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**Representation of Cued Speech in
Teacher of the Deaf and Hard of Hearing Preparation Programs**

By

Aaron Rose

**An Independent Study Submitted in partial fulfillment of the requirement for
the Degree of:**

Masters of Science in Deaf Education

**Washington University School of Medicine
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**Approved by
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Abstract

This descriptive study investigates the representation of Cued Speech in teacher of the deaf preparation programs as well as attitudes towards inclusion of Cued Speech in those programs in the context of the 2004 reauthorization of IDEA. The issue of Cued Speech is discussed as a communication modality and implications for deaf education are presented.

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Introduction

The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA) saw an inclusion of cued language services in both part B and part C. The term cued *language* refers to the language that is conveyed using Cued Speech, a visual communication mode that uses hand cues as phonemic units to represent spoken language. Just as spoken language is presented through speech articulation that results in auditory signals, cued language is represented through hand cues. The presence of cued language services in federal legislation indicates a need for postsecondary institutions to address Cued Speech as a communication modality.

Teachers of the deaf and hard of hearing typically receive training from postsecondary institutions that provide specialized preparation in language development of children with hearing loss. As a result of the No Child Left Behind Act (NCLB), which was passed in 2001, teachers of the deaf and hard of hearing have a professional obligation to achieve status as highly qualified teachers. The question posed here is whether the curricula of teacher preparation programs in education of the deaf and hard of hearing reflect the inclusion of cued language services within context of IDEA 2004. This paper will provide information on the extent of Cued Speech instruction within postsecondary teacher preparation programs. A review of the literature reveals little information on the representation of cued language and Cued Speech in those preparation programs. Current preparation programs are examined in terms of program philosophy and degrees conferred without defining a possible primary specialization. Within those programs, some program coordinators or directors responded to a survey addressing the representation of Cued Speech and attitudes towards the communication mode in their programs. Survey results are reported and implications discussed for teacher preparation programs in education of the deaf and hard of hearing.

Cued Speech in Deaf Education

Federal legislation addressing education of children with disabilities now includes language that provides protection of Cued Speech as a recognized communication mode. Part C of IDEA 2004 designates cued language services as part of early intervention services provided for at-risk children. Furthermore, Part B of IDEA 2004 regulations include cued language transliteration in the area of interpreting services. This recognition of cued language services

highlights the progress Cued Speech has made as a valid mode of communication for children who are deaf and hard of hearing.

Established over 40 years ago by a physicist, Cued Speech was conceived of visually expressing spoken language to facilitate phonemic awareness, which in turn would lead to development of the phonological skills that are necessary for bottom-up reading skills in early literacy development (Cornett & Daisy, 2001). The consequences of hearing loss have been present in the form of literacy development with the average reading levels of deaf or hard of hearing adults at the 3rd to 4th grade level, while hearing peers achieved on average a 10th grade reading level (Traxler, 2000). Anecdotal reports and case studies show a trend in children with hearing loss exposed to Cued Speech; those children acquire spoken language at a normal rate compared to typically hearing children (Cornett & Daisy, 2001; Crain, 2010).

Describing the differences between the terms *cued language* and *Cued Speech*, Portolano (2008) addresses Cued American English as a variety of the English language and describes the linguistic features of cued languages in relation to spoken language, while examining parallels and contrasts between signed and cued languages. Fleetwood and Metzger (1998) provide a linguistic analysis of cued language structure at the phonological level and address implications for bilingual education and literacy of children with hearing loss. Building on Fleetwood and Metzger's analysis, Portolano expands the idea of cued English as a natural representation of English

Typically hearing children have access to the ambient language of their environment in the form of spoken language. Children of deaf parents typically have access to a visual mode of communication, whether it is sign language or cued language. For children with hearing loss, the ambient language can be either spoken, signed, or cued language. Numerous case studies and scientific analyses of Cued Speech present the idea of Cued Speech as a visual means of acquiring the ambient language of normally hearing individuals. (Crain, 2010; Kylo, 2010; Crain & LaSasso, 2010).

The existence of active Cued Speech communities is evident through the presence of regional organizations, cue camps, and workshops throughout the United States (National Cued Speech Association 2010). The extent of these communities is not known; however American Annals of the Deaf reported in a national survey that 14% of educational programs for deaf students included Cued Speech as an option (Anon. 1999). Such a low representation may serve

as an indicator of the representation of Cued Speech in teacher preparation programs. Whether the representation of Cued Speech in teacher preparation programs matches the percentage of educational programs including Cued Speech as an option remains to be determined.

