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BETTER EMERGENCY CARE FOR THE DEAF POPULATION THROUGH
IMPROVED COMMUNICATION

A Capstone Experience/Thesis Project

Presented in Partial Fulfillment of the Requirements for

the Degree Bachelor of Arts with

Honors College Graduate Distinction at Western Kentucky University

By

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2014

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ABSTRACT

This piece outlines the elements that were involved in my project designed to improve communication between the Deaf population of Bowling Green, KY and the Fire Department, Police Department, and Medical Center. This was done by placing the burden of facilitating communication on the emergency response teams through creating training for them in essential American Sign Language (ASL) signs as specified by the Deaf community. These ASL signs were collected from the Deaf Community through standardized interviews and then utilized to create a training video, poster charts, and brochures.

Keywords: American Sign Language, Emergency Response, Communication, Fire Department, Police Department, Emergency Medical Technicians

ACKNOWLEDGEMENTS

I would like to thank the Bowling Green, KY Deaf Community for their participation and support regarding this project. This project would also have not been possible without the cooperation of the Bowling Green, KY Medical Center, Police Department, and Fire Department. Finally, I would like to thanks the Honors Development Board for their funding through the Honors Development Grant.

VITA

October 30, 1991.....Born – Knoxville, Tennessee
2010.....Marshall County High
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2011.....Study Abroad: England

FIELDS OF STUDY

Major Field: Honors Self-design: American Sign Language Interpreter Preparation

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

Deaf individuals have historically been oppressed and their language dismissed. Before the 19th century, deaf children in America were often sent to asylums, unless they had the good fortune of being born into a wealthy family that could afford to hire a private tutor or to send the child overseas to the Braidwood Academy in Scotland (Moore & Levitan, 2003). However, when Dr. Mason Cogswell's daughter became deaf after an illness, he became concerned for the education of all deaf individuals (including 84 in Connecticut alone). His neighbor, Thomas Gallaudet also had an interest in establishing a school for the deaf and subsequently visited the Braidwood Academy to learn what methods to use when teaching the deaf.

When the school refused to part with their methods of education without an exorbitant fee, Gallaudet decided to visit the French National Institute. Here, he met Laurent Clerc- the star pupil who volunteered to come back with Gallaudet to start the American Asylum for the Instruction of Deaf and Dumb Persons in 1817. The opening of this educational institute not only validated the humanism and intellectual capacity of deaf individuals, it brought about the beginning of an official language for the American Deaf. This language would later become American Sign Language (ASL) as it was influenced and enhanced by indigenous sign systems, like the one utilized by the

large deaf population located on Martha's Vineyard (Groce as cited in Holcomb, 2013, p. 116).

Although ASL is well established and currently the third most widely used language in the United States (Moore & Levitan, 2003), it is widely ignored. This is greatly attributable to Alexander Graham Bell, the leading advocate in the oralist movement. Bell "believed that deafness was a terrible curse... a pathological aberration [that] perpetuated negative genetic traits... that deaf persons weakened the society in which they lived" (Moore & Levitan, 2003, p. 340). He believed this so wholeheartedly that he proposed legislation against "the intermarriage of congenital deaf-mutes" (Moore & Levitan, 2003, p. 340) to prevent deaf individuals from being born (though we know now that only 10% of deaf individuals are born to deaf parents (Holcomb, 2013)). Since he was skeptical of the success of this plan, Bell also proposed "eliminating residential schools, forbidding the use of sign language in the education of deaf pupils, and prohibiting deaf adults from being teachers of deaf children" (Moore & Levitan, 2003, p. 340). Because the oralists were primarily wealthy political leaders, they held great sway, and soon ASL was forbidden in schools for the deaf as the students were forced to try to speak. The result of this was that many deaf individuals never gained full access to any language at all. Henceforth, there was a slow return to the accepted use of ASL and its recognition as a legitimate language.

As its own distinct language, ASL has governing rules specific to itself. It is not merely the expression of English words and grammar on one's hands (Holcomb, 2013). It is also not universal; each country boasts its own sign language. That being said, "the linguistic rules of signed languages all over the world have been found to prioritize the

need for signs to be formed for clear visibility, ease of production, and the requirements of the body” (Dively et al. as cited in Holcomb, 2013, p. 135). There are some parallels between ASL and English: both have intonation (vocal vs. visual), patterns of stress (auditory vs. visual), and grammatical redundancy (Humphrey & Alcorn, 2007).

