by

Kenneth J. DeHaan

Bachelor of Science, Rochester Institute of Technology, 2009

Master of Science, Rochester Institute of Technology, 2011

Master of Arts, Gallaudet University, 2015

Submitted to the Graduate Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education

University of Pittsburgh

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

This dissertation was presented

by

Kenneth J. DeHaan

It was defended on

July 2, 2020

and approved by

Dr. Raychelle Harris, Full Professor, Gallaudet University

Dr. Heather Hendry Annegan, Assistant Professor, School of Education

Dissertation Advisor: Dr. Linda DeAngelo, Associate Professor, School of Education

Copyright © by Kenneth J. DeHaan 2020

Ph.D. in Sign Language Education at Gallaudet University: A Viability Study

Kenneth J. DeHaan, Ed.D.

University of Pittsburgh, 2020

Gallaudet University is proposed to be the home to the world's first Ph.D. in Sign Language Education program situated in the emerging discipline of sign language pedagogy. There is a need for qualified sign language instructors and leaders at all levels of education. Gallaudet University's New Program Review requires a proposal to pass through series of stages. This study focused on the viability component of the overall feasibility study in Stage 2. The purpose of the study is to analyze the viability of the proposal by looking into the value, need and interest for the proposed program. The main research questions that guided this study are: "do current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education program at Gallaudet University?" and "are current and past graduates of a sign language master degree program interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University?". A quantitative approach utilizing the survey methodology was developed and administered to 280 prospective students. The survey collected data from 114 participants who completed the survey in its entirety. The sample group consisted of 24 current graduates and 90 past graduates of the Master in Sign Language Education program.

This study is important in terms of setting the stage for elevating the long-awaited discipline of sign language pedagogy in line with other world language disciplines. A major finding revealed by this study has shown that current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education. An overwhelming majority of the respondents indicated that such program should be implemented at

Gallaudet University. Overall the prospective students are interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University, especially within 10 years.

Table of Contents

Dedicationix
Acknowledgementsx
1.0 Introduction to the Problem of Practice 1
1.1 The Need for ASL Faculty and Administrators 3
1.2 Site 8
1.3 Inquiry Background9
1.4 Inquiry11
2.0 Literature Review 13
2.1 An Interest
2.2 A Need
2.3 Career Prospects
2.4 Theoretical Framework
3.0 Methodology
3.1 Research Questions25
3.2 Approach & Methodology
3.3 Sample Group
3.4 Survey Methodology31
3.5 Data Collection
3.6 Data Analysis
3.6.1 Demographics
3.6.2 Group One

3.6.3 Group Two	37
3.7 Researcher's Reflexivity	38
3.8 Researcher's Epistemology	39
3.9 Limitations of the Method/Approach	40
4.0 Research Results	42
4.1 A Value & Need	42
4.2 An Interest	50
5.0 Summary	57
5.1 Discussion of the Findings	57
5.2 A Professional Need	58
5.3 The Value of a Ph.D. in Sign Language Education	59
5.4 Areas of Interest	60
5.5 Implications for Gallaudet University	61
5.6 Future Research	65
5.7 Conclusion	67
Appendix A Letter of Support to Gallaudet President	69
Appendix B Ph.D. in Sign Language Education Viability Survey Protocol	74
Appendix C Email Introductory Script	79
Ribliography	80

List of Tables

Table 1 Demographic Makeup
Table 2 Relationship Between Inquiry Questions & Survey Items
Table 3 A value and professional need by current and past graduates of the sign language
master degree program for a Ph.D. in Sign Language Education program at Gallaudet
University (n=114)
Table 4 A value and need for a Ph.D. in Sign Language Education among current and past
graduates46
Table 5 Is there a need for a Ph.D. in Sign Language Education (n=114)49
Table 6 Current and past graduates of a sign language master degree program interest in
pursuing a Ph.D. in Sign Language Education at Gallaudet University (n=114)51
Table 7 Current and past graduates of a sign language master degree program interest in
pursuing a Ph.D. in Sign Language Education at Gallaudet University (n=97) 52
Table 8 An interest for a Ph.D. among current and past graduates54
Table 9 An interest for a Ph.D. among current and past graduates 55
Table 10 Interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University
at any point (n=114)56

Dedication

To the people of the eye*. The future is at *hand*.

* I would like to bring your attention to this line, and recognize the discussion that this excludes the DeafBlind community. My intention in the use of this quote is to denote the historical reference made by Mr. George Veditz in 1913. This quote is made in the context of an ongoing, centuries old, invisible war to protect and preserve sign languages against its oppressors. As well as the blatant audism against the overarching Deaf community, including the DeafBlind.

Acknowledgements

The work before you here is not the product of a solo journey, but the culmination of collaboration with the people in my life. All of them are intertwined into with this work. The tapestry of ideas that sprout to life are imparted by the collective wisdom instilled in me. This acknowledgement is reflective of the collectivist values by the Deaf community.

I would like to recognize my committee members, especially my advisor, for joining me on this journey and redirecting me on the path towards what is not the finish line, but the beginning.

I would like to thank the educators and scholars who watered me with their wisdom as they watched me grow throughout life. In the face of a far-reaching systemic oppression, as an instructor I will continue to do better - this is my burden. To pass this knowledge onto a new generation of change agent scholars - this is my duty. I will continue this important work.

I would like to express my gratitude to my family for letting me be me: deaf. It is because of your support, love and acceptance that I am where I belong. For that I am grateful. I love you.

I would like to express my love for Andrea. Thank you for your never-ending kindness, patience, support, understanding, and unbounded flow of love. While we were students for as long as we can remember, you immediately proclaimed after graduate school that you were content with schooling. Yet, in a way you still embarked on another academic journey by association! Thank you for seeing me through. **I love you**.

1.0 Introduction to the Problem of Practice

World language courses in higher education are seeing an increase in enrollment due to our world becoming more globalized and interconnected than ever. Politics, economics, cultures, and academics are no longer simply localized but play a vital role across borders with other countries. As a result, global citizens are increasingly becoming fluent in second and even third languages as world language learning is frequently incorporated into academic curriculums. The United States government recognized the need to promote cultural understanding and world language skills to maintain its presence on the world's stage. Consequently, multiple policies and initiatives were passed to support world language instruction across all levels of education. In 2006, the passing of the National Security Language Initiative, a multi-interagency partnership, marked the United States' large role in its commitment to support the expansion of world language education across all levels of education (Oldham & Spellings, 2008). Higher education in the United States recognized the paradigm shift and benefits of learning a second language. Higher education continues to expand and offer world language courses such as American Sign Language (ASL). Second language acquisition is on the rise in the United States.

The benefits are clear as the world increasingly becomes interconnected. The Modern Language Association (MLA; MLA, n.d.) reported that the benefits may include but are not limited to: improved test scores, life skills, college success, higher earnings, employability, a healthier brain, longevity, and sharper cognition. According to a report written by Goldberg, Looney and Lusin (2015) for the MLA, ASL displaced German to become the third most studied world language behind Spanish and French in higher education. Popular world language courses such as German, Chinese and Arabic trail behind. This upward trend of studying ASL is also occurring at

the primary and secondary level (K-12). While studies have shown a strong growth of ASL courses, a growing body of literature now suggests with this success also comes a challenge in hiring qualified candidates with advanced or terminal degrees in sign language pedagogy to fill faculty or leadership roles. Clary (2004), in his interview with principals and assistant superintendents from primary and secondary levels, have revealed that there are simply not enough qualified ASL instructors to keep up with the demand for ASL courses. This challenge is not limited to ASL, but applies to other world languages as well. O'Connell et al. (2007) report primary through post-secondary administrators were also struggling to hire qualified instructors in less-commonly-taught-languages (LCTL) and common world languages. Despite ASL's upward trajectory as the third most studied language, ASL is categorized as a LCTL by the MLA and sometimes placed under LCTL departments at higher education institutions. At the time of writing there are no Ph.D. programs in sign language pedagogy. Internationally there are only two graduate programs from two higher education institutions, both residing in the United States awarding degrees in sign language pedagogy.

As academia struggles to identify and hire qualified ASL instructors, Goldberg et al. (2015) study found that ASL has grown by 19% in a mere 4-year span from 2009 – 2013. By 2013 the ASL enrollment count for higher education was 109,577 (Goldberg et al., 2015). Though the MLA report focuses primarily on higher education, the upward trend is also true of primary and secondary level across the United States. The American Councils for International Education (ACIE; ACIE, 2017) has reported that in the United States there are 401,693 students in K-12 learning world languages, including ASL, as of 2014. With a strong growth of second language students, varying states across the United States are reporting significant teacher shortages in world languages (Cross, 2016). The demand for ASL continues to grow at all levels of education. The

disparity between the supply of qualified instructors and leaders, and the demand for ASL courses presents a challenge.

1.1 The Need for ASL Faculty and Administrators

If ASL instruction is to be carried on at the college and university level, if it is to be viewed as an academic subject, we need to pay close attention to our credentials and qualifications. The days are over when teachers of ASL could get by with little or no training.... There is a vast amount of linguistic and cultural information now available about ASL, which teachers must know. Moreover, college administrators are looking for credentials which attest to our training and skill as teachers of ASL. We must take responsibility for upgrading and bringing our standards in line with those of other teaching faculty. (Cogen, 1986, p. 186)

Dr. Lawrence Fleischer, a professor of Special Education at California State University, Northridge, was quoted above expressing a concern with the direction of the emerging discipline. Although sign languages have existed for centuries, and ASL has existed for over 200 years, sign languages are often seen as something equivalent to pantomime, gestures, or a broken language (Slegers, 2010). The recent emerging status of sign language pedagogy may be attributed to the fact that ASL was only proven as a true natural language in 1960. William C. Stokoe, Jr. published a book titled Sign Language Structure: An Outline of the Visual Communication Systems of the American Deaf, which outlined how sign languages, just like spoken languages, have the same basic structures that can be linguistically analyzed (Stokoe, 2005). Stokoe's discovery was

recognized as a major event in the paradigm shift towards recognizing sign languages around the world as languages. Sign languages slowly became accepted as bona fide languages by the linguistics community in the mid-1970s (Stokoe, 2005). Even though the MLA started collecting data on language enrollments in higher education available to the public dating as far back as 1958, it was not until 1990 that the association started collecting data on ASL. Unwarranted prejudice and discrimination towards sign languages is so deeply engrained into society that it has become normalized.

Today ASL has a heavy presence in the United States and Canada. The use of ASL is growing at a rapid pace and ASL can be seen throughout multiple media outlets and social media platforms. The U.S. Bureau of Labor Statistics (2018) has projected that the need for foreign language and literature instructors in higher education, which includes ASL, will rise by 12% between 2016 and 2026. The American Sign Language Teachers Association (ASLTA) is the only professional association of its kind for sign language instructors. The association numbers its members at just over 1,000. It is important to note that this membership count consists of members from all levels of education with differing backgrounds such as deaf education and interpreting, which is an entirely different field of study from sign language pedagogy. The glaring disparity between 109,577 higher education ASL students as of 2013, and approximately 1,000 ASLTA members represents a disconnect between the supply and the demand.

