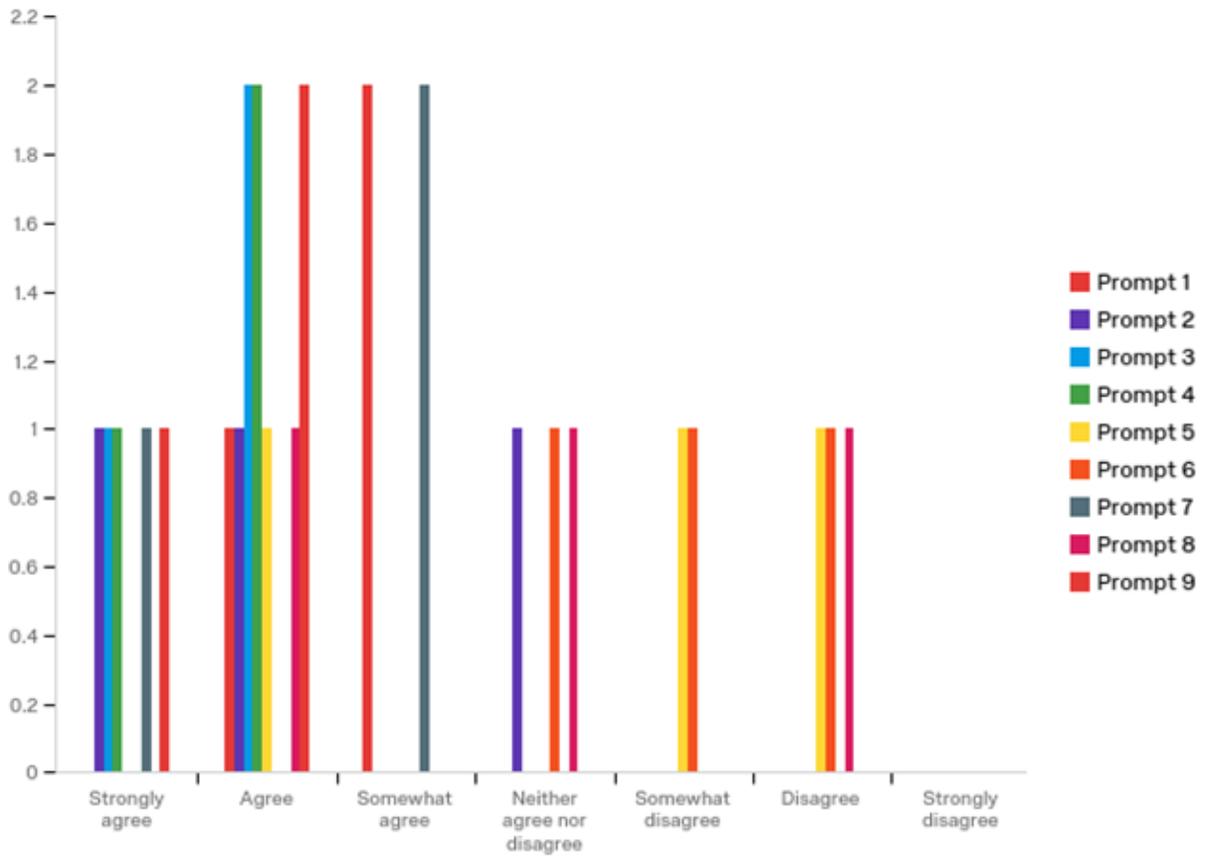


### Juvenile Detention Center Employees

The group of JDC employees showed more skewed data because the participants work in

different areas within the JDC setting. None of the participants had experience working with SLPs in JDC and only one respondent had verbal interaction with a juvenile offender with a diagnosed communication disorder. While a significant number of responses were on trend the response to the ease of implementing a full-time SLP into the residential facility with responses trending to disagreeing and only one response agreeing with the process being simple.

*Figure 3: JDC employee responses from the prompts in Table 3.*



*Figure 3: JDC employee responses from the prompts in Table 3.*

## **Discussion**

The current study was meant to produce a statement of need about SLPs serving the juvenile offender population in juvenile detention centers in Arkansas. The specific aims were 1) to determine if different professions agreed that SLT services would be beneficial in a juvenile residential facility, 2) to obtain information about the presence of juvenile offenders with undiagnosed communication disorders, and 3) to indicate whether they believe that current SLT services are adequate for juvenile offenders.

Results from the survey followed the expected trends. All professions indicated that they believe that there are some juvenile offenders with communication disorders that affect their ability to communicate while in the juvenile justice system. Analysis of the data in the groups remained stable within the groups, but the differences between the groups did exist. Unlike the other groups, the JDC employees did not agree with the statement that the implementation of a full-time SLPs in JDCs would be an easy adjustment.

When analyzing the data about current SLP services in the JDC setting there was a consensus about the current services being sub-par. The consensus across the groups was that the current programs provided in residential facilities are not directed to juvenile offenders with communication disorders. The participants in this study all indicated that all the participants believed that the SLP services should be provided throughout the offender's stay in a residential facility.