However, ASL sentences are structured around the primary placement of the topic, while English is placed in subject- verb- object order. ASL is a direct language (ambiguities are not utilized, lending itself to the bluntness found in the Deaf culture) while English is unintentionally (and often intentionally) indirect. In ASL, information regarding time must be given sequentially, in contrast to the “elaborate verb tense system [that] allows incidents to be told without following real- time sequencing” (Humphrey & Alcorn, 2007, p. 229). Negation or affirmation can simply be indicated while signing the verb through the use of a head shake or nod in ASL, whereas in English, additional auxiliaries must be utilized. There are many more differences between ASL and English (or any signed language and spoken language), but these differences are clearly rule-governed in both forms of language.

Unfortunately, due to the long reign of oralism in the educational practices used to teach deaf individuals, most individuals are unaware of ASL’s grammatical structure, let alone its existence at all. There is often skepticism of the unknown and/or misunderstood, which has led to many documented cases of Deaf individuals being mistreated by police officers. Because of misunderstandings due to language barriers, Deaf individuals have had “encounters with impatient, nasty, and brutal police officers, especially on highway patrols” (Moore & Levitan, 2003, p. 505). Deaf individuals have also been wrongly arrested and even shot (i.e. “while reaching for an ID card containing proof of deafness”

(Moore & Levitan, 2003, p. 509) due to a lack of clear communication. This is a problem that must be addressed. The United States government attempted to alleviate these issues with the passing of the Americans with Disabilities Act (ADA) of 1990, which guaranteed Deaf individuals the right to access full communication through resources like interpreters (Holcomb, 2013). However, this Act holds no value when a police officer with no knowledge of ASL intercepts a Deaf individual while on patrol or arrives at an emergency situation. This is why Deaf individuals “believe that all law-enforcement personnel... should have a working knowledge of at least a dozen or two basic signs, plus fingerspelling” (Moore & Levitan, 2003, p. 509).

There is a huge need nation-wide for ASL training programs to be developed for not only police officers, but firefighters and Emergency Medical Technicians (EMTs) as well. Currently, there are two known training programs for police departments to learn how to better meet the needs of Deaf individuals (the Illinois State Police Department and Deaf Hope in partnership with the Oakland Police Department), although this does not necessarily include ASL training (Engelman et al., 2013). There is also shockingly only one documented ASL training program for EMTs (the Lancaster Volunteer Ambulance Corps). I was unable to find information regarding any training courses in ASL for fire departments. Although there is an enormous deficit of ASL training for emergency responders, “several [state officials] brainstormed solutions and cited barriers such as cultural issues, identifying the Deaf before and during emergencies, including Deaf/HH [Hard of Hearing] individuals in mass notification systems, and tailoring messages to this population” (Engelman et al., 2013, p. 7).

There have been several items brought up by Deaf individuals that they believe hearing people should know to avoid and other habits/skills they should adapt. Firstly, ASL is purely a visual language; there is no written form of ASL. This means that emergency responders should not expect Deaf individuals to be able to communicate in English via pen and paper. Although many Deaf Americans are bilingual in ASL and English, there has been a gloss system set up in which English words that convey approximately the same meaning are utilized to represent what the communicator would sign (Moore & Levitan, 2003). These “sentences” that utilize glosses are structurally very different from English phrases and are written in all capital letters (i.e. ‘I went to the store yesterday.’ may be conveyed as ‘YESTERDAY, STORE I GO.’).

Emergency responders should also know that not all Deaf individuals speechread (more commonly referred to as lip reading); in fact, “many deaf people never become very proficient at it” (Moore & Levitan, 2003, p. 192). Therefore, this should never be the relied-upon method of communication. If a Deaf individual can speech read, emergency responders should make sure they speak in their usual fashion at a typical pace (slow, exaggerated mouth movements makes speech reading more difficult). They should also make sure their entire upper body is visible since speechreaders “don’t just look at the mouth; they read the entire face... they note changes in expression, shoulder shrugs, posture, gesture” (Moore & Levitan, 2003, p. 192).

Fingerspelling has been noted as the “useful survival skill for anyone” (Moore & Levitan, 2003, p. 109). In fact, it has been proposed that all should be taught fingerspelling while in preschool or the first grade. Fingerspelling is utilizing specific, standardized handshapes to indicate a particular letter. These handshapes are then formed

sequentially to create words. Within ASL, fingerspelling is typically utilized only at the individual word level; however, it can be used to convey entire sentences and ideas in an emergency situation.