Review of Literature on Teacher Preparation Program in Deaf Education

A number of articles have evaluated teacher of the deaf and hard of hearing preparation programs in various contexts from manual communication instruction to overall readiness of pre-service teachers. The field of deaf education has maintained a dynamic state in the development and implementation of communication modalities and instructional approaches for educating children with hearing loss. To become a teacher of the deaf and hard of hearing, one must enter a process of professional preparation and development in meeting the criteria for highly qualified educators (Johnson, 2004; Compton, Niemeyer, and Michael, 2004; Jones & Ewing, 2002; Fوسفeld, 1997; Brill, 1997). The No Child Left Behind Act requires all teachers to have a bachelor's degree, whether they are in general education or special education. Postsecondary institutions are charged with the obligation of conferring degrees to teachers who meet the standards set forth by each preparation program.

In an examination of teacher preparation programs at the university level between 1986 and 2008, Dolman (2008) presents a comparison of course requirements for those programs. His findings indicate a dramatic decrease in the number of preparation programs for teachers of the deaf and hard of hearing and a shift in curricula towards licensure areas to follow state level standards. The proportion of graduate programs to undergraduate programs increased, indicating a trend towards master degrees and national certifications. Dolman evaluated the number of credits required for speech- and hearing- related courses, specific manual communications, and American Sign Language. He noted an increase in American Sign Language courses and a decrease in speech- and hearing- related courses, despite literature reporting benefits of early implantation in children for language development (Nichols & Geers, 2007). Dolman did not distinguish differences between Cued Speech and manually coded systems in evaluating the extent of manually coded English courses.

Federal legislation has affected how teacher preparation programs effectively train their pre-service teachers in meeting the standards set forth by each state. Luft (2008) defines educators' roles and responsibilities in the context of IDEA and NCLB, maintaining a general

overview of services within education of the deaf and hard of hearing in context of the individualized education plan. She explores issues within the language of NCLB and discusses the consequences of teachers specializing in specific content, specifically disability content in regards to interaction with general education teachers. Despite a reference to American Sign Language in her conclusion, Luft does not address the specific services outlined within IDEA, including cued language and sign language services.

Along the same lines of highly qualified teachers, Scheetz and Martin (2008) define the characteristics of master teachers in response to a lack of census in the field of deaf education. Members of national organizations in the field of deaf education were given the opportunity to complete a questionnaire with a modest stipend for time spent. The authors investigated the attitudes and values towards specific criteria. Effective use of American Sign Language and visual representations of English while teaching were presented as criteria for behaviors and skills. Cued Speech could possibly be perceived to fall into the category of visual representations of English, since this label is an accurate description of Cued Speech, but the authors did not make any distinctions within this category. The authors included Cued Speech in the list of communication modalities, but specifically addressed sign language in terms of language development and communication interactions. The questionnaire revealed educators and administrators typically place importance on communication skills for meeting students' needs, indicating an impetus for teacher preparation programs to address communication modalities in depth.

Preparation programs have the choice of focusing on specific philosophies in education of the deaf and hard of hearing, and are typically divided into oral education and bilingual education with an emphasis on American Sign Language. Some programs may address multiple philosophies, but place emphasis on a certain philosophy. Two studies reveal the different approaches in these teacher preparation programs. Lartz and Litchfield (2005) evaluated the levels of importance of various competencies for teachers as rated by administrators of oral and comprehensive deaf and hard of hearing programs. In developing the survey the authors incorporated standards from the Council on Education of the Deaf, the Alexander Graham Bell Association and the Council for Exceptional Children. The survey results provide data on what competencies are most important in designing teacher of the deaf and hard of hearing preparation programs to best prepare its pre-service teachers for an auditory-oral environment. Humphries

and Allen (2008) describe the development and implementation of a teacher preparation program addressing best practices in bilingual education and deaf education and drawing connections between ASL and literacy. The authors presented their hypothesis that pre-service and in-service teachers needed bilingual ASL-English fluency and cross training in deaf education and bilingual education. Both studies addressed different philosophies, but highlighted aspects of designing preparation programs to fit the preferred philosophy of that program. As shown in both studies, there is no one standard approach to communication modalities in preparation programs for teachers of the deaf and hard of hearing despite the presence of the Council on the Education of the Deaf (CED), which provides national certification to teachers who graduate from programs endorsed by the CED.

Traditionally the Council of Education of the Deaf endorses programs in several areas: early childhood, elementary, secondary, and multiple disabilities. Johnson (2004) took a critical analysis of the CED standards for teacher preparation programs and proposed an alternative approach to teacher preparation reform. Johnson's analysis of the CED standards reveals limited standards on communication modalities, mainly in regards to American Sign Language. Furthermore he discusses important competencies in deaf education, drawing attention to Rittenhouse and Kenyon-Rittenhouse (1997) which included a competency for Cued Speech that received a score of 1.7 out of a scale of 1 to 10, the lower values being less important. In Johnson's analysis of posted job descriptions (2001) he found the following communication modalities and skills to be important competencies: ASL, oral communication, and Total Communication. Through both the survey study and posted job descriptions Johnson provides information on what administrators and teachers consider to be important skill sets in the field of deaf education, revealing a lack of attention to Cued Speech.