### ***Limitations***

While the current study aimed to provide quantitative and qualitative data on speech-language pathology in JDC in Arkansas, there were limitations that future studies need to address. First the small sample size limited the experiences of the professionals that the survey

was able to target. The time constraints of this research placed a limitation on how many participants were able to contribute. Due to the baseline nature of this research, the data did not include an in-depth analysis on juvenile offenders with communication impairments. Another limitation of the study was the online nature of the survey: whilst this helped recruit participants, it also removed the interaction component of research that may have influenced people's hesitation toward participating in the research.

Subsequent studies should include a larger sample size with more professionals who interact with juvenile offenders. Future studies should also determine whether quantitative data is needed or whether qualitative data is more beneficial in this research.

### ***Future Directions***

Due to the baseline nature of this research there are many opportunities for future research. The next step in research is to look into the logistics of placing an SLP into the JDC setting on a more permanent basis. This SLP would be available to residents starting with their intake through to their stay and finally their release and not just serve the population through special education services and Individualized Education Plans. Another step in the research would be to identify exactly what evaluation protocol would benefit residents in JDCs. Creating an evaluation protocol for the intake process and the time before sentencing is another potential research study. Future research should analyze the most appropriate tests for different age groups within juvenile facilities and which tests are most appropriate for language history and current educational and communication statuses.

Another area of study that should be considered is literacy skills within this juvenile offender population. Completing literacy evaluations and examining the reading and writing skills of residents and offenders could open a significant research area that needs to be

completed. Research in literacy and comprehension has the potential to transition into research on Miranda Rights for juveniles, especially those with receptive language disorders.

The participants of the current research indicated that professionals would be willing to receive training by SLPs with experience within the justice system to ensure that the best outcomes can be achieved for the juvenile offenders within their care. Research into the training of legal professionals to identify the signs of a communication disorder is an avenue of research that should be investigated. For employees in the JDC setting, research into how SLPs can train them to make accommodations for juvenile offenders with communication disorders and how to use different communication techniques with these offenders would be useful. Another avenue of research is in training law enforcement to adjust their interview techniques and methods of communication when interacting with offenders with communication impairments. When law enforcement officers detain juvenile offenders the barriers between them and juvenile offenders should be explored to determine how communication disorders affect these interactions.

While the current study focused on the juvenile justice system, the adult prison population is an area that can also use the results from this study to complete more research in the older populations and look at possible savings and recidivism. Another potential area of research would be to follow juvenile offenders after their release to see what intervention techniques would benefit these individuals in their community-based programs.

### ***Conclusions***

Though research on juvenile offenders is not uncommon, research on speech-language pathology services for juvenile offenders is lacking and warrants further investigation. Despite its limitations, the current study provided a statement of need for speech-language pathology

services in juvenile detention centers. The results indicated that the professionals who participated believe speech-language pathology services would be beneficial for juvenile offenders in the intake process, the trial period, the incarceration period and the release process.

## References

- Sickmund, Melissa, and Puzanchera, Charles (eds.). (2014). *Juvenile Offenders and Victims: 2014 National Report*. Pittsburgh, PA: National Center for Juvenile Justice.
- Arthur, P. & Roche, T. (2008). *Juvenile Justice Reform in Arkansas: Building a Better Future for Youth, their Families, and the Community* (Rep.). Little Rock, AR: Division of Youth Services.
- Salary.com, S. B. (2017, March 31). Arkansas Speech and Language Pathologist Salaries. Retrieved from <http://www1.salary.com/AR/speech-pathologist-salary.html>
- Arthur, P., & Hartney, C. (2012). *Arkansas Youth Justice: The Architecture of Reform*. National Center for Youth Law and National Council on Crime and Delinquency.
- American Speech and Hearing Association. (1977). Speech Pathology/ Audiology Service Needs in *Prisons Task Force Report*.
- LaVigne. M. & Van Rybroek, G. (2010) Breakdown in the Language Zone: The Prevalence of Language Impairments among Juvenile and Adult Offenders and Why it Matters. US Davis *Journal of Juvenile Law and Policy*. University of Wisconsin Legal Studies Research Paper No. 1127, 1-90.
- Clegg, J., Hollis, C., & Rutter, M. (1999). Life Sentence. *RCSLT Bulletin*. 1-7.
- Sanger, D., Moore-Brown, J., Montgomery, J., Rezac, C., & Keller, H. (2003). Female incarcerated adolescents with language problems talk about their own communication behaviours and learning. *Journal of Communication Disorders*, 36, 465-486.
- Bryan, K., Garvani, G., Gregory, J. & Kilner, K. (2015). Language difficulties and criminal justice: the need for earlier identification. *International Journal of Language &*

*Communication Disorders*, 5, 763–775.

Gregory, J., & Bryan, K. (n.d.). *Evaluation of the Leeds Speech and Language Therapy Service Provision within the Intensive Supervision and Surveillance Programme provided by the Leeds Youth Offending Team* (Rep.). Retrieved March 11, 2016.

Sanger, D., Creswell, W., Dworak, J., & Schultz, L. (2000). Cultural analysis of communication behaviors among juveniles in a correctional facility. *Journal of Communication Disorders*, 33, 31–57.