American Sign Language has a long and arduous history, as have the individuals who utilize it. For quite a long time, Deaf individuals and their language were considered inferior. This led to a lack of recognition of ASL even up to modern day. This has created many documented issues between the Deaf community and Police officers. Tragically, even this has not brought about many training programs in ASL for police departments. Training in ASL is also seemingly nonexistent for firefighters and EMTs. This is a huge need that must be filled. This need is not best met through writing notes or speechreading, but through at least basic sign and fingerspelling knowledge on the part of the emergency responders.

CHAPTER 2

INITIAL PREPARATION

My studies in ASL and Deaf culture led me to believe there is a general lack of efficient communication in the majority of communities between the Deaf population and the fire department, police department, and emergency medical technicians (EMTs). My first step of the project was to informally discover if this was true of the Bowling Green, KY community. I began by discussing my project idea of surveying the Deaf community and creating training materials and a class utilizing their responses with my advisor. She suggested I review the materials provided by the Kentucky Commission of the Deaf and Hard of Hearing to better gauge the need for ASL training materials. After reviewing their website, I discovered the only materials provided to facilitate communication between Deaf individuals and emergency responders are Visor Communication Cards (to be kept on the visor of one's personal vehicle, see figure 2.1 and 2.2), ICE (In Case of an Emergency) Communication Cards (to be kept on one's person), and Communication Cards (customizable to meet the needs of that particular Deaf individual). Although it is beneficial for this type of communication facilitation to be provided, it became evident to me that the communication burden was placed solely on the Deaf individuals. There was no expectation, at least at the state level, for emergency responders to become familiar with any sign language.

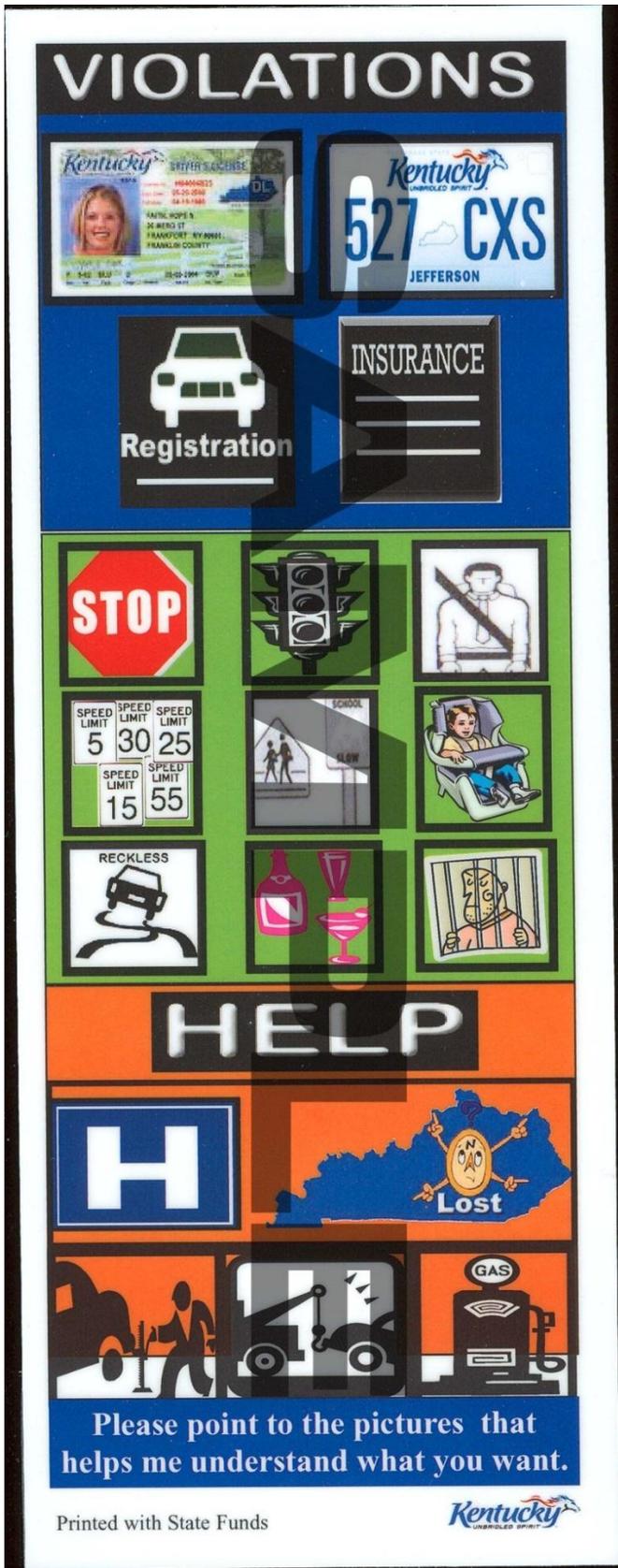


Figure 2.1

Visor Communication Card: Front

I am a Deaf Person



Communication Card for Law Enforcement Officers

This card will help you communicate.
Please point to the pictures on the other
side of this card.