An examination of manuals published by the CED for preparation programs revealed three general philosophies: auditory-oral, bilingual-bicultural, or comprehensive (CED, 2003). Additionally the manual on evaluation of programs included Cued Speech in principal modes of communication addressed in each program. Both manuals were last revised in 2003, indicating that the CED has not updated its manuals to reflect the inclusion of cued language services and additional services in the field of hearing loss in the 2004 reauthorization of IDEA. Inclusion of standards addressing cued language services in the CED's manuals would likely have a direct impact on how teacher preparation programs include Cued Speech in their curricula.

As seen in the diversity of teacher preparation programs, deaf education encompasses a wide variety of areas from communication modalities to evidence-based practices in facilitating language development of children with hearing loss. Historically Cued Speech has not received much attention in the field of deaf education in terms of communication and applications within the classroom, despite numerous case studies highlighting Cued Speech's impact on children's language development. There is limited information on the representation of Cued Speech in programs that prepare teachers of the deaf and hard of hearing, indicating a need for assessment of such representation in these programs.

Representation of Cued Speech in Teacher Preparation Programs

Purpose of the Study

A critical analysis of the representation of Cued Speech in teacher preparation programs is needed to provide evidence to whether implications of research findings on Cued Speech are being carried over to the area of teacher preparation. The purpose of the study is to determine whether programs offer comprehensive information on communication modalities in deaf education, including Cued Speech.

Current Teacher of the Deaf Preparation Programs

A Web site search of teacher of the deaf preparation programs was carried out in November of 2009. The criterion for teacher of the deaf preparation programs to be included in the study involved a minimum of a bachelor's degree in education of the deaf and hard of hearing. The majority of identified programs were listed on the Council on Education of the Deaf Web site (www.deafed.net). This Web site provided contact information along with program degrees and program type or philosophy. Philosophies reported included auditory-oral, auditory verbal, bilingual, comprehensive, eclectic, and total communications. One more program was identified through a query of deaf education programs through Google's Internet search engine. Overall, 73 programs were identified as having a teacher of the deaf or hard of hearing preparation program in 39 states and the District of Columbia. A directory of teacher preparation programs published in American Annals of the Deaf (2008) was used as a reference. A comparison of both lists of programs revealed that eight programs listed on in the 2008 list were not included on the CED Web site. A search for those specific programs revealed that they did not confer degrees in education of the deaf and hard of hearing or were inactive; therefore they were not included in the current list of preparation programs. The CED list included the date

each program's contact information was last updated, with the oldest information going back to 2005. Contact information was determined to be relatively the same among all the programs included in both directories.

Survey Questionnaire

An initial email requesting permission for participation in a survey of teacher of deaf preparation programs was sent out to the designated contact for all 73 programs listed in this study. These contacts served as coordinators or directors of the programs in question. Nine emails were returned back as undeliverable. Only 47.9% (35) responded with 34 respondents providing consent to participation. In January individualized messages were sent to the 34 participants informing them that the survey was available for completion. A unique Web site link was sent to each participant so that I would know whether that person accessed the survey or not. A follow-up email was sent a month later to participants that had not yet accessed the online survey. Upon viewing the first page of the survey, participants read the description of the study and their rights as research participants, along with contact information for queries.

The survey was created using Survey Monkey, an Web-based survey software, to quantitatively assess the representation of the communication modalities (spoken languages, American Sign Language, cued languages, and other manual communication systems) taught in teacher preparation programs. Another goal of the survey was to elicit comments from coordinators or supervisors of teacher preparation programs about their thoughts on the role of Cued Speech in deaf education. Using Survey Monkey allowed for submissions to be anonymous while determining whether each participant had accessed the survey. As per the guidelines of the Human Research Protection Office of Washington University in St Louis, no information about the identity of the program or the respondent was collected in order to maintain anonymity.

The survey comprised eight sections that addressed degrees conferred, specialization, program philosophy, credit requirements, manual communication courses, required textbooks and resources, instruction availability, and attitudes towards Cued Speech in preparation programs. The first seven sections were forced-choice questions with the last section presenting two open-ended questions, eliciting comments on how each program addressed Cued Speech in its curriculum and whether respondents felt that future teachers of the deaf and hard of hearing should learn about Cued Speech. For study purposes respondents were the subjects of review in the context of analyzing the survey results.

Results*Descriptive Characteristics of the Programs*

Table 1.

Types of degrees conferred in each program

	<i>Program Count</i>	<i>Program Percent</i>
Undergraduate Studies	14	19.1%
Graduate Studies	51	69.9%
Not Reported	8	11.0%
Total	73	

Table 2.