Higher education institutions are hiring candidates in different disciplines, disciplines that depart from sign language pedagogy, in order to fulfill faculty and leadership roles. Cooper's (1997) study of 301 higher education institutions revealed there are no administrators (inclusive of provosts, deans, chairs, coordinators, faculty, instructors and staff) responsible for administering

sign language classes and ASL programs who have a sign language pedagogy background assuming leadership roles:

Administrators' undergraduate majors were distributed among health or science (18.7%), education (15.2%), counseling and psychology (11.7%), deafness-specific majors such as deaf education or interpreting (10.9%), liberal arts (9.3%), and other majors (34.2%). At the graduate level, the percentage of deafness-specific majors more than doubled (28.2%), compared to the distribution of other majors (education, 20.4%; health or science, 18.5%; counseling or psychology, 12.5%; liberal arts, 2.3%; and other, 18.1%). For those administrators holding doctoral degrees (n=100), the most strongly represented area was education (25%), followed by health or science (16%), deafness-specific majors (14%), counseling or psychology (12%), and liberal arts (4%). The remaining 29% held doctoral degrees in other areas. (p. 96)

Cooper (1997) found that the largest administrative concern, reported by 62.4% of the administrators, was the ability to hire qualified faculty:

The academic qualifications of 921 sign language instructors were compared. Approximately one fifth (20.6%, n=190) held a high school or associate's degree as their highest degree. Of these, 73% were teaching in two-year institutions and 27% were teaching in four-year or graduate institutions. A bachelor's degree was the highest degree for 305 (33.1%) of the instructors. Of these, 64% were teaching in two-year institutions and 36% in four-year or graduate institutions. Two fifths (40.3%) of the instructors (371 instructors) held a master's degree as their highest degree and these were evenly distributed between the two- and four-year institutions. 6% (55 instructors) held a doctorate as their highest degree. (p. 104)

Within this group of 230 full-time and 725 part-time instructors, 38% of full-time and 47.5% of part-time faculty identified as deaf in Cooper's (1997) study. In a similar national study on secondary-level instructors' credentials, Rosen (2008) discovered that the majority of the instructors surveyed possessed a degree in either deafness- or disability- related fields, and only a few possessed a degree in sign language pedagogy. The study further revealed none of the instructors surveyed possessed a doctorate degree (Rosen, 2008):

Nationally, just over a third of teachers of ASL in public high schools earned as their highest degree a bachelor's degree such as a Bachelor of Arts or Bachelor of Science; half the teachers earned a master's degree, such as a Master of Arts, Master of Science, or Master of Education. About a tenth of the teachers did not possess a collegiate degree. (Table 7)

The lack of qualified instructors has forced multiple schools to close or suspend their ASL programs (Rosen, 2008). As a result, Rosen (2008) states that there is a great continuing need for higher education institutions to establish teacher preparation programs to prepare individuals in sign language pedagogy. In the same tone, Cooper (1997) concluded her study with the following recommendation for action, "[t]he administrative problem of lack of qualified instructors could have serious ramifications for the future of the sign language programs. Master and doctoral-level programs in teaching sign language are needed to provide appropriate credentials and standardized entry level requirements for post-secondary sign language instructors" (p. 165). The lack of Deaf graduates with the appropriate discipline to assume faculty and leadership roles at all levels of education is problematic.

Apart from the two sign language pedagogy programs available, there are many programs that offer the study of ASL, such as Interpreting, which is an entirely different field often

misconstrued to qualify a candidate for ASL faculty or leadership positions (Harris & Thibodeau, 2016). This problem is apparent with part-time instructors. "...[P]ost-secondary environments allow the employment of adjunct or ad-hoc lecturers, which allow for hiring of individuals without necessity of teacher training or certification" (Rowley, 2014, p. 23). Consequently, individuals with varying backgrounds, experiences and qualifications often hold faculty and leadership roles. For clarification, ASL/English Interpreting (ASLEI) is a field distinct from sign language pedagogy. An ASLEI program trains students to become language interpreters--facilitators of cultures and two distinct languages, ASL and English. Sign language pedagogy, on the contrary, is a specialized field that prepares students for faculty or leadership roles within the field of sign languages. Sign language pedagogy programs trains students in theoretical and methodical topics. This knowledge is applied towards ASL instruction, curriculum, and assessment. Graduates will possess the necessary knowledge to teach a language in numerous of settings at all levels of education to L1 and L2 learners.

This brings us back to the quote introduced in this section. Dr. Lawrence Fleischer, among many others, has long advocated for upgrading and bringing our standards in line with those of other teaching faculty, and a Ph.D. program producing scholarly work and qualified instructors is needed in order to accomplish this. Today the discipline of sign language pedagogy is still very much in its infancy (Quinto-Pozos, 2011; Rosen, 2010; Rudser, 1998). This study is needed to support the growth of the emerging discipline. With the ever-growing 200+ ASL programs at all sectors of education across the United States, hiring qualified candidates to assume faculty or leadership roles is a challenge. The lack of graduate and terminal sign language pedagogy programs to prepare graduates for these roles is a problem.

1.2 Site

Gallaudet University, in Washington D.C., is the world's first and only university committed to bilingual education for the Deaf. Gallaudet University grants more than 50 degrees with ASL, Deaf Studies, Linguistics, Education, Educational Neuroscience and Interpretation at its core. The University serves 1,500+ students and has produced 21,000+ alumni since its founding in 1864.

The following numerical data are provided by Gallaudet University's Fast Facts (2019a). The student body is dominantly female (56%). The unique student body consists of 8% international students and up to a regulated 8% of hearing students per cohort. Approximately 86% of the student body resides in university owned residences. In the classroom, the student to faculty ratio is 7 to 1. This gives the students a unique learning experience and direct interaction with the faculty and staff on campus. Of the 934 employees on campus, 499 are Deaf.

Gallaudet University is home to the first of the two master degree programs in sign language pedagogy. The second Master in Teaching American Sign Language program is housed within the College of Education and Behavioral Sciences in the Department of American Sign Language and Interpreter Studies at the University of Northern Colorado. Gallaudet University's Master in Sign Language Education (MA-SLED) is housed in the Department of ASL & Deaf Studies in the College of Arts and Science. The MA-SLED program has been running at its maximum capacity of approximately 35 students per cohort since 2013 (Gallaudet University, 2016). Admissions screens well over 100 applicants per year. As a result, Gallaudet University (2016) has reported MA-SLED as the one of the largest graduate program since its inception in 2011. Students in this program are exposed to 17 distinct courses in theoretical and methodical topics related to ASL in conjunction to instruction, curriculum, and assessment. Graduates of the

MA-SLED program will be prepared with the necessary skills and knowledge in sign language pedagogy to fill faculty and leadership roles.

1.3 Inquiry Background

However, Gallaudet University has recognized the growing problem around the need for graduates with a terminal degree in sign language pedagogy to assume faculty and leadership roles. To test the waters, an internal survey was distributed to the graduates of the then-recentlyestablished MA-SLED program. The survey was completed by approximately 60 graduates of the Master in Sign Language Education program. Ninety-two percent indicated they would return to Gallaudet University for a terminal degree (MA-SLED Program Survey, 2013). This sparked interest in and the debate over a Ph.D. in sign language pedagogy. Given the university's unique position and ability to address the problem, a proposal for a Ph.D. program was first proposed in 2013. The timing of the proposal aligned with Gallaudet's commitment to emerge as a research university, and coincided with its ability to support the new Ph.D. program if implemented. Gallaudet University is internationally recognized as a bastion of expertise and a leader in sign language education with advanced and terminal degrees. Many graduates have gone on to hold esteemed positions around the world. According to the U.S. News (2019), Gallaudet ranks #20 according to indicators of excellence for regional universities in the North, #11 as an innovative institution, and #1 in providing the best value. While the proposal asserted that Gallaudet University was in a prime position to launch a Ph.D. program in the study of sign language pedagogy with world-class ASL professors, resources and research, the proposal was tabled at the time.

Since then, Gallaudet University's commitment to emerge as a recognizable leader in research materialized. The university was designated a Research 2 Doctoral University classification in December 2018 by the Carnegie Classification of Institutions of Higher Education. In 2019 the proposal was revived with the support of the Department of ASL & Deaf Studies. In the same year, a letter of support (Appendix A) with the signature of 57 MA-SLED graduate students expressing interest and support for the proposal was sent to President Roberta "Bobbi" Cordano of Gallaudet University.

While the problem of a dearth of ASL faculty and leaders remains, the question the university is confronted with is: is the proposal viable? In order for the proposal to be implemented, it must pass through a series of stages. Gallaudet University requires program proposals to adhere to the New Program Review (NPR) guidelines. The NPR process is designed to assess the potential benefits of a program proposal and its alignment with the university's mission and strategic plan (Gallaudet, 2019b). The process consists of three stages. The NPR begins with Stage 1: Preliminary Proposal Review. Stage 1 collects goals, rationale and background information on the program. The NPR Committee is charged with the review of the proposal. If approved, the proposal then moves to Stage 2: Feasibility Study Proposal Review. Stage 2 is concerned with multiple areas the proposal must inform, such as a viability study. If the NPR Committee deems the proposal to be feasible, the proposal reaches the final stage. In Stage 3: Governance Review of Full Formal Proposal Development, the full formal proposal is reviewed by the Provost, Faculty Curriculum Councils, and Faculty Senate Review before the Board of Trustee vote of approval for implementation. This study explored the viability of the proposal for a Ph.D. in Sign Language Education program implementation at Gallaudet University.

1.4 Inquiry

This study was a component of Stage 2: A Feasibility Study Proposal Review, interested in the viability of the proposal. The purpose of this study was to learn if the proposal was viable and informed a component of the feasibility study. The NPR guideline defined viability as evidence of "demand". Evidence of demand was demonstrated through the need for the proposed program, and interest from prospective students. This study explored both areas concerning the need and interest for the proposed program. To learn what the study sought, the following inquiry questions were developed to guide the study.

- 1. Do current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education program at Gallaudet University?
 - a) How does value and a professional need for a Ph.D. program vary among current and past graduates?
 - b) What percentage of the sample surveyed expressed a need for a Ph.D. program?
- 2. Are current and past graduates of a sign language master degree program interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University?
 - a) How does interest for a Ph.D. vary among current and past graduates?
 - b) What percentage of the sample surveyed expressed interest in pursuing a Ph.D.?

A quantitative approach utilizing the survey methodology to inform the inquiry was chosen for its ability to collect the data this study sought. The identified sample group, prospective students, are central to this study. The prospective students were divided into three demographic groups: academic status, hearing status and age group. The results collected from the survey produced important quantifiable data which was analyzed. This allowed the study to demonstrate areas of need and interest in Chapter 4. The viability of the proposal was depicted with in-depth

descriptive analysis on the need and interest for the proposed program supported by frequency tables and cross-tabulations as explained in Chapter 3.

2.0 Literature Review

The following chapter explores the literature on the interest and need for terminal degrees in humanities or language, and the job prospects. Literature on ASL in this area and topic is sparse. The literature on the discipline of humanities and language was chosen for its field of study. Its relevancy and parallels to the emerging ASL discipline as a part of the humanities spectrum will help inform this chapter. Within this context the literature will inform the study's findings, providing insight to the results. This review will outline the findings on prospective students' interests and needs in advancing their education, as well as the job prospects and the population's expectations regarding the job prospects. Finally, a theoretical framework informed by the literature is developed to guide this study.

2.1 An Interest

Every year thousands of students walk across the stage to receive their master's degree. During the academic year 2016 – 2017 in the United States, 804,684 master students rejoiced in celebration as they threw their caps into the air (U.S. Department of Education, National Center for Education Statistics [DOE], 2018). An interest in an academic career may prompt an individual to seek a terminal degree for the necessary knowledge and specialization needed to gain employment in their area of interest. But what prompts this interest? The pursuit of a humanities Ph.D. often revolves around an individual's intrinsic interest in researching and teaching a subject (Jones, 2003; Skatova & Ferguson, 2014). Bodner-Johnson and Martin (1999) survey of 56 Deaf

Education teacher educator faculty revealed that their decision to enter higher education was primarily "an interest in pursuing research activities and an academic, scholarly life" and a desire to "[have] a greater influence on more deaf and hard of hearing children and deaf education programs generally." Interestingly, Skatova and Ferguson's (2014) research suggests that "loafing" is another significant factor in a prospective and current student's interest to pursue a humanities degree. Loafing is defined as how easy it would be to get into higher education and to complete the degree. However, Skatova and Ferguson (2014) point out that while loafing may be a high characteristic among humanities students, the choice for a humanities degree is also highly driven by interest in the field with a low concern for their future career. Often the individual's identified area of study and socialization during their early formal education is a predisposition of their interest to pursue a Ph.D. in the same area of study.

A student's early studies may be an indicator of their future interest. A study by the National Center for Science and Engineering Statistics (NCSES) of the National Science Foundation (NSF) has shown a high correlation of a student's continued field of study between their master and doctorate education. NSF (2018) revealed 62.5% of humanities doctorate recipients also earned a master's degree in the same field (Table 29). Humanities, only second to engineering by 0.03%, contains the highest number of continued studies in a related field throughout one's education (NSF, 2018). The student's institution may also further nurture their interest in their field of study. Wright's (2018) study of external influences on a student's major decision-making process identified that parents, in addition to advisors, professors and collegiate peers, were a large influence in shaping a student's plans. Okahana and Kinoshita (2018) performed a study to understand how well a Ph.D. in humanities prepared its graduates by surveying individuals who graduated with a Ph.D. in humanities at 3, 8 and 15 years after graduation. In this

study, Okahana and Kinoshita (2018) found that the majority of the Ph.Ds. in humanities who are employed in academia and elsewhere indicated that they would pursue a Ph.D. in humanities again if they had to start their doctorate studies over. The interest in a humanities degree is also tied to what one may reap from their education.