When communicating with me:

- ⇒ Get my attention first.
- ⇒ Look at me when you speak.
- ⇒ For simple communication writing notes *MAY* help, but not always.
- ⇒ I cannot lip-read everything you say.
- ⇒ A hearing aid does not allow me to hear everything you say.
- ⇒ Avoid shining a flashlight in my face as this will hamper my ability to communicate.

If I am arrested or asked to come in for questioning I will need:

- ⇒ A Kentucky licensed sign language interpreter.
- ⇒ To make a phone call (high-speed internet connection and a computer, TTY and/or my wireless device).
- ⇒ Other accommodations.

To locate an interpreter in Kentucky



Call 800-372-2907

<http://finance.ky.gov/bidhh/>



This voluntary informational
program was developed by the Kentucky
Commission on the Deaf and Hard of
Hearing with the endorsement from
Kentucky State Police.

www.kcdhh.ky.gov

Figure 2.1

Visor Communication
Card: Back

I then discussed my project idea with an involved member of the Bowling Green, KY Deaf community. I asked if she knew about any other materials provided to allow for communication between Deaf individuals and emergency responders. Since she knew of no others, I explained I was interested in creating a project that shifted the responsibility of communication from Deaf individuals to emergency responders through creating ASL training materials for the fire department, police department, and Medical Center. She was very interested in the project and volunteered her assistance. She agreed to sign the words collected through the survey in an ASL training session for the emergency responders.

Finally, I began to look into each of the emergency response teams I was planning to work with to see if they had any ASL training in place for their employees, and if they did not, I needed their confirmation that they were willing to work with me regarding accepting/distributing training materials and participating in a training session. The Bowling Green, KY Police Department does not currently have any ASL training in place for their employees, although they do have training in basic Spanish for their emergency responders. They were very excited about the opportunity to better serve the community through free training in specific ASL signs. However, they requested that instead of/in addition to the training class, I make a training video so that every shift of policemen would be able to receive training. This sentiment was echoed by the Medical Center, which also does not currently have ASL training in place for its EMTs. The Fire Department also lacked any training in ASL for its employees/ volunteers; however, they do have an interpreter on call from Neighborhood and Community Services. For this reason, there was some confusion within the Fire Department as to whether or not ASL

training materials were needed. However, one representative of the department decided they would accept the training materials, though there was no guarantee they would be utilized. Henceforth, I obtained letters of cooperation from the Fire Department, Police Department, and Medical Center, none of which already had ASL training in place for their team members.

CHAPTER 3

METHODS

This project began with the development of a survey. The main purpose of the survey was to discover the ASL signs utilized by the Deaf population in Bowling Green, KY. However, I also wanted to discover how great the need is in this area for the education of emergency responders in ASL. Therefore, the survey also asks questions that target the interviewees' personal experiences with firefighters, police officers, and EMTs and whether or not these emergency responders knew any ASL (see figure 3.1). The survey was administered to 14 Deaf individuals. These interviewees were contacted via the social media website Facebook, e-mail, and/or in person. Only two individuals completed the survey on their own after receiving it through e-mail; the others completed it in-person, interview style.

The individual ASL signs gathered through the survey as being necessary for emergency responders to learn were placed in a list, and the frequency with which they were mentioned was recorded (see appendix). The Bowling Green Deaf community is relatively small (encompassing about 30 individuals), and those that were interviewed gave a fairly short list of ASL signs, so all signs were demonstrated in the training video. This is also true of all phrases that were recorded from the surveys. Since the necessity of fingerspelling was also mentioned multiple times, the ASL alphabet was also recorded.

However, only the individual signs mentioned multiple times were placed on the poster chart.