Program Philosophies

	<i>Program Count</i>	<i>Program Percent</i>
Auditory-oral/Auditory-Verbal	8	11.0%
Bilingual/Bilingual-Bicultural	7	9.6%
Comprehensive	36	49.3%
Auditory/Bilingual/Total Communication	3	4.1%
Eclectic	3	4.1%
Print	1	1.4%
Not reported	15	20.5%
Total	73	

In the current list of teacher preparation programs the majority of programs included graduate studies while a lower number offered undergraduate degrees. Half of the programs followed a comprehensive philosophy to deaf education with a number of programs addressing either oral education or bilingual education individually. Jones and Ewing (2002) analyzed teacher preparation in deaf education, more specifically programs approved by the CED, identifying 46 programs of which 39 were comprehensive, five auditory/oral, and two bilingual-bicultural. Only 36 programs listed on the CED Web site reported any type of CED endorsements, indicating a decrease of 10 programs that received endorsements since Jones and Ewing's report on CED-approved programs. Not all programs included in the current CED list

reported endorsements, with 37 programs receiving endorsements in early childhood, elementary, secondary, and/or multiple disabilities. The list of programs in this study indicates that more programs have identified themselves as focusing on auditory-oral/auditory-verbal practices and bilingual education.

Survey Results

A total of eighteen individuals (52.9% open rate) accessed the survey with seventeen completing the survey (50% completion rate). All respondents considered their programs to prepare teachers of the deaf.

Table 3.

Type of Specialization offered in each program

	Program Count	Program Percent
Elementary	18	100%
Secondary	15	83.3%
Early Childhood	11	61.1%
Multiple Disabilities	6	33.3%
Special Education	1	5.6%
English as a Second Language (ESL)	1	5.6%
AVT and AV ed	1	5.6%
Total Respondents	18	

In terms of specialization all programs addressed elementary education, with secondary education present in 83.3 % of the programs as seen in Table 3. Over half of the programs also had specializations in early childhood. Three respondents reported other areas; special education, ESL, and AVT and AV ed. 77.8% (14) of respondents reported their programs as being comprehensive while 16.7% (3) respondents reported philosophies in auditory-oral/auditory-verbal. Only one respondent reported a bilingual-bicultural philosophy.

Table 4.

Degrees and certifications conferred by each program.

	Program Count	Program Percent
Undergraduate	9	50.0%
Bachelors of Arts	6	33.3%
Bachelors of Science	3	16.7%
Graduate	14	77.8%
Masters of Arts	4	22.2%
Masters of Science	10	55.6%
State-level Certification	15	83.3%
Council on Education of Deaf Endorsements	10	55.6%
Total Respondents	18	

Half of all respondents reported their programs to confer undergraduate degrees, while 77.8% of programs conferred graduate degrees. State-level certification was reported in 83.3% of the programs, the largest proportion of any type of degree or certification conferred.

Credit Requirements

88.9% of the respondents reported their programs to have credit requirements in oral education and American Sign Language. Half of the programs included credit requirements for other manual communication systems not defined in the survey, while only two programs (22.2% of respondents) included Cued Speech as a required course. All respondents reported that their program did not offer elective classes in American Sign Language, while only one program had Cued Speech as an elective course.

Manual Communication Courses

Table 5.

Number of required courses for American Sign Language and Cued Speech.

Manual Communication Courses	<i>None</i>	<i>1-2</i>	<i>3-4</i>	<i>5-6</i>	<i>7 or more</i>	<i>Total</i>
American Sign Language	1	7	5	3	1	17
Cued Speech	16	1	0	0	0	17

Table 5 shows the number of required courses for American Sign Language and Cued Speech, indicating that 52.9% of the programs required at least three courses in American Sign Language, while only one respondent reported their program to require one to two courses in Cued Speech, despite two respondents reporting that their program included Cued Speech in their credit requirements.

Table 6.

Required Textbooks or materials on each modality

Communication Modality	Yes	No
American Sign Language	16	1
Auditory-Oral	16	1
Other Manual Communication	6	11
Cued Speech	2	15
Total Respondents	17	

Resources

Out of 17 respondents, 94.1% reported their programs as requiring students to purchase textbooks or materials addressing American Sign Language and auditory-oral practices. 11.7% of respondents indicated a requirement of students to purchase resources on Cued Speech and 35.3% of respondents included textbooks or resources on other manual communications.

Instruction Availability

Table 7.

Instructor Availability in Teacher Preparation Programs

	0	1	2	3	4	5	Average
American Sign language	0	0	1	4	2	10	4.2
Auditory-Oral/Auditory-Verbal	0	1	5	3	4	4	3.3
Other Manual Communication	0	1	9	2	2	3	3.0
Cued Speech	7	6	3	0	0	1	1.0

Respondents indicated that instructors in American Sign Language were widely available, while Cued Speech instructors were not widely available or not available at all.

Instructors of auditory-oral or auditory-verbal practices and other manual communication systems were cited as being somewhat available across all programs. Over half of the programs indicated limited availability of instructors of other manual communications. Out of all the communication modalities, ASL was the most available in terms of locating instructors.