A student's decision to invest in their education and pursue their interest is often a result of a decision-making process regarding employment prospects. The statistically lower unemployment rate with significantly higher earnings for doctorates compared to other levels of education is seen as a tangible benefit (Jones, 2003; Ma, Pender, & Welch, 2016). The U.S. Bureau of Labor Statistics (BLS, 2019) revealed that in 2018 the unemployment rate stood at 1.6% and the median weekly earnings stood at \$1,825 for individuals with a doctoral degree. Comparing each level of educational attainment, individuals with doctoral degree rank the lowest in unemployment and the highest in weekly earnings. College degrees are seen as a requisite for social and career mobility (Carey, 2004). When looking into sectors of interest among the students, Jones (2003) used data from an NSF report to show that 85% of the participants who studied for a Ph.D. in foreign languages and literature stated their post-doctorate plan was to seek employment at an educational institution (Table 1). However, there are some indicators that point to a declining language job market. The MLA Job Information List (JIL) Report is often used as a barometer of the higher education language job market. This is often cited in the literature when reporting language career aspirations and opportunities. Scanning the 2016-2017 JIL Report, MLA (2017) has revealed that higher education jobs advertised are down for the fifth consecutive year with a 10.7% decrease in English jobs and 12% decrease in foreign language jobs since the 2015-2016 report. Is there a need for sign language faculty and leaders, and sign language pedagogy programs in the academe?

2.2 A Need

Lusin (2019) released a preliminary report on the JIL for 2017-2018 revealing advertised English jobs dropped a further 1.1% and foreign language jobs dropped a further 4.7% since the 2016-2017 report. Although ASL is categorized in the foreign language category, the same decline may not be said of ASL. Referencing the MLA JIL Report as an indicator of the ASL job market is problematic when considering the limitations of the method and data collected. The preliminary report cites that there were 770 positions in foreign languages posted (Lusin, 2019). An electronic search on the JIL postings in the MLA website on October 29, 2019 revealed only 2 ASL faculty job posts. However, there is a cost to be able to post a job on the JIL. The least expensive option for non-members of the MLA Academic Program Services to post a job on the JIL is \$625 as of October 29, 2019. An electronic search in the ASLTA website, the largest comprehensive free ASL job postings on the Internet, under Job Posting on October 29, 2019 was performed. Manually counting each job posting revealed a total of 63 ASL job postings. A manual review of the first 20 higher education related job postings revealed only 7, or 35%, of job posts, listed ASL teaching or pedagogy as one of the acceptable qualifications. However, all of the job posts reviewed indicated that at least an MA degree in "a related field" was also acceptable. Additionally, "many job vacancies for leadership positions [in education] are advertised in the American Annals of the Deaf, the Silent News, the NAD Broadcaster, and the Deaf Digest" (Andrews, 2003). A manual search on October 29, 2019 on the Internet further revealed more ASL job postings. As the language job market continues to shrink, it would appear the same may not be said for sign language jobs.

Apart from those who studied sign language, this may be concerning for students or recent graduates in the language job market, considering the U.S. produces a considerable number of

doctoral graduates in humanities with postgraduate definite commitments. Postgraduate definite commitment is defined as a doctorate recipient with an employment opportunity secured for the coming year. In 2017, 77.2% of humanities doctorate recipients have postgraduate definite commitments for employment in the academe (NSF, 2018, Table 46). Out of all the disciplines shown, humanities students hold the highest percentage of postgraduate definite commitment. However, when narrowing down the humanities to foreign languages and literature, the NSF (2018) shows that the percentage of doctorate recipients with postgraduate definite commitments decreased to 51% (Table 51). Of the 51% postgraduate definite commitments, 66% were in the academe (NSF, 2018). The latter shows a continued interest, and need for specialized advanced education for those interested in a job in the academe.

It would appear from the literature that there is a need for a terminal degree to gain the necessary knowledge and specialization to fulfill sign language faculty positions. Of the 5,290 humanities doctorate recipients that walked across the stage in 2017 (NSF, 2018, Table 11), only 624 were recipients of a doctorate in foreign languages and literature (NSF, 2018, Table 12). The field of study of the 624 doctorate recipients are in Arabic, Chinese, French, Germanic, Italian, Japanese, Latin American, Russian, Spanish and, foreign languages and literature, other (n=126) (NSF, 2018, Table 13). Senior Science Resources Analyst report author Jaquelina Falkenheim (personal communication, October 30, 2019) explained that for the Survey of Earned Doctorates (SED), ASL is coded to SED #769 which falls under "Other Language, Literature, and Linguistics." From this, it is unclear whether any of the 126 foreign languages and literature, other doctorate recipients held a degree in sign language. The DOE (2017) revealed an answer to this question with the latest statistics from 2015-2017 on degrees conferred, showing that 0 recipients were rewarded a doctorate in ASL. At the time of writing there are no Ph.D. programs in sign

language pedagogy. So, one may infer that of the 126 foreign languages and literature, other doctorate recipients, 0 recipients held a Ph.D. in sign language. With the increased demand for ASL instruction, there is a need for doctorate programs in the field of sign language pedagogy to cater to those interested in working in the academe.

With the shortage crisis of qualified sign language faculty, higher education is forced to hire unqualified faculty to teach ASL (Fox, 2010). LaSasso and Wilson's (2000) survey of the nation's Deaf Education teacher preparation programs' directors showed that 97% of the directors were not satisfied with the applicant pool in their search for a new faculty. The survey further revealed 86% of the participants felt that there is a shortage of qualified faculty (LaSasso & Wilson, 2000). Of the faculty that were hired for the teacher preparation programs, only 13% were deaf or hard-of-hearing (LaSasso & Wilson, 2000). "Doctoral-level leaders in deaf education are in short supply, especially those who are deaf and from multicultural backgrounds" (Andrews, 2003).

While Deaf Education teacher preparation programs are distinct from sign language pedagogy, at the core they are both essentially pedagogical programs. The qualified faculty crisis the Deaf Education teacher preparation program faces is reflective of the overarching crisis higher education faces with any Deaf-related fields such as sign language linguistics, Deaf studies, Deaf history, Deaf literature, and especially sign language pedagogy. This problem may be further exacerbated by the fact that almost half (44%) of current faculty participants are expected to retire within 10 years (LaSasso & Wilson, 2000). Positions may be opening up or available, but participants indicated that there is an urgent need for doctorate-level faculty and leaders to fill these positions (LaSasso & Wilson, 2000). Deaf and multicultural Deaf doctoral leaders "are in short supply" (Andrews, 2003). Andrews and Jordan (1993) also state that there is a need for

teacher preparation programs to train Deaf and minority Deaf people to increase Deaf teachers and leaders at all levels of education. The curricula and higher education institutions exist for a reason: they serve the social needs of society in all sectors (Lattuca & Stark, 2009). The need for qualified doctorate-level faculty and leaders bespeaks a more fundamental need for programs to train / produce these qualified doctorate-level faculty and leaders to serve the education and social needs of this particular sector.

2.3 Career Prospects

Varying interests translate into a need, a need for postsecondary programs to prepare prospective students interested in the academe with the appropriate education and specialized skillsets. Depending on the field, one typically needs a doctorate degree to be able to hold a position at the postsecondary level (Jones, 2003). English & Umbach (2016) referenced Morelon-Quainoo et al. (2009), stating that "multiple professions, including medical doctors, lawyers, college professors, dentists, pharmacists, principals, surgeons, veterinarians, school superintendents, and various members of the clergy are careers open only to those who have successfully completed either the master's or doctoral degree." The days where one may forgo a college education for a secure well-paying blue collar (e.g. manufacturing) or white collar (e.g. accounting) mid-level job are quickly disappearing as many jobs are being outsourced (Carey, 2004). Today are we faced with a new economy that demands advanced degrees. Morelon-Quainoo et al. (2011) suggested that when considering the connection between educational attainment and career aspiration, there is a paradigm shift away from undergraduate education to the increasing need for an advanced degree. Concurrently, job prospect interests have shifted.

Successful attainment of a need, an advanced degree, translates into job prospects. The MLA (2018) studying career paths found that 79.2% of modern language Ph.Ds. reported higher education as their current place of employment. On the other side of the coin, the pursuit of a doctorate may be to enhance a career path or a job opportunity.

A doctorate degree may open the door to a faculty or leadership position in higher education; it is a requisite for a tenure-track position or a promotion. Ates, Brechelmacher, Campbell, and Park (2015) indicate that, as is common in higher education in multiple countries, a Ph.D. is required to start an academic career and that includes tenure-track, or to promote into the rank of tenure. Alperin and Schimanski's (2018) evaluation of the review, promotion and tenure across different higher education institutions show that higher education institutions typically place more emphasis on research than on service and teaching. A doctorate degree is a transferable skill in the area of research, as well as teaching. Seltzer's (2018) small scale analysis has shown that a doctorate in humanities may prepare its graduates with transferable skills and attributes that are applicable in an academic career. Okahana and Kinoshita (2018) also found that the majority of graduates with a Ph.D. in humanities felt that their education prepared them for academic careers. A Ph.D. may enhance a career path or an opportunity. The majority of the modern language Ph.D. recipients from 1996–1998 to 2006–2008, 86.8%, reported that a doctorate degree is "advantageous" to their career and success (MLA, 2018). This trend continued in the latest study by the MLA (2018): 91.7% of tenure-track and 95.1% of tenured faculty reported that a doctorate degree is "advantageous for their career." Only in 2009-2015 did this percentage drop, and this may be attributed to the 2008 financial crisis (MLA, 2018).

Apart from doctorate degrees being advantageous, doctorate recipients also reported high levels of job satisfaction. Compared to the nonacademic sectors, doctorates employed in academia

reported higher levels of satisfaction in responsibility level, degree of intellectual challenge, and degree of independence (Chang & Milan, 2016). Prospective students interested in an academic career typically pursue a doctorate degree to enhance a career path or job opportunity.

As promising as a doctorate degree may be for job prospects, not having a doctoral program in sign language pedagogy may be a barrier to those interested in this field within the academe. Only 53.3% of working-age Deaf people in the U.S. are employed (Cawthon, Garberoglio, Palmer, & Sales, 2019). Cawthon et al. suggest that based on the data, Deaf people, compared to hearing people, are more likely to be looking for career prospects. However, from 2008 – 2017 the employment rates for Deaf people have not increased and Deaf people are more likely to work as part-time employees (Cawthon et al., 2019). Cooper's study shows parallels to the Cawthon et al. study regarding faculty. Cooper (2004) found that the ratio of full-time to part-time staff has remained the same since Cooper's last study in 1994; the sign language discipline continues to be predominantly part-time faculty. The struggle to attain a full-time job for Deaf people appears to be an ongoing trend. Shelby Hanssen on NBC News reported on August 8, 2019 that NBC News obtained documents from the EEOC which revealed that under the current administration, nontypical persons were fired at around 2 times the rate of their typical-persons counterparts. While career prospects are clear, it may be difficult for a Deaf person to obtain their career objective with the current system in place. A Ph.D. in sign language pedagogy may be able to alleviate this barrier by opening a path to job prospects in the academe.

As the literature has pointed out, an advanced education may help one gain career mobility and break free from the shackles of a systematic cycle. Successful educational attainment increases a Deaf person's employment prospects as well as the median annual earnings (Cawthon et al., 2019; Morelon-Quainoo et al., 2011). When looking at different occupational fields, the field of

education has the 7th highest employment rate for Deaf people (Cawthon et al., 2019). Deaf prospective students interested in the academe expect a doctorate degree to enter the academe, because of the stringent requisites for a faculty position. Ma, Pender, and Welch (2016) find that having a college degree often open doors to positions that are not readily available to those without a degree. Job prospects with a doctorate degree in the academe include, but are not limited to, faculty positions ranging from adjunct to tenured faculty, research, or administration. Cawthon, et al. (2019) found that Deaf people with degrees in the humanities--such as liberal arts, history and the arts--had the highest employment rate compared to other fields. NSF (2018) performed an employment statistical profile of doctorate recipients and found that 84.4% of foreign language and literature doctorate recipients held a job in the academe (Table 69). Job prospects are up for grabs, but there remains a need for a terminal degree with the necessary knowledge and specialization needed to gain employment in the prospective student's area of interest.

2.4 Theoretical Framework

Chapter One lays the groundwork for a pressing problem we face today with hiring qualified candidates to assume faculty or leadership roles due to the lack of sign language pedagogy programs to prepare its graduates for prospective jobs. To gauge the viability of such a program at Gallaudet University to address this problem, the research questions explore the needs and interests of prospective students. In order to understand the underlying behavior behind needs and interests, this study draws from the literature in this chapter to establish the interests, needs and job prospects of prospective students in the academe. Prospective students are core to the

study, which served as a basis for the theoretical framework grounded in human capital theory.