Figure 3.1

ASL Signs Gathered from Survey

1	ACTIVITIES
1	ALLERGIC
3	ALRIGHT
1	ANIMALS
1	ASPRIN
1	ARREST
1	AUNT
1	BABY
1	BACK PAIN
1	BAND AID
1	BOMB
1	BREATHE
1 (2 for BROKEN alone)	BROKEN BONE
1	BROTHER
1	BURN
1	CANT'S BREATHE
1	CAR
1	CHILDREN
1	CO2 TESTING
1	CONFUSED
1	COP
1	COUSIN
1	DAD
1	DEAF
1	DOCTOR CARD
1	DON'T KNOW
2	DRINK
3	DRIVER'S LICENSE
2	DRUGS
1	EMT
1	EVERYTHING

1	FAMILY CARD
6	FIRE
1	FIREFIGHTER
1	FREEZE
1	GIVE
2	GO
1	GRANDFATHER
1	GRANDMOTHER
1	HANDCUFFS
1	HAPPEN
1	HEARING
1	HEART ATTACK
1	HEART DEFIBRILATOR
2	HELP
1	HELP WHAT
1	HERE
1	HOSPITAL
3	HOUSE
2	HOW
1	HOW MANY
1	HOW MUCH
8	HURT
1	HUSBAND
1	ID
1	IN
1	INSURANCE CARD
3	INTERPRETER
1	KIDNAP
1	LAY
3	MEDICINE
1	MOM
4	NEED
1	NIECE
1	NEPHEW
1	NO
1	NOT
1	NOT MOVE
1	NOTHING
3	OUT
1	PEOPLE

1	PICTURE POINT
1	PLEASE
1	POISON
1	PROBLEM
2	SAFE
1	SHOT
1	SISTER
1	SIT
1	SMELL
1	SMOKE
1	SMOKE ALARM TEST
3	SPEED
1	START
2	STAY
1	STOP
1	STOP LIGHT
1	STOP SIGN
1	TAKE IT EASY/RELAX
1	TICKET
1	TORNADO
1	UNCLE
1	WAIT
2	WHAT
1	WHEN
7	WHERE
1	WIFE
2	WRONG
2	YES

After obtaining confirmation from Beth Driver, an active member of the Bowling Green Deaf community, that she was willing to participate in the filming of these ASL signs, I reserved recording equipment from Western Kentucky University's Technology Resource Center. The filming took place in Driver's office at the First Baptist Church. I

also utilized the video camera to take still shots of Driver forming the ASL signs. This process took two hours.

I utilized the Technology Resource Center (TRC) to create the final products of the training video, poster chart (see appendix), and brochures (see appendix). The video was edited (visual cut, audio cut, titles added) utilizing Premiere Pro. The staff at the TRC were vital in teaching me how to utilize this software. One staff member even assisted me in the interpreting/transcription of Driver's video introduction. I interpreted the introduction orally, which the staff member then typed into Microsoft Word. This, as well as a written version of my introduction and titles for each sign visually demonstrated, was then placed into the video in the form of a subtitle. I also learned how to use Photoshop Extended to edit the pictures to be used in the poster chart and brochures. Only the ASL signs I recorded as repeated signs were placed on these materials (the posters and brochures) due to limited space (narrowing 99 signs down to 28). I was able to layer the multiple stills of each ASL sign to illustrate the movement utilized to create the signs. Arrows were also put in place to make the direction of movement of the ASL signs more clear. Finally, I created the poster chart utilizing gridding in Photoshop Extended. The brochures were put together in Windows Publisher with a template and scaling system. They included not only the pictures of ASL signs, but also a list of communication tips as mentioned by Deaf individuals during the interviewing process. The poster chart was sent to Western Kentucky University's Students in Free Enterprise (SIFE) Print Center to be printed while the brochures were

printed by FedEx Office due to better rates and availability. The DVD was burned in the TRC via Encore DVD. These processes took over 30 hours to complete. I then delivered the materials to the appropriate departments.

CHAPTER 4

BUDGET

Items	Amount
(5) DVDs	\$10
(35) Brochures	\$ 25
(4) Poster Charts	\$120

Honors Development Grant: \$75

Out of Pocket: \$80

Total: \$155

CHAPTER 5

EQUIPMENT

Hardware	Software	Source
Dell Precision Workstation Computer		WKU Technology Resource Center
DVD Disks		Walmart
	Encore DVD—Adobe Master Collection CS5	WKU Technology Resource Center
	Photoshop Extended – Adobe Master Collection CS5	WKU Technology Resource Center
	Premiere Pro—Adobe Master Collection CS5	WKU Technology Resource Center
	Publisher—Microsoft Office 2010	WKU Technology Resource Center
Sony Video Camera		WKU Technology Resource Center
Tripod		WKU Technology Resource Center