Presence of Cued Speech in TOD preparation program

Eleven respondents (68.8%) indicated that students were aware of Cued Speech's status as a federally protected mode of communication. Eleven respondents also reported they included Cued Speech in courses addressing the psycho-social aspects of deafness. As for students requesting additional information on Cued Speech, 37.5% reported that no one requested information, four respondents stated yes, and five respondents were unsure about whether students reported any information.

Qualitative Analysis of Comments

A total of 15 respondents wrote comments on the representation of Cued Speech in teacher preparation programs. Only 11.7% (2) of respondents indicated that Cued Speech was not included in the program, with one attributing the lack of inclusion to state standards and the other implicitly stating that Cued Speech was not a research-validated practice. 86.7% of respondents indicated some level of discussion or exposure of Cued Speech to students within programs. There was general consensus that teachers of the deaf should know about Cued Speech as an option in deaf education as evidenced in 80% of the respondent's answers.

Discussion

The survey results indicate that Cued Speech is addressed in the majority of teacher preparation programs in deaf education to some extent. Only two programs indicated Cued Speech as required courses in the curriculum. Some programs focused on specialization in oral education or bilingual-bicultural education, but the majority of the programs are considered to be comprehensive programs addressing the diversity of educational practices and approaches to deaf education. An examination of the required courses and textbooks or resources for each program reveals that Cued Speech is not necessarily represented in a manner comparative to oral education and bilingual-bicultural education. Lack of regional resources as indicated in the instructor availability for different practices in deaf education could be cited as a factor for the low number of programs offering courses in Cued Speech.

Some of the negative comments refer to research on Cued Speech as being limited or not valid, indicating a bias against Cued Speech as an evidence-based practice. A respondent wrote:

“Cued Speech is not included because it is not a research-validated practice. The only studies (reviewed internationally by Marschark & LaSasso) that showed consistent and positive outcomes were those done in French-speaking Netherlands. Most of the ‘research’ about Cued Speech is anecdotal or not empirically validated.”

This respondent describes research on Cued Speech as without merit and lacking in scientific rigor, and not applicable to the English language, despite the foundations of language development being applied to most spoken languages. A bane of educational research is getting large sample sizes in order to get an accurate representation of the population being observed, another possible factor in the perception of research findings. The recent publication of the book *Cued Language and Cued Speech for Deaf and Hard of Hearing Children* (2010) serves as an indicator of the level of scientific analysis that Cued Speech has received in terms of language development and social communication in the past decade, which could lead to shifts in views of Cued Speech as a communication modality and as an evidence-based practice.

Some respondents addressed Visual Phonics, another phonemic system, as an alternative that has received the attention of a number of school programs in those respondents’ regions. However Visual Phonics is only referred to as a tool for teaching phonemic awareness of spoken language in facilitating early reading skills, and not as a communication modality. Wang, Trezek, Luckner, and Paul (2008) do address both Cued Speech and Visual Phonics in terms of phonology for reading instruction, treating Cued Speech as an instructional tool and not as a communication modality, highlighting the different views of Cued Speech in deaf education.

The reference in a respondent’s comment to state standards draws attention to the issue of preparing pre-service teachers to meet standards for state-level certification:

“The curriculum is mandated by the State of California which does not include any standards that involve Cued Speech. It is unlikely that it will at any time in the future.”

A query of *Cued Speech* and *cued language* within state-level educational agencies' online search engine revealed 13 states with no results and the majority of the 37 other states to provided limited information on Cued Speech in the context of IDEA 2004. Some states did indicate inclusion of Cued Speech in their standards, specifically in regards to cued language transliterating. California's Web site returned a number of documents addressing cued language transliteration which all seemed to present the idea that children with hearing loss had the right to access cued language services in the educational setting. The rest of the states that returned hits in the query indicated awareness of cued language services as defined in IDEA 2004. Most programs offer state-level certification, indicating a need to examine each state's guidelines for education of the deaf and hard of hearing beyond the cursory search presented in this study.

The Cued Speech Initiative at University of South Florida (<http://cuedspeech.usf.edu>) is the first of its kind in the country, in which a university provides a specialized program in Cued Speech and cued language services, integrating services with the Speech, Language, Hearing Center at USF. Through online video submissions of expressive final exams, viewers can observe students' fluency levels after a period of Cued Speech instruction (youtube.com/USFcuedspeech). Although USF does not currently offer teacher preparation in the education of the deaf and hard of hearing, this program can serve as a model for teacher preparation programs that desire to integrate Cued Speech into their curriculum.