This section explicates the theoretical framework and its connection to the study.

Human capital theory is a widely used framework from an economic or educational perspective in understanding the underlying behavior that drives students' undergraduate and graduate school choices (Paulsen & Toutkoushian, 2008). Fitzsimons (2017) asserts that in the twenty-first century of the western world, human capital theory is grounded in the idea that "all human behavior is based on the economic self-interest of individuals operating within freely competitive markets." Acemoglu and Autor (2011) dig deeper by offering a skill-based perspective in addition to one's self-interest towards a job prospect: "human capital corresponds to any stock of knowledge or characteristics the worker has (either innate or acquired) that contributes to his or her "productivity."" In a capitalist society, the human capital theory places value on "education and training" as a significant factor to the entry of the job market as well as the economic benefits of an educated workforce (Fitzsimons, 2017).

From an educational standpoint, human capital theory is reframed as the decision-making process for a student's choice, with a focus on the benefits in advancing one's education. The educational framework on human capital theory creates an extra layer beyond the economic benefit to a personal benefit. This shift places an emphasis on the individual.

There is a risk of education being narrowed to economic goals, of the broader aims and purposes of education being submerged, and of the person being reduced merely to 'human capital', not as a life to be lived, but as mere economic potential to be exploited (Gillies, 2011).

Using this framework in the context of higher education, the student's short-term and long-term benefits of pursuing an advanced degree are explored (Perna, 2004). Individuals concerned with

short-term benefits focus on their interest in the field and social mobility; long-term benefits, by contrast, may include increased earnings and enhanced opportunities (Perna, 2004). In addition to personal benefits, the decision-making process is also explored (English & Umbach, 2016). This model provides the analytical lens needed to inform the study. The body of the literature is built on this framework identifying three central themes through an educational lens: needs, interests and prospects.

3.0 Methodology

The purpose of the study was to evaluate the viability component of the feasibility study for the proposed Ph.D. in Sign Language Education at Gallaudet University. In this study, viability is defined as a demand. Demand is demonstrated by the need and interest for the proposed program. A quantitative approach utilizing the survey methodology produced important data which was collected and analyzed. The chosen methodology provided the study with important insight needed to support the overall feasibility study of the Ph.D. proposal. The following chapter provides an overview regarding research methodology and its sample group, data collection and analysis, concluding with the researcher's reflexivity, epistemology and limitations of the methodology and approach.

3.1 Research Questions

As Chapter 1 has revealed, meeting the rising demand to fulfill scholarly and leadership roles at multiple higher education institutions that prefer terminal degrees in sign language or a related field is a challenge. To address this challenge, Gallaudet University was proposed to be the launching grounds for the world's first Ph.D. in Sign Language Education. This left the University with the ultimate question: is this proposal feasible? Gallaudet University requires a program proposal to pass through three stages prior to approval for implementation. This study was used to inform Gallaudet University's viability component from Stage 2: A Feasibility Study Proposal Review with the following inquiry questions.

- 1. Do current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education program at Gallaudet University?
 - a) How does value and a professional need for a Ph.D. program vary among current and past graduates?
 - b) What percentage of the sample surveyed expressed a need for a Ph.D. program?
- 2. Are current and past graduates of a sign language master degree program interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University?
 - a) How does interest for a Ph.D. vary among current and past graduates?
- b) What percentage of the sample surveyed expressed interest in pursuing a Ph.D.? These inquiry questions served as a guide for this study on the viability of the proposal.

3.2 Approach & Methodology

If successfully implemented, a Ph.D. in Sign Language Education would be the first of its kind in the world. In order to inform the viability of the proposal, the study was concerned with prospective students' opinions. "Questionnaires are ideally suited to assess what people report they believe because feelings and opinions are not readily observed and easily measured with other research methods" (Nardi, 2014, p. 78). This gave the principal investigator the ability to quantify opinions as well as use the data statistically in a way that informed the inquiry questions. Humans are socialized creatures; it is easy for us to generalize across a population based on observations or interviews, but a quantitative approach allows the principal investigator to present scientific data-based results (Nardi, 2014). There were additional benefits to choosing this approach and methodology for this specific study.

A successful study necessitated a methodology that was accessible for prospective students, and could provide the principal investigator with access to this sample group in order to collect answers for the inquiry questions. To accomplish this, it was clear that a quantitative approach by utilizing a survey methodology was the appropriate choice. Other potential methodologies were eliminated due to their limitations, costs and/or time constraints. Schmidt (1997) notes that with the rapid increase of the Internet globally, researchers now have the ability to reach their sample group virtually anywhere with accessible online surveys. An online survey has both the ability to be accessible and to gain access to the prospective students to gather data needed to inform the inquiry questions.

Collecting the data needed for this study required a methodology that was accessible for this certain population. The prospective students were bilingual in ASL and English. For the online survey to be accessible by both languages, ASL and English were included. The linguistic nature of ASL uses the hands and body, a modality separate from voice. Due to the visual spatial language, videos were required to be able to convey the questions this study sought to understand. English was provided in the traditional format of surveys, text. The research design of an online survey has the capability to be both visually and textually based. This made online surveys the appropriate methodology to deliver a survey in ASL and English to the bilingual sample group. The accessibility of an online survey allowed the principal investigator to target this sample for data collection.

The ability to access the prospective students for data collection was another important factor in the choice of a survey methodology. The Master in Sign Language Education program at Gallaudet University is hybrid in design. The majority of the courses are conducted online during the fall and spring semester. The students only meet briefly during the summer for a 3-week

condensed face-to-face session. Due to the nature of the program, prospective students live in every corner of the U.S. and abroad. The program has a secure contact information database of current and alumni prospective students' emails. The geographical demographics of the prospective students are diverse. Also, prospective students are computer literate and expected to possess satisfactory competency with technology in order to participate in the program. To feasibly access this sample group spread across the world, an appropriate methodology with internet capabilities was required. The online survey was chosen for its capability to reach the prospective students by email through the Internet. This chosen methodology supported the analysis this study performed, which gave the principal investigator access to the sample group.

3.3 Sample Group

To collect information the inquiry questions sought, purposive sampling was applied. This technique is a form of nonprobability sampling which is discussed further in the Data Collection section. Prospective students were identified to be the sample group needed to inform the viability of the proposal.

This sample group of prospective students consisted of approximately 30 current students and 250 alumni of the Gallaudet University Master in Sign Language Education program. This diverse bilingual sample group consisted of individuals who were pursuing, or had graduated with, an advanced degree in the field of sign language pedagogy. Students enrolled in this program study sign language pedagogy in a condensed 15-month program. The goals of then-current students varied from teaching to administrative roles. Alumni of the program have held a range of jobs

including an ASL instructor, scholar, specialist, coordinator, chair, and director at all levels of education. This sample group represented the pool of prospective students due to their background.

Combined, the sample group consisted of approximately 280 prospective students. Of the 280 prospective students, only 5 are hearing. A review of the literature was used to guide the benchmark for an acceptable online survey response rate. Crawford, Couper, and Lamias (2001) interested in a participant's participation in an online survey performed a series of experiments and found that the complete response rate of the 4 populations sampled was 24.4%. Similarly, further review of the literature also showed the general average response rate fell between 24% -28% (Kwak & Radler, 2000; Medlin, Roy & Ham Chai, 1999; Paolo, Bonaminio, Gibson, Partridge, & Kallail, 2000). This study established the acceptable online survey response rate at 24%. To meet the acceptable response rate established by this study, the online survey needed at least 67 participants. The survey ultimately collected data from 114 participants who completed the survey in its entirety. This translates to a 41% response rate, well beyond the established acceptable minimum response rate of 24%. In comparison to other studies putting the average response rates between 24% - 28% by Crawford, Couper, and Lamias (2001), Kwak and Radler (2000), Medlin, Roy and Ham Chai (1999), Paolo, Bonaminio, Gibson, Partridge, and Kallail (2000), the response rate for this study was relatively high.

The survey included demographic questions on educational credentials (survey question #1), age (survey question #2) and hearing status (survey question #3). As demonstrated in Table 1, the survey's 114 participants consisted of current and alumni students from cohorts of the MA-SLED program, dating since its inception in 2011 at Gallaudet University. Alumni who possessed only a master's degree in Sign Language Education comprised the largest group, making up 74% of the overall sample group. Then-current Ph.D. or Ed.D. students with a master's degree in Sign

Language Education were the smallest group, making up 5% of the overall sample group. Thencurrent master's in Sign Language Education students fell in between at 21%.

Listed are the age groups in the order from largest to smallest: ages 35 - 44 (33%), ages 27 - 34 (25%), ages 45 - 54 (25%), ages 18 - 26 (11%), and finally, ages 55 + (6%). Of the overall sample group, ages 35 - 44 represented the largest age group at 33%. Ages 55 + at 6% represented the smallest group of the overall sample group.

The final demographic variable collected by the online survey instrument was the hearing status of the participant. One hundred percent of the 114 participants self-reported their status as "Deaf." The following table provides a descriptive statistic of the overall makeup on 3 variables from this sample group.

Table 1 Demographic Makeup

Variables	%
Educational Credentials	
Current Graduate	21%
Past Graduate with a Master	74%
Past Graduate & a Current Doctorate Student	5%
Age	
18-26	11%
27-34	25%
35-44	33%
45-54	25%
55+	6%
Hearing Status	
Deaf	100%
Hearing	0%

The dominant homogenous makeup of the sample group consists of Deaf graduates who possess a sign language degree between the ages of 35 - 44.

Gallaudet University's administration was consulted to understand what percentage of the sample surveyed expressed a need for the proposed program, and their interest in a terminal degree was considered acceptable. It has been established that at least 50% of 67 or more participants responding yes to inquiry question #1b and #2b may be considered viable. Inquiry question #1b represents a need, "what percentage of the sample surveyed expressed a need for a Ph.D. program?" Inquiry question #1b is informed by survey question #15: "...do you think there is a need for a Ph.D. in Sign Language Education?" Inquiry question #2b represents an interest: "what percentage of the sample surveyed expressed interest in pursuing a Ph.D.?" Inquiry question #2b is informed by survey question #21: "would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?" An online survey was distributed to this sample group to collect data.

3.4 Survey Methodology

The online survey instrument was conducted through the University of Pittsburgh's Qualtrics Survey System. To inform the viability of the proposal, the survey questions were designed to be descriptive questions to learn from the prospective students about the need for the proposed program, and their interest in a terminal degree. Descriptive questions are a research design that collects facts or characteristics from an identified sample group the principal investigator is attempting to measure or describe (Dulock, 1993; Fowler, 2014). This allowed the survey questions to capture quantifiable data the inquiry questions require. Participants chose from

a 4-item Likert scale of either Yes!, yes, no, or No!, which was converted to discrete data for descriptive statistical analysis.

The development of the online survey questions was guided by the inquiry questions. The process of creating the online survey questions itself was multifold. It began with a literature review informing the process of developing quality descriptive questions. Fowler (2014) states that designing an online survey question is not of intrinsic interest, but shows the relationship between an answer and what the principal investigator is trying to measure. Stern (2008) also cautions researchers to be concise in their questions and options when designing surveys to avoid being cumbersome for participants. In light of the quantitative nature of this study, the questions for the online survey were closed-ended and concise to capture the relationship between the answers and the inquiry questions. To ensure the online survey questions collected what the viability study sought, the Associate Provost and the Director of Accreditation, Certification & Licensure were also consulted. The input from the literature and experts laid out the framework for designing online survey questions, which collected data the principal investigator intended to measure. Please refer to Appendix B for the instrument.

The survey instrument began with a screening question, question #1, which inquired for the participant's educational credentials by asking what educational category the participant belonged to. This ensured the participant met the eligibility criteria, which specified the characteristics of individuals in the sample group must be a current graduate student, possess a sign language master's degree and be a current Ph.D. or Ed.D. student. Choosing "Neither" as an answer automatically disqualified a participant from continuing with the online survey and redirected to a page thanking the participant for their time. Only one participant was screened out for not meeting the eligibly criteria. If the participant was

eligible, the instrument continued with two more demographic questions learning about the participant's age, and hearing status. The demographic information collected allowed the study to give descriptive statistics on the sample group. The demographic descriptive statistics supported the principal investigator in identifying areas of viability by demographics.