CHAPTER 6

CHALLENGES AND SOLUTIONS

Initiating contact and scheduling interview times with individuals in the Deaf community was the most challenging aspect of this project. As an ASL student, attendee of a church with an ASL interpreted service, and previous member of the Western Kentucky University American Sign Language Organization, I already had several connections within the Deaf community. Based upon the number of Deaf individuals I had personally met and those I knew about through other individuals, I estimated there were about 15 Deaf adults in the Bowling Green area. However, to ensure that all eligible (designated by the Institutional Review Board as over the age of 18 and neither pregnant nor incarcerated) Deaf individuals had the opportunity to participate in the survey and direct the path of their own emergency care. I asked a very active member of the Bowling Green Deaf community for the names of the individuals I should contact. Although she agreed to send me an e-mail with a list of contacts, I never received such a list, despite multiple requests.

Therefore, I began building my list of Deaf individuals to contact through the Regional Resource Center for the Deaf and Hard of Hearing (RRCDHH) group on the social media website Facebook. Although other ASL students like myself are members of this page, I was able to contact six individuals I knew were Deaf through this website and arrange interviews with three of them. One individual did not respond to my initial

question of whether or not s/he was interested in participating, one asked for the survey to be e-mailed to him/her but never completed it, and the other decided not to participate due in part to lack of experience with emergency responders and the conviction that s/he did not have much to share on the topic. I was also able to ask Deaf professors (three this semester) to participate in the survey. Finally, I regularly attend Deaf Culture Events in Bowling Green and was able to interview eight Deaf individuals though meeting them at these venues (unfortunately, there were two additional people who wanted to participate, but one was leaving the state and the other was unable to meet with me due to transportation issues). This resulted in a total of fourteen interviews/surveys being completed—a number very close to my original estimate of fifteen possible participants.

Although I created a standard survey and sent it via e-mail to several Deaf individuals, it was most effective to ask the survey questions in person. This resulted in interviews during which I was better able to clarify my questions. Asking the questions in interview style better ensured comprehension on the part of the interviewee. They were freely able to ask questions, and I was able to not only answer, but to ask them more probing questions and give scenarios if the problem was the vague nature of my questions (created as such to avoid leading the individual to answer with certain signs). However, I was conducting the interviews in my second language, allowing for error on the part of my comprehension. I did have to ask the interviewees to repeat themselves on several occasions to make sure I understood them correctly. I would also intermittently repeat the signs back to them to ensure my comprehension, and some individuals would review the responses I was writing down to confirm I was recording their true response. Still, there is the possibility of some error due to incorrect language reception.

When designing this project in general and the survey specifically, I was operating under my background knowledge of language learning within the classroom. When learning a second language, there is a clear focus placed on vocabulary. In both my collegiate ASL courses and introductory French course, this vocabulary was often given in list format. A new word would be introduced, the class would repeat it back, and then a pronunciation/HOLM correction may or may not be given. Because this had been my experience with language learning, I planned my project with this format in mind. The training video was intended to introduce each sign three times, allowing the trainee the opportunity to observe the sign, mimic the sign, perform self-correction, and then create the sign again. The survey was also created with this format in mind. However, with the first interview it became very clear that I had made a poor assumption in expecting the interviewees to automatically list off words/signs singularly.

Instead of instantly giving me a list of relevant signs when asked which ones emergency responders should know, the most common first responses were “ALL SIGNS” or “BASIC ASL.” With the first few interviews, I would confirm that I understood their reasoning, and then ask for signs that could be taught in a short training program. Several individuals still insisted that all emergency responders must attend ASL classes. I eventually discovered that asking which *specific* signs should policemen, firefighters, and EMTs know led some interviewees to list off individual words and phrases. Although I would explain the project’s end goal to each potential interviewee before asking them to participate, I also found it helpful to remind them at this point why I was asking these questions and to go into more detail regarding how the training video was going to be made (i.e. ‘Why am I asking all these questions? B.D. is going to help

make a training video for the firefighters, policemen, and EMTs, but she needs to know which signs to teach them. The signs you give me are the ones B.D. will teach them.’).

One of the more interesting patterns I began to notice during the interviews was the tendency for individuals with little or no experience with emergency response teams to be less willing to list off signs. These interviewees were very hesitant to mention any individual signs and repeatedly told me that they had never been in contact with the group we were discussing (i.e. ‘YOU KNOW SPECIFIC SIGNS COPS MUST LEARN?’ ‘HARD. NEVER EXPERIENCE THAT. NO EXPERIENCE BEFORE.’).