Conclusions

The goal of this paper was to define the extent to which Cued Speech was included in curriculum of preparation programs for teachers of the deaf and hard of hearing. A survey of administrators or directors of these preparation programs revealed Cued Speech to be discussed at some level in the majority of the programs. Only 18 participants opened the survey and 17 completed it, serving as a small sample (23.3%) in comparison to the number of teacher preparation programs identified in this study. Despite a large proportion of the programs describing themselves as comprehensive, Cued Speech was a required course in only two programs. The majority of the programs did not require courses or the purchase of textbooks or materials addressing Cued Speech, indicating a lack of attention to understanding of and fluency in cued languages and applications of Cued Speech. Furthermore most respondents reported

limited availability of Cued Speech instructors, which would affect the curriculum development of these programs.

Currently the majority of state-level educational agencies recognize the inclusion of cued language services in IDEA 2004. Some of these agencies provide documentation on cued language services, indicating a pro-active effort in accommodating requests for such services. More in-depth research needs to be carried out in regards to how states address the inclusion of cued language services in early intervention and educational services. In light of the No Child Left Behind Act's call for evidence-based practices in education and inclusion of cued language services in IDEA 2004, preparation programs should pay attention to research literature on cued language development and provide courses that include instruction on Cued Speech and fluency development. Additional qualified Cued Speech instructors may more positively impact these teacher preparation programs.

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Appendix A

Letter to Participants

To Whom It May Concern:

I am a second year graduate student in deaf education at Washington University School of Medicine and am currently doing my independent study project. I hope that you may agree to participate in this project. I am exploring how teachers of the deaf are trained. I would like to send you an electronic survey that will ask questions about the kinds of topics your training program covers. The results are anonymous and the survey should only take about 10 minutes to complete. The online surveys will be made available in January. Would you be willing to take the survey?

Thank you for your consideration,

Aaron Rose
2nd Year Deaf Education,
Washington University School of Medicine
rosea@wusm.wustl.edu

Appendix B

Survey Questions and Answers

Introduction Page**1. Cued Speech in Teacher of Deaf Preparation Programs**

This survey will examine the extent to which Cued Speech is addressed within Teacher of the Hearing Impaired programs. The survey includes questions about the curriculum of your program and should take approximately ten minutes to complete. Participation is strictly voluntary and anonymous. No identifying information of any kind will be requested. You may choose to change your mind at any time about participating in this survey.

If you have any questions or comments later, please feel free to contact Aaron Rose at rosea@wusm.wustl.edu. If you were unhappy with your experience please contact Aaron Rose or my faculty advisor, Dr. Heather J. Hayes at hhayes@wustl.edu.

If you would like to speak with someone about your rights as a research participant, please call Dr. Philip Ludbrook at 314-633-7400 or 800-438-0445. Dr. Ludbrook is an employee of Washington University, but is not part of the research team. His job is to make sure that research participants' rights are protected.

Page: Deaf Education Program**1. Does your prepare individuals in becoming teachers of the deaf?**

	Response Percent	Response Count
Yes	100.0%	18
No	0.0%	0
	Answered question	18
	Skipped question	

2. If your answer is no, does your program provide a specialization in deaf education?

	Response Percent	Response Count
Yes	0.0%	0
No	0.0%	0
	Answered question	0
	Skipped question	18

Page: Area of Specialization**1. Specify all areas of specializations that your program addresses**

	Response Percent	Response Count
Early Childhood	61.1%	11
Elementary	100.0%	18
Secondary	83.3%	15

Multiple Disabilities	33.3%	6
Other (please specify)	16.7%	3
Special Education: LD, MD, D/HH		
ESL		
AVT and AVed		
	Answered question	18
	Skipped question	0

Page: Program Philosophy

1. Specify the focus you would classify your program in

	Response Percent	Response Count
Comprehensive (addressing all modalities and approaches in deaf education)	77.8%	14
Auditory-oral/Auditory-Verbal	16.7%	3
Bilingual-Bicultural	5.6%	1
Other (please specify)	0.0%	0
	Answered question	18
	Skipped question	0

Page: Program Degrees

1. Specify all types of certification or degrees offered in your program

	Response Percent	Response County
Bachelor of Arts	33.3%	6
Bachelor of Sciences	16.7%	3
Masters of Arts	22.%	4
State-Level Certification	83.3%	15
Council on Education of the Deaf Certification	55.6%	10
Other (please specify)	5.6%	1
1. Grad program is a M.S. in Early Oral Intervention		
	Answered question	18
	Skipped question	0

Page: Credit Requirements

1. Do your credit requirements include auditory/oral theories and practices

	Response Percent	Response Count
Yes	94.4%	17
No	5.6%	1
	Answered question	18
	Skipped question	0

2. Do your credit requirements include American Sign Language courses?

	Response Percent	Response Count
Yes	94.4%	17
No	5.6%	1
	Answered question	18
	Skipped question	0

3. Do your credit requirements include Cued Speech courses?

	Response Percent	Response Count
Yes	11.1%	2
No	88.9%	15
	Answered question	18
	Skipped question	0