After the three demographic questions, the instrument continued to explore the area of "A Value & Need" with thirteen additional questions (#4 - #16 and #27). This section was interested in the value of, and need for, a Ph.D. program. Participants indicated their opinions on the general value and need for each item provided. The responses collected produced data which was quantified and measured to inform inquiry question #1. This allowed the study to give descriptive statistics on the need and value for a proposed program.

Once this section was completed, the instrument continued onto the second section, "An Interest." This section was interested in the participant's personal interest for a Ph.D. Participants indicated their interest in a terminal degree for each item provided. In this section, the instrument provided the participant with one of the two available sets of questions depending on how the participant answered question #21: "would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?" If Yes! or yes was chosen, then the participant was directed to an additional total of ten questions (#17 - #26). Survey questions #22 - #25 inquired more about their interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University. If No! or no was chosen for question #21, then the participant answered a total of six additional questions (#17 - #21 and #26). The responses collected produced data that was quantified and measured to inform inquiry question #2. This allowed the study to give descriptive statistics on the interest in a terminal degree.

Table 2 is a conceptual map that illustrates the relationship between the inquiry questions and survey items.

Table 2 Relationship Between Inquiry Questions & Survey Items

	INQUIRY QUESTIONS	SURVEY ITEMS
VIABILITY STUDY	1, 1a, 1b	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,
	2, 2a, 2b	16, 27 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

3.5 Data Collection

During the Fall semester of 2019, an online survey was developed with the intent to collect data on prospective students' perceived value, need and interest in a Ph.D. in Sign Language Education. The development of the survey was completed in December with a target date for mass email distribution in January 2020. The distribution was completed as planned during academic year January 2020.

The online survey was administered through a link created by the University of Pittsburgh's Qualtrics Survey System. Qualtrics is user friendly and was provided free of charge to the participants. The introductory email containing a link to the online survey was distributed to the identified sample group by using the Master in Sign Language Education program's secure contact information database of current and alumni prospective students' emails. The email contained an introduction to the purpose of the study, and why the participant was of interest to the study. It also contained the contact information of the principal investigator for any questions or concerns. The email introductory script may be found in Appendix C. The targeting of this

sample group based on their knowledge of the population and the study is purposive sampling. The purpose of purposive sampling is to choose a sample group that may provide the best relevant information that the study seeks to learn (Patten, 2005). The principal investigator was responsible for the email distribution that went out to 280 prospective students.

On January 7, 2020 the principal investigator electronically distributed the surveys via Qualtrics to the identified prospective students. Participants were asked to indicate their feelings on certain themes by using a Likert scale: YES!, yes, no, NO! Qualtrics has the ability to send follow-up reminders to complete the survey for those who did not complete their survey. Two reminder emails with a subject heading of "A Friendly Reminder: Please Participate in Our Survey" with the same introductory script were sent out to the prospective students on January 14 and 17. During the duration of the open survey period, the principal investigator encountered no issues, and responded to a few questions from the participants. At the conclusion of the open survey period on January 23, 2020, quantitative data was collected from Qualtrics and imported for analysis regarding the value, need and interest for the Ph.D. in Sign Language Education at Gallaudet University proposal.

3.6 Data Analysis

At the conclusion of the online survey period, data was imported into Microsoft Excel for data maintenance and analysis. The imported data was sorted into two groups. Data collected from survey questions #4 - #16, and #27 was sorted into group one: "A Value & Need." Data collected from survey questions #17 - #26 was sorted into group two: "An Interest." Descriptive statistics and visualizing data are an important part of presenting data in a way that is comprehensible to an

audience (Patten, 2005). The dataset was also cleaned for errors to minimize its impact on the inquiry results, though it should be noted that with closed-ended answers, "the rate of error from data entry should be much less than 1%" (Fowler, 2014, p. 132). This increased the reliability and quality of the dataset used for analysis.

3.6.1 Demographics

The study revealed the educational credentials (survey question #1), age (survey question #2) and hearing status (survey question #3) demographics of the participants. The three demographic questions were counted and given a numerical value using descriptive statistics to demonstrate the total makeup of participants from each category. This dataset provided the principal investigator with the ability to prepare a frequency distribution table and crosstabulations as laid out in Chapter 4. This allowed the principal investigator to filter data, identify, and reveal areas of values, needs and interests by demographics.

3.6.2 Group One

Group one data demonstrates the need and value of the proposal. An analysis of the following tables produced research results for Chapter 4. Data from "A Value & Need" survey questions #4 - #16 and #27 was fed into a frequency table demonstrating the frequency of the participants' YES! yes no NO! responses to each survey question. Inquiry question #1a explored "how does value and a need for a Ph.D. program vary among current and past graduates?" For inquiry question #1a, YES! yes responses were also combined to reflect "yes", and NO! no responses were combined to reflect "no" for cross-tabulation analysis. Cross-tabulations were

performed for each "A Value & Need" survey questions creating a table demonstrating the "yes" and "no" responses between current students and past graduates. This gave an overview of how current students and past graduates' responses compared to the overall frequency distribution. Inquiry question #1b explored "what percentage of the sample surveyed expressed a need for a Ph.D. program?" For inquiry question #1b, survey question #15, "overall, do you think there is a need for a Ph.D. in Sign Language Education?", was analyzed. The YES! yes responses of the sample group were combined to reflect "yes", and no NO! responses of the sample group were combined to reflect no. A percentage for the "yes" and "no" responses were produced to inform inquiry question #1b.

3.6.3 Group Two

Group two data demonstrates the interest for a Ph.D. An analysis of the following tables produced research results for Chapter 4. Data from "An Interest" survey questions #17 - #26 was fed into two frequency tables. Each table demonstrated the frequency of the participants' YES! yes no NO! responses to each survey question. The first frequency table demonstrated the overall frequency of responses to #17 - #21 and #26. The second frequency table demonstrated the frequency of responses to survey questions #22 - #25 by participants who answered YES! or yes to question #21, "would you be interested in pursuing a Ph.D. at Gallaudet University at any point in the future?" Inquiry question #2a explored "how does interest for a Ph.D. vary among current and past graduates?" For inquiry question #2a, YES! yes responses were also combined to reflect "yes", and NO! no responses were combined to reflect "no" for cross-tabulation analysis. Cross-tabulations were performed for each "An Interest" survey question to create tables demonstrating the "yes" and "no" responses between current students and past graduates. This gave an overview

of how current students and past graduates' responses compared to the overall frequency distribution. Inquiry question #2b explored "what percentage of the sample surveyed expressed an interest in pursuing a Ph.D.?" For inquiry question #2b, survey question #21, "would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?", was analyzed. The YES! yes responses of the sample group were combined to reflect "yes", and no NO! responses of the sample group were combined to reflect no. A percentage for the "yes" and "no" responses were produced to inform inquiry question #2b.

3.7 Researcher's Reflexivity

I identify as a Deaf person. Throughout this paper, the term "Deaf" with a capital "D" refers to the cultural aspect of the Deaf community (language, art, values, etc.) and the term "deaf" with a lower-case "d" refers to the audiological aspect of hearing status. My identity began to formulate immediately as I was the only deaf child, with three hearing sisters, born to hearing parents. During middle school my identity and positionality was further solidified as I transferred to a Deaf school. Upon graduation, I attended Rochester Institute of Technology for an M.S. in Business. Upon my completion of that degree, the Bank of New York Mellon hired me as a Fiduciary Accountant. Coinciding with this, I started teaching night classes at the University of Pittsburgh. Eventually my interests and career change brought me to Gallaudet University for an M.A. in Sign Language Education. The culmination of my career intertwined between business and academics. Naturally, this led me to the University of Pittsburgh where my interests aligned with an Ed.D. in Higher Education Management. My area of interest is in the intersection of administration and education. During my studies at the University of Pittsburgh, I was offered a position with Gallaudet

University. Since I had already identified my research topic as the discipline of sign language pedagogy prior to my hire, it felt perfectly logical that I should apply my area of research towards Gallaudet University, world-renowned for their discipline within ASL.

It is my identity and positionality that led me here. Today I am a Pre-Tenure Track Instructor in the Department of ASL and Deaf Studies situated within the College of Arts and Sciences at Gallaudet University. As a former student of Gallaudet University's Master in Sign Language Education and a current faculty, I have a genuine interest in investigating the viability of a Ph.D. in Sign Language Education proposal at Gallaudet University. The sample group was selected for their direct relationship to the ASL discipline. I recognize my privilege as the majority of my identities place me into the dominant demographic groups in the United States. As the sole investigator of this study, I also recognize the responsibility to conduct and convey the study in an accurate and equitable way.

3.8 Researcher's Epistemology

Epistemology. Knowledge was core and central to this study. I approached this study and the research informing it through a postpositivist framework. How one derives and uses knowledge requires careful planning and responsibility. This means analyzing how a researcher played a role in this study and distinguish belief from opinion. The information in this publication came from research, literature and an online survey of knowledge imparted by the participants.

Postpositivism is an approach guiding an educational or psychological researcher in their study. Tying together the knowledge collected by this study required an approach that was objective and respected those who were directly or indirectly involved with the study. Mertens

(2010) explains that a researcher using a postpositivist lens is objective and withdraws personal prejudices, preferences, biases to not contaminate the outcome of the study. Postpositivists should be neutral, attempting to generalize based on results collected from their study. According to Mertens (2010), there are six norms of this paradigm a researcher should abide by, which are: 1. Use a valid research design, 2. The researcher must be competent, 3. Consequences of the research must be identified, 4. The sample selection must be appropriate, 5. The participants must freely agree to this study, and 6. The researcher must be truthful with the participants, especially if harm is involved. By applying this framework to quantitative methods and following these standards, a researcher may perform a study in an ethical manner. For this study I approached research through postpositivist lens.

3.9 Limitations of the Method/Approach

While purposive sampling was used to select the sample group for their specialized knowledge in this area, there are some limitations to this approach. The non-probabilistic nature of a purposive sample limits generalization of the results across the population. Sharma (2017) states that using a purposive sampling makes it difficult for the researcher to defend the representativeness of a sample compared to using a probability based approach. Sharma also discusses the potential for researcher bias in the selection of a specific sample. For this reason, the principal investigator approached this study with postpositivist lens by being objective and withdrawing personal biases.

The main instrument of this study was an online survey. While the online survey is a great cost-effective tool for eliciting responses from a wide audience accessible through the Internet,

there are also some limitations. The quality of responses depends on one's attentiveness to the survey, coupled with the fact that surveys are impersonal due to the online nature of taking surveys at a remote location at the convenience of participants' own choosing. It is possible the individuals may have provided careless or misrepresentative responses. Stern (2008) has found that participants often respond to online surveys quickly, which may produce errors and not accurately capture the participant's thoughts. Participants may have also responded in a way they believed was socially desirable, not reflecting their true thoughts (Wright, 2005). The results of the study were limited to the extent of the participants' answers.

4.0 Research Results

The primary purpose of this study is to learn the viability of the proposed Ph.D. in Sign Language Education at Gallaudet University. In order to gauge the value, need and interest on the proposal's viability, a survey was devised and distributed to identified prospective students. This chapter discusses the quantitative findings collected from the distributed surveys guided by the inquiry questions aimed at understanding the viability of the proposal. The two inquiry questions with sub-questions guiding this study explore: do current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education program at Gallaudet University and are current and past graduates of a sign language master degree program interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University? The following chapter provides sections with an overview of detailed results addressing the research questions, responses and findings.

4.1 A Value & Need

Inquiry Question #1 "do current and past graduates of a sign language master degree program value and see a professional need for a Ph.D. in Sign Language Education program at Gallaudet University?"

Data from group one (survey questions #4 - #16 and #27) explores the frequency of the participant's responses, identifying areas of value and need by demographics by using crosstabulations. For survey questions #4 - #16, participants were provided with the following

instructions, "Unless indicated, the following questions are in general. When responding to the following questions, please think in terms of the generality of the situation posed, and not necessarily how it would apply to you personally." Participants indicated their level of agreement or disagreement to group one questions using the Likert scale: YES!, yes, no, NO! Data from "A Value & Need" survey questions #4 - #16 and #27 is fed into a frequency table. Table 3 provides the overall frequency distribution of the participant's YES! yes no NO! responses to each survey question.