The people who had history with emergency responders (whether they themselves were in an emergency situation or knew responders as personal friends and/or family members) gave me significantly more signs. This may have been because they were able to recall signs that would have been appropriate for their encounter or knew more about the details of a policeman’s, firefighter’s, and/or EMTs job. Additionally, at least one interviewee thought of appropriate words for other *possible* scenarios (as he overtly told me when saying he was trying to think like a cop/ firefighter/ EMT and what they would need to say).

It is very important to note that the number of signs and readiness with which they were given to me for emergency responders to learn does not reflect upon the interviewees’ intelligence, creativity, or any other mental capacity. To my knowledge, all Deaf participants had at least an average Intelligence Quotient. Although several individuals told me they could not think of relevant signs because they had not experienced contact with emergency responders before, this does not mean that they were lacking in creativity or mentally confined to only concrete experiences. It is also possible

that uncertainty of what I was asking and insecurity concerning their answers was the root issue. It could also be postulated that instead of having no idea of which signs would be necessary in an emergency situation, the interviewees saw all signs as necessary, thus they did not know where to start with listing them. This explanation is much more probable than one that cites inability to mentally construct emergency scenarios when one notes the popular first response that emergency responders should learn all signs. After all, if I were in a foreign country, I would rather talk with an emergency responder who spoke English fluently than one who only knew a limited list of words that may not even address my issue.

Obtaining specific words for firefighters, policemen, and EMTs to learn was not the only challenge, as the novel idea of emergency responders signing at all was a slight issue. A few people interviewed responded to ‘What signs should police officers/ firefighters/ EMTs know?’ by saying they should have paper and pen (to facilitate written communication) or a card with pictures to point at. These are currently the two most common forms of communication between the Deaf party and emergency responders. There was actually one Deaf individual who told me firefighters did not need to learn any signs at all, which was the response that most surprised me. This was in stark contrast to the answer that emergency responders all need to learn ASL. However, both responses could be related in that if emergency responders cannot take courses in ASL, then they might as well just wait for an interpreter to arrive to assure clear communication (though this time spent waiting could be detrimental in an emergency situation). When creating the survey, I had not realized I was going to be introducing a new concept- that of emergency responders knowing specific ASL signs and/or even signing at all.

In regards to filming the training video, this process went fairly smoothly. However, the purpose of the video and what exactly the volunteer was being asked to sign had to be reiterated several times. Again, because ASL is my second language, I am not always able to clearly communicate my ideas, requiring me to share my thoughts several times in different formats. In one particular instance, the goal of the video (to illustrate essential ASL signs to emergency responders so that they could learn these signs), was adequately conveyed and then understood by the volunteer. The volunteer had the final list of collected essential signs on a stand in front of her as she stood ready for me to give her the 'READY' sign to indicate I had begun filming. However, when I started the camera, she asked me what exactly she was supposed to be signing—I had obviously not given a very good description of the three sections (fingerspelling, individual essential signs, and short phrases) that I planned to be on the video *and* how/ in what order I intended them to be filmed. The challenge of communication always takes patience on the part of both parties as clarifying questions must be asked and different ways to give the same response must be created.

There were also some discrepancies in the signs that were created for the video verses those that were mentioned in the video which were only noticed during the editing process. One of the most noticeable incongruities was the demonstration of "BREATH ALCOHOL TEST" verses "CO2 TEST," the latter of which was the sign actually listed as necessary by a member of the Deaf community. The video demonstration of the wrong sign was entirely my error. However, time constraints and the mere one-time mention of the sign "CO2 TEST" during the interview process resulted in the exclusion of the mentioned sign in the training video. Nonetheless, "BREATH ALCOHOL TEST" was

kept in the video due to its connection to the sign “DRINK” listed multiple times in the context of alcohol.

There were also a few signs that were represented in the video differently than they were originally signed to me in interviews—just as there are multiple English words to represent the same concept, there are multiple signs to illustrate the same idea. However, this was not of great concern due to the conveyance of the appropriate meaning regardless of which ASL sign was chosen to represent it. Driver is also a very integrated and well respected member of the Deaf community, which lends itself towards acceptance of the signs she utilized in the video if viewed by members of the Deaf community.

The most unfortunate incongruity was that of the complete absence of the sign “HOW” from both the posters and brochures. I recorded this sign as having been mentioned by two individuals. However, I noticed after the posters were printed that it was not included among the pictures. I resolved to add it to the brochures, but when I went to look for the original, unedited shots to stack them, there were no photographs of this sign in any files. They had either been deleted some time during the editing process, or had never been captured at all. Due to time constraints and a limited budget preventing additional printing charges, “HOW” remained excluded from the posters and brochures.