4. Do your credit requirements include other manual communication systems?

	Response Percent	Response Count
Yes	44.4%	8
No	55.6%	10
	Answered question	18
	Skipped question	0

Page: Manual Communication Courses

1. Are Cued Speech courses elective classes?

	Response Percent	Response Count
Yes	5.9%	1
No	94.1%	16
	Answered question	17
	Skipped question	0

2. Are American Sign Language courses elective courses?

	Response Percent	Response Count
Yes	0%	0
No	100%	17
	Answered question	17
	Skipped question	1

3. How many American Sign Language classes are students required to take?

	Response Percent	Response Count
0	5.9%	1
1-2	47.1%	8
3-4	29.4%	5
5-6	17.6%	8
7+	0.0%	0

Answered question	17
Skipped question	1

4. How many American Cued Speech classes are students required to take?

	Response Percent	Response Count
0	94.1	16
1-2	5.9%	1
3-4	0.0%	0
5-6	0.0%	0
7+	0.0%	0
Answered question	17	
Skipped question	1	

Page: Resources

1. Are students required to purchase textbooks or other resources on American Sign Language?

	Response Percent	Response Count
Yes	94.1%	16
No	5.9%	1
Answered question	17	
Skipped question	1	

2. Are students required to purchase textbooks or other resources on Cued Speech?

	Response Percent	Response Count
Yes	11.8%	2
No	88.2%	15
Answered question	17	
Skipped question	1	

3. Are students required to purchase textbooks or other resources on auditory/oral practices?

	Response Percent	Response Count
Yes	94.1%	16
No	5.9%	1
Answered question	17	
Skipped question	1	

4. Are students required to purchase textbooks or other resources on other manual communication systems?

	Response Percent	Response Count
Yes	35.3%	6
No	64.7%	11
	Answered question	17
	Skipped question	1

Page: Instruction

1. How would you rate the availability of American Sign Language instructors in your area? (0 being not available at all and 5 being very available)

	Response Percent	Response Count
0	0.0%	0
1	0.0%	0
2	5.95%	1
3	23.5%	4
4	11.8%	2
5	58.8%	10
	Answered question	17
	Skipped question	1

2. How would you rate the availability of Cued Speech instructors in your area? (0 being not available at all and 5 being very available)

	Response Percent	Response Count
0	41.2%	7
1	35.3%	6
2	17.6%	3
3	0.0%	0
4	0.0%	0
5	5.9%	1
	Answered question	17
	Skipped question	1

3. How would you rate the availability of Auditory-Oral or Auditory-Verbal instructors in your area? (0 being not available at all and 5 being very available)

	Response Percent	Response Count
0	0.0%	0
1	5.9%	1
2	29.4%	5
3	17.6%	3
4	23.5%	4
5	23.5%	4

Answered question	17
Skipped question	1

4. How would you rate the availability of instructors for other manual communication systems? (0 being not available at all and 5 being very available)

	Response Percent	Response Count
0	0.0%	0
1	5.9%	1
2	52.9%	9
3	11.8%	2
4	11.8%	2
5	17.6%	3
Answered question	17	
Skipped question	1	

Page: Presence of Cued Speech in Teacher of the Deaf Training Programs

1. Are students in your program taught that Cued Speech is a federally protected mode of communication?

	Response Percent	Response Count
Yes	68.8%	11
No	25.0%	4
Not Sure	6.3%	1
Answered question	16	
Skipped question	2	

2. Your program includes Cued Speech in courses that cover the psycho-social aspects of deafness (in terms of native deaf cuers, adult deaf cuers, receptive cuers versus expressive cuers, etc.)

	Response Percent	Response Count
Yes	68.8%	11
No	18.8%	3
Not Sure	12.5%	2
Answered question	16	
Skipped question	2	

3. Do your students request more information on Cued Speech beyond what your program provides?

	Response Percent	Response Count
Yes	23.5%	4
No	47.1%	8
Not Sure	29.4%	5
Answered question	17	
Skipped question	1	

4. Please describe how your program addresses and/or includes Cued Speech in the curriculum (e.g., inclusion in discussions about various manual communication modalities, assignments or reports by students on Cued Speech within survey classes, existence of classes that focus on Cued Speech and its research, etc., or not at all)