Table 3 A value and professional need by current and past graduates of the sign language master degree program for a Ph.D. in Sign Language Education program at Gallaudet University (n=114)

Question	Yes! %	Yes %	No %	No! %
Q4. Is there a comparable Ph.D. program to Sign Language Education currently in existence?	n/a	8%	92%	n/a
Q5. Is there a need for a Ph.D. in Sign Language Education after a master in teaching sign language degree?	85%	11%	3%	1%
Q6. Do you believe that possessing a Ph.D. in Sign Language Education will create opportunities for graduates in the field of sign language pedagogy?	85%	12%	3%	0%
Q7. Is there a gap in hiring qualified candidates with an appropriate terminal degree in the sign language discipline?	53%	38%	9%	0%
Q8. Would a Ph.D. in Sign Language Education provide value to a current or future job in the field of sign language pedagogy?	81%	17%	2%	0%
Q9. Is a Ph.D. in Sign Language Education a specialized knowledge needed for academic teaching jobs?	65%	27%	8%	0%

Q10. Do you believe a Ph.D. in Sign Language Education as a specialized knowledge is needed for academic administrative jobs?	72%	20%	8%	0%
Q11. Is a Ph.D. in Sign Language Education degree a type of specialized knowledge needed for research-related jobs?	74%	23%	3%	0%
Q12. Would a Ph.D. in Sign Language Education advance the scholarship of the sign language pedagogy discipline?	75%	22%	3%	0%
Q13. Would employers see value in candidates with a Ph.D. in Sign Language Education?	77%	21%	2%	0%
Q14. Do you believe the value and need for a Ph.D. in Sign Language Education may increase within the next 10 years?	78%	19%	3%	0%
Q15. Overall, do you think there is a need for a Ph.D. in Sign Language Education?	84%	14%	2%	0%
Q16. Overall, do you think there is value in a Ph.D. in Sign Language Education?	82%	16%	2%	0%
Q27. Should a Ph.D. in Sign Language Education be implemented at Gallaudet University?	n/a	98%	2%	n/a

While the demographics collected presents a diverse dataset in educational background and age from a sample group spread throughout the world, a common theme reflecting mutual consensus appeared throughout the findings regarding the value and need for a Ph.D. in Sign Language Education. The dominant consensus among the current and past graduates is that there is no comparable Ph.D. program to Sign Language Education currently in existence (92%), and that such program should be established at Gallaudet University (98%). This indication is also highly supported by the participants' inclination to respond "YES!" or "yes" to each question

posed as shown in Table 3, demonstrating a value and need for a Ph.D. in Sign Language Education program. At least 81% of the current and past graduates strongly felt (Yes!) a Ph.D. in Sign Language Education program is needed, and a degree will provide value and create opportunities.

Over three-quarters of participants believe employers are likely to see value in a Ph.D. degree (77% - YES!) as the value and need for a Ph.D. in Sign Language Education may increase within the next 10 years (78% - YES!). The participants' belief parallels with, as revealed in Chapter 1, a projection by the U.S. Bureau of Labor Statistics (2018) that the need for foreign language and literature instructors in higher education, which includes ASL, will rise by 12% between 2016 and 2026. This may be problematic considering there is nearly a uniform agreement (91%) that there is a gap in hiring qualified candidates for academic teaching jobs with 53% indicating YES! and 38% indicating yes.

To identify what areas a Ph.D. in Sign Language Education as a specialized knowledge is needed, participants were asked to indicate their opinions on different areas of need. When analyzing areas of need participants strongly felt that a Ph.D. in Sign Language Education as a specialized knowledge is needed in the areas of, in the order of most needed to least needed, advancing the scholarship of the discipline (75% YES! and 22% yes), research (74% YES! and 23% yes), and administrative jobs (72% YES! and 20% yes). Outside of the top three identified areas of need, participants are less inclined to identify academic teaching jobs as a strong priority need (65% YES! and 27% yes). However, none of the participants strongly disagreed (No!) with any of the identified areas where a specialized knowledge is needed. Only a few expressed a disagreement (no) in these areas, never exceeding 8%. There is a strong indication of a value and a professional need in a Ph.D. in Sign Language Education degree across the board.

Inquiry Question #1A "how does value and a need for a Ph.D. program vary among current and past graduates?"

Participants were asked to indicate their opinions on the value and need for a Ph.D. program. As a result, cross-tabulations were performed for each "Value and Need" questions to reveal areas of value and need among current and past graduates. Participants who self-reported as "I am currently a sign language graduate student" are categorized as current graduate students for the following narrative. Participants who self-reported as "I possess a sign language graduate degree" and "I possess a sign language graduate degree and I am currently a Ph.D. or Ed.D. student" are categorized as past graduate students for the following narrative. The Likert scale was also merged for the following narrative. Whether the participants strongly agreed (YES!) or felt they were in an agreement (yes) with a given survey question, the Likert scale variables YES! and yes were merged for analysis to reflect the opinion of at least a "yes." Similarly, the Likert scale variables No! and no were merged for analysis to reflect the opinion of at least a "no" to a given survey question. Table 4 provides the overall frequency distribution of responses to survey questions #4 - #16 and #27 as an overview of how current and past graduate students of the MA-SLED program compare.

Table 4 A value and need for a Ph.D. in Sign Language Education among current and past graduates

	Current Graduates (n=24)		Past Graduate (n=90)	
Question	Yes %	No %	Yes %	No %
Q4. Is there a comparable Ph.D. program to Sign Language Education currently in existence?	0%	100%	10%	90%
Q5. Is there a need for a Ph.D. in Sign Language Education after a master in teaching sign language degree?	92%	8%	97%	3%

Q6. Do you believe that possessing a Ph.D. in Sign Language Education will create opportunities for graduates in the field of sign language pedagogy?	100%	0%	97%	3%
Q7. Is there a gap in hiring qualified candidates with an appropriate terminal degree in the sign language discipline?	92%	8%	90%	10%
Q8. Would a Ph.D. in Sign Language Education provide value to a current or future job in the field of sign language pedagogy?	100%	0%	98%	2%
Q9. Is a Ph.D. in Sign Language Education a specialized knowledge needed for academic teaching jobs?	83%	17%	95%	5%
Q10. Do you believe a Ph.D. in Sign Language Education as a specialized knowledge is needed for academic administrative jobs?	96%	4%	91%	9%
Q11. Is a Ph.D. in Sign Language Education degree a type of specialized knowledge needed for research-related jobs?	96%	4%	98%	2%
Q12. Would a Ph.D. in Sign Language Education advance the scholarship of the sign language pedagogy discipline?	100%	0%	97%	3%
Q13. Would employers see value in candidates with a Ph.D. in Sign Language Education?	96%	4%	99%	1%
Q14. Do you believe the value and need for a Ph.D. in Sign Language Education may increase within the next 10 years?	92%	8%	98%	2%
Q15. Overall, do you think there is a need for a Ph.D. in Sign Language Education?	100%	0%	98%	2%

Q16. Overall, do you think there is value in a Ph.D. in Sign Language Education?	100%	0%	98%	2%
Q27. Should a Ph.D. in Sign Language Education be implemented at Gallaudet University?	100%	0%	98%	2%

Chapter 1 of this study indicated that there are no Ph.D. in Sign Language Education focused on pedagogy. Majority of the current (100%) and past graduate (90%) students also indicate that there is not a comparable Ph.D. program to Sign Language Education currently in existence. Of the overall sample group, only 2% of past graduate students disagreed that a Ph.D. in Sign Language Education should be established at Gallaudet University. The shared sentiments between both groups closely mirror each other throughout the questions posed before them as shown in Table 4. Both groups are largely enthusiastic when it comes to the overall outlook on the value and need for a Ph.D. in Sign Language Education with 100% of current graduates and 98% of past graduates indicating an agreement on the overall outlook. There is a clear shared consensus on the overall general needs and values for a Ph.D. in Sign Language Education for current and past graduates.

Interestingly, the areas where current and past graduates' responses start to diverge slightly are employment related questions, which is likely tied to one's career stage. Past graduates are more enthusiastic towards career-orientated questions. The question that received the most yeses for this group was "would employers see value in candidates with a Ph.D. in Sign Language Education?", with 99% reporting "yes". In comparison, 96% of current graduates reported "yes" for the same question. In a similar vein, 97% of past graduates reported that a Ph.D. in Sign Language Education is needed after obtaining a master's degree in the same field compared to

92% of current graduates reporting "yes". When analyzing areas where the most value and need lies, past graduates expressed that the top two areas a Ph.D. in Sign Language Education as a specialized knowledge is needed are research-related (98%) and academic teaching jobs (95%). Conversely, the percentage of current graduates indicating a need for a Ph.D. as a specialized knowledge in research-related jobs stands at 96%, and academic teaching jobs received the least yeses, 83%. Current graduates appear more enthusiastic towards the prospects and opportunities that may come with obtaining a Ph.D. in Sign Language Education. One-hundred percent of the current graduates believe that possessing a Ph.D. in Sign Language Education degree will open doors for them, and provide value to a current or future job in the field of sign language pedagogy.

Inquiry Question #1B explores "what percentage of the sample surveyed expressed a need for a Ph.D. program?"

To gauge the need for a Ph.D. program, the sample group was posed with the following question from survey question #15, "overall, do you think there is a need for a Ph.D. in Sign Language Education?" As shown in Table 5, YES! and yes responses were merged to reflect the opinion of at least a "yes" (98%). No! and no were merged to reflect the opinion of at least a "no." The sample group dominantly expressed a need for a Ph.D. in Sign Language Education with only 2% indicating "no" to the question posed.

Table 5 Is there a need for a Ph.D. in Sign Language Education (n=114)

Question	Yes %	No %
Q15. Overall, do you think there is a need for a Ph.D. in Sign Language Education?	98%	2%

Based on the established response rate of 24% and at least 50% of the sample group indicating a need as discussed in Chapter 3, the threshold has been met.

4.2 An Interest

Inquiry Question #2 "are current and past graduates of a sign language master degree program interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University?"

Data from group two (survey questions #17 - #26) explores the frequency of the participant's responses, identifying areas of interest by demographics by using cross-tabulations. For survey questions #17 - #26, participants were provided with the following instructions, "The following questions seeks to learn about your interests. When responding to the following questions, please think in terms of how the questions would apply to you personally." Participants indicated their level of agreement or disagreement to group two questions using the Likert scale: YES!, yes, no, NO! Data from "An Interest" survey questions #17 - #26 is fed into two frequency tables. Table 6 demonstrates the overall frequency of responses to survey questions #17 - #21 and #26. Table 7 demonstrates the frequency of responses to survey questions #22 - #25 by participants who answered YES! or yes to question #21, "would you be interested in pursuing a Ph.D. at Gallaudet University at any point in the future?"

Table 6 Current and past graduates of a sign language master degree program interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University (n=114)

Question	Yes! %	Yes %	No %	No! %
Q17. Would a Ph.D. in Sign Language Education provide value to your current job or future job search?	66%	25%	8%	1%
Q18. Do you believe a Ph.D. in Sign Language Education is needed to advance your career?	65%	21%	13%	1%
Q19. Does a Ph.D. in Sign Language Education align with your career interest?	66%	24%	9%	1%
Q20. Are you actively searching for a Ph.D. program similar to a Ph.D. in Sign Language Education?	n/a	61%	39%	n/a
Q21. Would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?	53%	32%	14%	1%
Q26. Would you recommend a Ph.D. in Sign Language Education to others?	68%	31%	1%	0%

When inquiring about one's interests, the participants felt less strongly across the board in comparison to Inquiry Question #1. Current and past graduates strongly agree a Ph.D. in Sign Language Education would be beneficial (66% - YES!), and the participants would definitely recommend a Ph.D. in Sign Language Education to others with only 1% indicating "no". Of the overall participants, 61% indicated that they are pursuing a Ph.D. program similar to a Sign Language Education program. It should be noted that when inquiring about if one is actively searching for a similar Ph.D. elsewhere (61% yes) and if one would pursue a Ph.D. in Sign Language Education at Gallaudet at any time (53% YES! and 32% yes), the percentage, with "Yes!" and "yes" combined, shot up from 61% to 85%, respectively.