A final challenge with the video was whether the titles for the phrase section of the training video should be written in English or ASL gloss. ASL gloss would correctly denote what was literally being demonstrated. This would then possibly be helpful for emergency responders to best learn the phrases. However, if the phrases were written in ASL gloss, the responders may not comprehend the idea being shared. If this were the

case, the phrases would not be learned or remembered. This led to the final decision of writing titles for the phrases chapter in English.

CHAPTER 7

FUTURE IMPACT

The goal of this project was to improve communication between Deaf individuals and the Bowling Green, KY Police Department, Fire Department, and EMTs. The materials created to help reach this goal are reproducible. Thus, if the posters and brochures are deemed helpful, the emergency response departments are able to access the originals and print more. This would allow the Medical Center, for example, to place a poster chart in each ambulance. Copies of the DVD can also be made for ease of training and/or distribution to other emergency response departments.

Although the Police Department requested a training video to meet their needs regarding timing of training, they are also very interested in face-to-face training sessions. They even hope to host a workshop in emergency ASL that is open to the public. A Deaf gentleman who participated in the interview process is very excited about the opportunity to act as the instructor in said training sessions. Therefore, I will continue to be in communication with the Bowling Green Police Department and the volunteer in an unofficial capacity to assist them in planning these training sessions/workshops.

CHAPTER 8

REFLECTION

There are a couple essential alterations I would make to this project were I to do it over again. Instead of only surveying the Deaf community and discovering which ASL signs they consider essential, I would interview at least the fire chief, police chief, and head EMT to discover what words and/or phrases they commonly use in emergency situations. This would make-up for the gap in information from the Deaf community due to lack of experience with emergency responders. I would then include an additional chapter in the training video for the demonstration of emergency requested ASL signs.

I also would include a video segment that discusses some aspects of Deaf culture. When interviewing Deaf individuals to discover which ASL signs emergency responders should learn, they gave me additional information they believe emergency responders should learn or put in action. They want responders to be aware of the environment and if it is conducive to signing (i.e. flashing siren lights make it difficult to read ASL signs). Signed information should be concise and clear and include the appropriate facial expressions. Gestures were mentioned a couple of times as a good source of communication, but emergency responders should know that Deaf individuals need and have the right to an interpreter. It is important for responders to not expect Deaf individuals to be able to read lips. Pen and paper should be kept with an emergency responder to assist with the facilitation of communication. There was also repeated

discussion about the issue of using handcuffs. Handcuffing a Deaf, signing individual behind his/her back prevents communication. Many Deaf individuals understood the necessity for this required practice, but expressed that signing individuals should be released from handcuffs as soon as possible. These points among others would be introduced to emergency responders through an additional chapter in the training video. As it is, many of these tips are present on the training brochures and can be presented during the in-person training session in a discussion format.

This project would also be enhanced by the addition of training for Deaf individuals. A couple of Deaf individuals mentioned that members of the Deaf community need to be better prepared for emergency situations and how to respond to them. This is especially true of encounters with police officers that involve hand-cuffing. It was mentioned that Deaf individuals should be trained for such scenarios so that they don't panic when they are hand-cuffed (since this prohibits them from communicating).

All-in-all, I consider this project to be successful in terms of informing emergency responders in Bowling Green, KY which ASL signs the Deaf community wants them to learn. Unfortunately, I am unable to guarantee the use and effectiveness of the training materials. It would be interesting to survey the Deaf community and emergency responders in five years to inquire as to whether or not they have had contact with each other and if the training was utilized. I would like to discover whether or not this project had a positive impact on communication and subsequently emergency services provided to Deaf individuals.

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APPENDIX

**Survey of Deaf Experiences and Preferences
Regarding ASL and Emergency Responders**

Name: _____

Date: _____

Age: _____

Gender: _____

Resident of: _____

Have you ever been in contact with any Police Department?

Did the officers know any signs?

What was your overall experience?

What signs should police know to better meet your needs as a Deaf individual?

Have you ever been in contact with any Fire Department?

Did the firefighters know any signs?

What was your overall experience?

What signs should firefighters know to better meet your needs as a Deaf individual?

Have you ever been in contact with any Emergency Medical Technicians (EMTs)?

Did the EMTs know any signs?

What was your overall experience?

What signs should EMTs know to better meet your needs as a Deaf individual?

Poster Chart

ASL Emergency Signs

Photographed: Beth Driver
Edited: Noelle Anderson