	Response Count
	16
1.	It is discussed in the language development course, in our speech course and in a separate course devoted to cued speech
2.	Lectures, Cues Speech is a choice for the SED 353 presentation
3.	Included in discussions within survey classes.
4.	It is part of a course on teaching speech to deaf/hard of hearing
5.	Students learn the basic philosophy of Cued Speech and handshapes, positions, locations...they practice basic expressions and research how to find further information if they should need it.
6.	We have one course in manually coded English. Students are introduced to cued speech but do not develop proficiency (but they do in ASL).
7.	We address cued speech in our intro course to the field of deaf education in the section regarding communication modes. Students are allowed to address it in papers and reports. Further cued speech is presented in the ASL for SLP's. We go through the manual on cued speech proficiency.
8.	inclusion in discussions about various manual communication modalities
9.	Addressed in Psycho-Social course. Instructional materials given and videos demonstrating CS are shown. Some students do research papers on CS. ASL classes address CS.
10.	within methods classes; discussions, review of the literature and reports.
11.	Cued Speech is not included because it is not a research-validated practice. The only studies (reviewed internationally by Marshark & LaSasso) that showed consistent and positive outcomes were those done in French-speaking Netherlands. Most of the "research" about Cued Speech is anecdotal or not empirically validated.
12.	I cue slowly, and do introduce the concept with frequent examples. Our library has the instruction videos and dvds. I am currently changing the program to a masters degree with an add-on license, and am considering how to address this issue. I have had a little girl and her family visit and talk about her wonderful success using cued speech, and one of our students was raised with cued speech.
13.	A series of seminars (10 weeks) is offered to students who are interested in learning Cued Speech. Cued speech is addressed in some of our courses (language acquisition, audiology) A series of seminars (10 weeks) is offered to students who are interested in learning Cued Speech. Cued speech is addressed in some of our courses (language acquisition, audiology)
14.	The curriculum is mandated by the State of California which does not include any standards that involve Cued Speech. It is unlikely that it will at any time in the future.
15.	In discussion about various communication modalities. Have a guest speaker who is an

	experienced Cued Speech user who presents to class. Students are required to know basics of system and be able to accurately describe modality to a panel of deaf educators.				
16.	Cued Speech is taught in a 3 semester hour Visual English Systems Course that is taught by a Cued Speech Translator.				
	<table border="1"> <tr> <td>Answered question</td> <td>16</td> </tr> <tr> <td>Skipped question</td> <td>2</td> </tr> </table>	Answered question	16	Skipped question	2
Answered question	16				
Skipped question	2				

5. Do you feel that future teachers of the deaf should know about Cued Speech? Why or why not?

	Response Count
	16
1.	Yes. Increasingly more children in inclusionary programs are cued speech users.
2.	Yes, I think all students majoring in deaf education should know about all communication modes/methods
3.	Not in this part of the country. There are no school programs utilizing cued speech in this area.
4.	Teachers of the d/hh should know “about” cued speech but do not necessarily need courses to become proficient at it. And, speech language pathologists are usually called upon to provide “speech” services. It is impossible to have teachers become proficient in everything through a teacher preparation program. If they decide to work in a school using cued speech then they can get additional training just like those wanting to improve their ASL skills will take linguistics courses post graduation or people taking SEE2 courses. You might ask why become proficient in ASL? In general, teachers who are proficient in ASL and comparative linguistics are better at explaining abstract concepts to d/hh. (in my observations-- no real formative study). And, because so much is focused on auditory/oral abilities the d/hh students are being left behind in curriculum content and social/emotional abilities. We want the teachers to be able to teach the whole child so that hopefully in the future the depression and suicide rates of d/hh students will actually decline instead of steadily increasing.
5.	I think future teachers should have every tool possible but our program is not equipped to provide indepth instruction on that approach....if we had any schools or parents or students who would ask for this service, we would probably infuse it more into our existing curriculum....we have in the past when students moved to the area depending on cued speech interpreters and teachers
6.	Yes as an option.
7.	They should know it is there and that it is an avenue for communication from the oralists' perspective
8.	They should know about cued speech so that when the topic comes up, they are knowledgeable. It is rarely used in this area in any educational program.
9.	Yes. It could be a viable option for some children
10.	Yes! We recognize the importance and are aware that teachers in our region are not using cued speech. As a university we see it as our role to lead the practices in the field.
11.	No, not until it can be shown to be empirically validated in English-using programs. I have visited Cued Speech programs and seen videos and have not been impressed with

	the student outcomes.	
12.	I would like the method to be better understood and respected and used as a tool. Visual phonics is being promoted by our state educational programs, and I see this as a useful tool but watering down the need for cued speech and the hopes of developing a critical mass of users.	
13.	Students who are interested in becoming itinerant teachers should be familiar with and be prepared to use cued speech if that is in their students' IEP.	
14.	We make the students aware of Cued Speech. No school programs in our geographic area have children who use Cued Speech or parents who request it. Parents are interested in including AVT principles into their school programs. Since cochlear implants and other hearing technologies allow full access to the sounds of speech today, Cued Speech belongs to a time in the field when visual means of learning spoken language was necessary. Research is clear that visually-focused spoken language teaching is not as effective as auditory-based teaching.	
15.	Have not seen good research in terms of efficacy	
16.	Yes, b/c it is often selected by parents and it is an excellent support for AO students-especially in phonemic awareness-although folks in my area are impressed with Visual Phonics	
	Answered question	16
	Skipped question	2