Table 7 Current and past graduates of a sign language master degree program interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University (n=97)

Question	Yes! %	Yes %	No %	No! %
Q22. Is your motivation for a Ph.D. to gain a faculty position at any levels of education?	67%	27%	6%	0%
Q23. Is your motivation for a Ph.D. to enhance career advancement?	71%	26%	3%	0%
Q24. Is your motivation for a Ph.D. to increase your salary?	51%	33%	15%	1%
Q25. Would you pursue a Ph.D. in Sign Language Education within the next 10 years?	62%	36%	2%	0%

Eighty-five percent (n=97) of the participants expressed interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future by responding "Yes!" (53%) and "yes" (32%) to question #21 in Table 6. As shown in Table 7, among those participants nearly unanimously indicated that they would pursue a Ph.D. in Sign Language Education within the next 10 years with only 2% indicating "no". To learn more about their interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University, the participants were given three additional questions, #22 - #24. Enhancing one's career advancement came out top as the strongest motivator with 71% (YES!) expressing a strong agreement and 26% (yes) expressing an agreement. Gaining a faculty position followed closely as a motivator for pursuing a Ph.D. with 67% (YES!) in a strong agreement and 27% (yes) in agreement. The least likely motivator for pursuing a Ph.D. is to increase one's salary with 51% (YES!) of the participants indicating a strong agreement and 33% (yes) indicating an agreement with the question posed.

Inquiry Question #2A "how does interest for a Ph.D. vary among current and past graduates?"

Participants were asked to indicate their interests for a Ph.D. Cross-tabulations were performed for each "An Interest" questions to reveal areas of interest among current and past graduates. Participants who self-reported as "I am currently a sign language graduate student" are categorized as current graduate students for the following narrative. Participants who self-reported as "I possess a sign language graduate degree" and "I possess a sign language graduate degree and I am currently a Ph.D. or Ed.D. student" are categorized as past graduate students for the following narrative. The Likert scale was also merged for the following narrative. Whether the participants strongly agreed (YES!) or felt they were in an agreement (yes) with a given survey question, the Likert scale variables YES! and yes were merged for analysis to reflect the opinion of at least a "yes." The Likert scale variables No! and no were merged for analysis to reflect the opinion of at least a "no" to a given survey question. Table 8 demonstrates the overall frequency of responses to survey questions #17 - #21 and #26 as an overview of how current and past graduate students of the MA-SLED program compare. Table 9 demonstrates the frequency of responses to survey questions #22 - #25 by participants who answered YES! or yes to question #21, "would you be interested in pursuing a Ph.D. at Gallaudet University at any point in the future?"

Table 8 An interest for a Ph.D. among current and past graduates

Question	Current Graduates (n=24)		Graduates (n=90)	
	Yes %	No %	Yes %	No %
Q17. Would a Ph.D. in Sign Language Education provide value to your current job or future job search?	96%	4%	90%	10%
Q18. Do you believe a Ph.D. in Sign Language Education is needed to advance your career?	96%	4%	83%	17%
Q19. Does a Ph.D. in Sign Language Education align with your career interest?	96%	4%	89%	11%
Q20. Are you actively searching for a Ph.D. program similar to a Ph.D. in Sign Language Education?	50%	50%	63%	37%
Q21. Would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?	88%	12%	84%	16%
Q26. Would you recommend a Ph.D. in Sign Language Education to others?	100%	0%	99%	1%

When inquiring about one's interest, current and past graduates generally felt strongly about the benefits of possessing a Ph.D. degree in sign language pedagogy. Ninety-six percent of current graduates and 90% of past graduates see the potential a Ph.D. in Sign Language Education has in providing value to one's current or future job search. Ultimately both groups would recommend a Ph.D. in Sign Language Education to others as well with only 1% of past graduates indicating "no". As discovered in Inquiry Question #1A, the divergence between both groups also become apparent when posed with questions that may relate to where one is in their career. When

looking at "interest", past graduates are less likely to agree (83%) that a Ph.D. in Sign Language Education is needed to advance their career. Current graduates however, indicated "yes" (96%) that a Ph.D. in Sign Language Education would benefit their career aspirations.

Table 9 An interest for a Ph.D. among current and past graduates

Question	Current Graduates (n=21)		Graduates (n=76	
	Yes %	No %	Yes %	No %
Q22. Is your motivation for a Ph.D. to gain a faculty position at any levels of education?	95%	5%	93%	7%
Q23. Is your motivation for a Ph.D. to enhance career advancement?	95%	5%	97%	3%
Q24. Is your motivation for a Ph.D. to increase your salary?	90%	10%	82%	18%
Q25. Would you pursue a Ph.D. in Sign Language Education within the next 10 years?	100%	0%	97%	3%

Eighty-eight percent (n=21) of current graduates and eighty-four percent (n=76) of past graduates expressed interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future by responding "Yes!" and "yes" to question #21 in Table 8. As shown in Table 9, among the current graduates they were unanimous in pursuing a Ph.D. in Sign Language Education within the next 10 years. Past graduates also strongly felt they would pursue a Ph.D. in Sign Language Education within the next 10 years as well with only 3% indicating "no". To learn more about their interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University, the participants were given three additional questions, #22 - #24.

Enhancing one's career came out as the dominant motivator for both groups with 95% of the current graduates and 97% of past graduates in agreement with the question posed. Gaining a faculty position came out as the second highest motivator for both groups with 95% of the current graduates and 93% of past graduates in agreement with the question posed. One stark difference in motivators between both groups is salary increase. Past graduates are less likely to agree that their motivation for a Ph.D. is to increase one's salary with 82% in agreement compared to 90% of current graduates in agreement.

Inquiry Question #2B "what percentage of the sample surveyed expressed an interest in pursuing a Ph.D.?"

To gauge the interest for a Ph.D., the sample group was posed with the following question from survey question #21, "would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?" As shown in Table 10, YES! and yes responses were merged to reflect the opinion of at least a "yes" (85%). No! and no were merged to reflect the opinion of at least a "no." The majority of the sample group expressed an interest in a Ph.D. in Sign Language Education with 15% indicating "no" to the question posed.

Table 10 Interest in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point (n=114)

Question	Yes %	No %
Q21. Would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?	85%	15%

Based on the established response rate of 24% and at least 50% of the sample group indicating an interest as discussed in Chapter 3, the threshold has been met.

5.0 Summary

This study focused on the viability of a Ph.D. in Sign Language Education program at Gallaudet University. There is a serious disparity between the supply of qualified sign language instructors and leaders, and the demand for ASL courses from 200+ ASL programs at all sectors of education across the United States. This presents a challenge. Internationally there are only two graduate programs from two higher education institutions, both in the United States, awarding graduate degrees in sign language pedagogy. To address the problem, Gallaudet University is proposed to be home to the world's first Ph.D. in Sign Language Education program in the emerging discipline of sign language pedagogy. The purpose of this study was to investigate the value, need and interest in the proposed program as a part of the overall feasibility study. This chapter summarizes the major findings and discussion of the themes that have emerged from Chapter 4: Research Results, as well as the implications and areas for future research.

5.1 Discussion of the Findings

In the context of the problem we face, the findings reveal that there is a strong consensus among the participants on the need, value and interest for a Ph.D. in Sign Language Education. The following discussion of findings analyzes the three areas, revealing a collective agreement in all three areas.

5.2 A Professional Need

The findings revealed that there is indeed a gap in hiring qualified candidates with an appropriate terminal degree in the sign language discipline. This is a consequence of the lack of any Ph.D. in sign language pedagogy program in existence. The participants conveyed that there is no comparable Ph.D. program to a Ph.D. in Sign Language Education. With a gap of qualified candidates in the face of the fastest-growing demand for language instruction, ASL, it is not surprising that we are facing a national hiring crisis. With the shortage of qualified sign language faculty, all levels of education are struggling with a limited pool of qualified candidates to draw from (Fox, 2010; LaSasso & Wilson, 2000).

Consequentially, the study confirmed that there is a professional need for a Ph.D. in Sign Language Education after a master in Sign Language Education. In the realm of higher education and the emerging discipline of sign language pedagogy, a master's degree is simply not sufficient. Participants believe that possessing a Ph.D. in Sign Language Education will afford them an opportunity in this field. When looking at what type of specialized knowledge is needed in this field, the study showed nearly no distinctions between academic teaching, administrative, and research-related jobs. A strong percentage of participants endorsed all three job areas. This is likely due to the participants' being cognizant of the fact that a Ph.D. is often a requisite to enter the academic ranks of a higher education institution. Ates, Brechelmacher, Campbell, and Park (2015) discussed that in order to start an academic career, having a Ph.D. is a common expectation of higher education institutions.

A major finding in this section is that participants overwhelmingly expressed a professional need for a Ph.D. in Sign Language Education program at Gallaudet University, anticipating that the need will only continue to increase in the next 10 years. Overall, there is a professional need

for a Ph.D. in Sign Language Education. In the same vein, the findings also revealed that value for a Ph.D. in Sign Language Education may increase in the next 10 years.

5.3 The Value of a Ph.D. in Sign Language Education

When the participants were presented with questions regarding value, strong endorsements were given across the board for different areas defining value. However, participants placed much more value on questions associated with job prospects. Interestingly, in this area two similar but distinct phenomena were observed. The participants were given two similar, but different questions. The first question inquired: would a Ph.D. in Sign Language Education provide value to a current or future job in the field of sign language pedagogy. The second question inquired: would a Ph.D. in Sign Language Education provide value to your current job or future job search. The key difference between these two questions is that the former is specific to the sign language pedagogy job field, and the latter is not specific to any one job field. The participants, especially past graduates, were less optimistic when presented with the scenario of a Ph.D. providing value to a job not specific to any one field (second question). This is likely reflective of the Deaf experience in actively searching for a job. The literature from Chapter 2 has similarly revealed that from 2008 – 2017 the employment rates for Deaf people have not increased and Deaf people are more likely to work as part-time employees (Cawthon et al., 2019). Additionally, Cooper's study also shows the same parallels to Cawthon et al. study regarding Deaf faculty. Cooper (2004) found that the ratio of full-time to part-time staff has remained the same since Cooper's last study in 1994; the sign language discipline continues to be predominantly part-time faculty. A Ph.D. in Sign Language Education is an uncharted territory, but ultimately the sentiments in this study are that employers would see value in candidates with a Ph.D. in Sign Language Education.

The ramification of not having a Ph.D. in sign language pedagogy from a program producing Deaf scholars is that the emerging discipline of sign language is unable to flourish without Deaf representation. The study has revealed that production of scholarship in the discipline is another area of value in a Ph.D. in Sign Language Education. Due to the fact that there is no Ph.D. program in sign language pedagogy, and that the discipline is relatively new, participants indicated that a Ph.D. in Sign Language Education would advance the scholarship of the sign language pedagogy discipline. Throughout the literature, it is also apparent that the discipline of sign language pedagogy is still very much in its infancy (Quinto-Pozos, 2011; Rosen, 2010; Rudser, 1998). This study is an embodiment of what is to come for the emerging discipline. The study indicates that a large group of aspiring scholars supports a paradigm shift in the scholarship of the sign language discipline, and that overall there is value in a Ph.D. in Sign Language Education.

5.4 Areas of Interest

A large group of participants enthusiastically indicated that they would be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at some point in the future, especially within 10 years. Interest is broad and covers multiple areas. In an effort to understand the participants' "interest", the study inquired about participants' interest in a Ph.D. by offering 3 potential motivators: to gain a faculty position, to enhance career advancement, and to increase salary. The study showed that gaining a faculty position and enhancing career advancement came

out as the top two motivators. The top two underlying motivators for interest in a Ph.D. in Sign Language Education are likely a result of two factors. One, the top two underlying motivator resonates with a professional need in that a Ph.D. is needed to create opportunities in a job market that is largely inaccessible to the deaf. Two, the interest in what a Ph.D. can do for one's career as a motivator over salary is reflective of one's priorities. This aligned with the literature on what leads one to this chosen field of study. Several studies revealed that one's interest to pursue a Ph.D. in the field of humanities is often tied to an intrinsic interest in research and academe (Bodner-Johnson & Martin, 1999; Jones, 2003; Skatova & Ferguson, 2014). These areas of interest and their underlying motivators are further reinforced by the fact that the participants believe a Ph.D. in Sign Language Education aligns with their career interests.

The literature in the realm of sign language pedagogy is sparse and while this document will serve to supplement the literature, more scholarship is needed in this area. Gallaudet University is in a prime moment to lead a new generation of interested scholars into the future by supporting the emerging, but long-awaited, discipline of sign language pedagogy. As Dr. Lawrence Fleischer said in 1986, "we must take responsibility for upgrading and bringing our standards in line with those of other teaching faculty" (Cogen, 1986, p. 186). To reiterate, the overall major finding revealed by this study is that there is a collective agreement on the value, need, and interest in a Ph.D. in Sign Language Education program at Gallaudet University.

5.5 Implications for Gallaudet University

With an unambiguous display of viability for the proposal, it is clear that this is an opportune moment for Gallaudet University. A Ph.D. in Sign Language Education program will

likely remediate the identified problem, a lack of graduate and terminal sign language pedagogy programs to prepare its graduates to address the disparity between the supply of qualified sign language instructors and leaders. As well as the demand for ASL courses from 200+ ASL programs at all sectors of education across the United States. However, this is not limited to ASL and the U.S., but to other signed languages around the world as well. Gallaudet University is ideally suited to offer such program, catering to the need and interest by offering value from the proposed program. Beyond serving as a change agent for an important aforementioned issue, the following are additional implications for Gallaudet University to consider in support of a Ph.D. in Sign Language Education program.

The sample group in this study consisted of approximately 35 students per cohort from 2011 – 2019. With this size, the threshold for a need and interest in a Ph.D. in Sign Language Education as established in chapter 3 has exceeded expectations. In a surprise move for the Summer of 2020, the MA-SLED program expanded nearly twofold by admitting its very first expanded cohort, with approximately 55 students. The projected number of future prospective students has an upward trajectory of nearly two times compared to 2011 – 2019. The implication for Gallaudet University is the pool of interested prospective students for a Ph.D. in Sign Language Education program has expanded. An NSF study has shown there is a high correlation of a student's continued field of study between their master and doctorate education. The humanities, only second to engineering by 0.03%, contain the highest number of continued studies in a related field throughout one's education (NSF, 2018). In addition to the expanded pool of prospective students, this study revealed that 99% of the sample group would recommend a Ph.D. in Sign Language Education to others. The current study revealed areas of interest may be best fostered

by understanding how to develop a Ph.D. in Sign Language Education program with a marketing strategy for this group.

The results from chapter 4 revealed that enhancing one's career advancement and gaining a faculty position were the top two underlying motivators of interest. This sample group may be divided into two groups: current graduates and past graduates. This is important in terms of marketing strategy. Data shows that the top two underlying motivators of interest differed for both groups. Past graduates showed a preference for a Ph.D. in Sign Language Education to enhance a career advancement. Current graduates showed a preference for a Ph.D. in Sign Language Education to gain a faculty position. While their motivations diverged, their opinions on what type of specialized knowledge a Ph.D. in Sign Language Education should impart paralleled. Current graduates and past graduates believe that a Ph.D. in Sign Language Education is a type of specialized knowledge needed for research-related jobs. The type of specialized knowledge needed for a current or future job coupled with the fact that the Deaf experience in actively searching for a job is a concern, as revealed in The Value in a Ph.D. in Sign Language Education section, should inform the development of the Ph.D. program. One implication for Gallaudet University in addressing this finding is that the Ph.D. program should consider mirroring two successful courses from the MA-SLED program, Seminar in Sign Language Education: Professional Preparation, and E-Portfolio. These courses prepare students for the academic sign language teaching job market by providing them with the tools needed to develop skillsets and materials to strategically navigate a job market that is otherwise generally closed-off to this specific population. Another implication as a result of building a research-based program is that it aligns with Gallaudet University's commitment to emerge as a research university.

As we know, there are no Ph.D. in sign language pedagogy programs and there is a large support base. Gallaudet University is the only university in the world with a bilingual mission in ASL and English that thoroughly understands how to cater to this target market. The findings reflect this assertion. The participants were posed with two questions: "are you actively searching for a Ph.D. program similar to a Ph.D. in Sign Language Education?" and "would you be interested in pursuing a Ph.D. in Sign Language Education at Gallaudet University at any point in the future?" The percentage of the participants responding yes to the two questions posed shot up from 61% to 85%, respectively. The competition Gallaudet University would face is next to none; an overwhelming majority of the participants indicated there are no comparable Ph.D. programs to Sign Language Education currently in existence.

Consequentially, the strong interest and need, as shown across the board in chapter 4, may create a sustainable program for the long run until the discipline matures and other universities follow suit. In the process, this program will produce scholars contributing to the now-sparse literature. Ninety-seven percent of the participants believe a Ph.D. in Sign Language Education would advance the scholarship of the sign language pedagogy discipline. Gallaudet University becoming a leader in sign language pedagogy research would advance the scholarship of the discipline. This may nurture Gallaudet University's endeavors to promote from the Research 2 Doctoral University classification from December 2018 by the Carnegie Classification of Institutions of Higher Education into a Research 1 Doctoral University classification. The advancement of the scholarship would also have a meaningful impact on giving Gallaudet University's Deaf Studies Digital Journal the jumpstart it needs to thrive.

5.6 Future Research

The literature on the world of sign language pedagogy is extremely limited. There is much that must be done in this area that would contribute to the future research of sign language pedagogy. Contributing to a growing body of sign language pedagogy would also support the emerging discipline. The following are future research recommendations that were identified as a result of this study.

While the literature on sign language pedagogy is extremely limited, the literature on multiple intersectionality of the Deaf community is next to none. The Deaf community is culturally and linguistically marginalized. However, additional identities such race, ethnicity, DeafBlind, LGBTQ, disabilities (Deaf plus), etc. are even lesser known. Incorporating marginalized identities in future research may inform future strategic planning for Ph.D. in sign language pedagogy programs and highlight issues that may need to be addressed. When examining intersectionality, research should be performed from an equitable social justice framework. As the findings in the literature have shown, Deaf people continue to face audist barriers to entering the workforce. While the following excerpt from chapter 2 refers to Deaf education teacher preparation programs, a discipline distinct from sign language pedagogy, this is reflective of an overarching crisis higher education faces with any Deaf-related fields such as sign language linguistics, Deaf studies, Deaf history, Deaf literature, and especially sign language pedagogy. Of the faculty that were hired for the teacher preparation programs, only 13% were deaf or hard-of-hearing (LaSasso & Wilson, 2000). Another study revealed that "doctoral-level leaders in deaf education are in short supply, especially those who are deaf and from multicultural backgrounds" (Andrews, 2003). The dearth of Deaf doctoral instructors and leaders in academia (as well as the general workforce) branches into another area of the same tree on a potential future research topic.

The findings have revealed that Deaf prospective students, especially past graduates, were less optimistic about a general job search. As no Ph.D. in sign language pedagogy programs exists, there are no literature on the job outcomes of sign language pedagogy graduates. The positive opinions expressed by the participants on the value of a Ph.D. in sign language pedagogy for employment and as I've suggested in chapter 2 based on the literature, "a Ph.D. in sign language pedagogy *may* be able to alleviate this barrier [for Deaf people] by opening a path to job prospects in the academe", are purely speculative. This remains to be seen as no data on the job outcomes of a Ph.D. in sign language pedagogy exists. When such program comes to fruition, there needs to be a longitudinal study on the job outcomes of Deaf graduates from a Ph.D. in sign language pedagogy program(s). Barriers to the workforce should not be the sole focus of the suggested study, but equitable hiring practices, comparative studies between deaf and hearing counterparts in terms of promotions/ranks, number of deaf doctorates in this field, as well as other important relevant themes should also be considered in this study.

It is also unclear if the participants' opinions in the areas of value and need in the context of academic jobs are informed by their past or current job experience in the academia, or merely a guesstimate. This is an area of future research. The current study collected the participant's demographics on educational credentials, age and hearing status. While 89% of the sample group are at least 27 years old, which is representative of a typical workforce age group, it does not supply information on one's job experience. This would be an important factor to further investigate in a future research to learn what informs their opinions in the areas of value and need.

Since there are no graduates of a Ph.D. in sign language pedagogy program, and the available sample group was limited to MA-SLED students for their knowledge in the discipline (UNCO's MA-TASL declined to participate in the study). As the principal investigator of this

study, I would be interested in a future study mirroring this study on the value, need, and interest of a Ph.D. in sign language pedagogy with a larger sample group not limited to MA-SLED. A larger sample group in the future would reflect the dynamic shifting opinions and priorities in a growing discipline, not limited to participants from the MA-SLED program. In addition to the quantitative approach this study undertook, a qualitative approach should also be included. This would provide the researcher with the ability to perform follow-up interviews on specific survey items for clarity and understanding of ambiguities that may arise from quantitative findings. Qualitative findings may also provide the future study with quotes to support quantitative findings. A larger scale study utilizing quantitative and qualitative approach would prove useful in shaping the direction of sign language pedagogy programs as value, need and interest may shift with an ever-changing world.

5.7 Conclusion

A Ph.D. in Sign Language Education is an uncharted territory, but if this study and the esteemed Master in Sign Language Education program at Gallaudet University is any indication, a Ph.D. in Sign Language Education Gallaudet would likely follow suit and elevate the status of sign languages around the world. The findings of this study culminate into one major finding, that there is a value, need and interest for a Ph.D. in Sign Language Education. Gallaudet University is internationally recognized as a world-renowned source of expertise and a national leader in sign language education, conferring advanced and terminal degrees with world-class professors in the realm of the sign language discipline. Offering a Ph.D. in Sign Language Education fulfills needs

and interests while creating a tremendous value for our stakeholders, the University and prospective students, and for the emerging discipline.

Appendix A Letter of Support to Gallaudet President

July 25, 2019

Dear President Cordano,

Approaching the end of our masters program, we, with some discussion among our 2018 cohort, learned that there may be something in the works in establishing this program and we wanted to write you a letter, letting you know that a good number of us are already interested and ready to push ourselves to the next level and pursue further education. We also understand that there are potential challenges in making this happen. We wanted to emphasize that it is very important that Gallaudet is the university to make this happen.

There is a doctorate program in Interpretation, Linguistics, Hearing, Speech and Language Sciences. Gallaudet is, of course, expected to be the place to study those fields because those disciplines fit naturally within the field for Deaf people and sign languages. Sure, these are such inspirations but we wanted to say that, even more inspiring, Gallaudet can and should be the place for doctorate program in sign language studies.

We believe that enrollment will not be a challenge because Gallaudet has already produced such a high quality set of graduates from the masters' program who would find this doctorate program appealing and enticiting to advance further in their field.

Among MASLED alumni, there is already a definite interest of advancing to the Ph.D level. We also believe that, with this opportunity, we will set a bar among the sign language professionals that, especially in the United States, that Sign Languages of the world deserves to be recognized as an exemplary field to be in and that there are so many opportunities for research, analysis, and advancement in sign language.

We seek for the establishment of Sign Language studies doctorate program at Gallaudet and we hope this is something Gallaudet can make happen in the near future.

Sincerely,	10.
Ali Faridi	J.#
Print Name	Signature
MATTHEW DAIGLE	Jan XQ
Print Name	Signature / A)/
Luilly Segundo	Tuel !
Print Name	Signature
Jessica Darvishin	1
Print Name	Signature

Hunta Williams	pp
Print Name	Signature
Kristi Dorris	(hand) The
Print Name	Signature
Christma Moreau	Chr
Print Name	Signature
RUTHIE JORDAN	Ruthe Il
Print Name	Signature
Dalton Etkie	Date &
Print Name	Signature
TROY Thompson	Ty /
Print Name	Signature
SHAWN HOWEL	South
Print Name	Signature
Trans Pobles	and the
Trene Robles Print Name	Signature
Krystle Conrad	Kusth Cel.
Print Name	Signature
Malinda Tran	Mel
Print Name	Signature
Mechelle Tarbox	Mekale
Print Name	Signature /
Valerie Huls	Walin the
Print Name	Signature
CHRIS, WARMACK	Ches K. Werelle
Print Name	Signature
mirs D. Johnson	ns. K
Print Name	Signature

Diane Gamache	(12 all marks
Print Name	Signature
Elayne Fife	lelayon to
Print Name	Signature
Janel Schmidt	Jenel Schief
The state of the s	70,000
Print Name	Signature
Zendren Mitchell	Cather mobile
Print Name	Signature
Cody Pedersen	Cody Phlower
Print Name	Signature
Michael Punham	
Print Name	Signature
Susanne McLaughlin	Susame Mclamphle
Print Name	Signature
Krishing Mandaparthi	
Print Name	Signature
DESIREE DUONG	di any
Print Name	Signature
Cody Movey	cas nevy
Print Name	Signature
Domencia Casertano	
Print Name	Signature
Leeza Williams	GUA
Print Name	Signature
Molly F. Poters	much Hite
Print Name	Signature
Nha Kim (YES!!!	WHAT LOSS
Print Name	Signature

9	
Lisa Goodwin	Pur land
Print Name	Şignature
Jordan Bamser	had on the
Print Name	Signature
James Ethanda	
Print Name	Signature
1 (/	Signature
You Kim	Simulation
Print Name	Signature
Jenna Synth	Jehren 1100
Print Name	Signature
ANAND RAJ	anand K
Print Name	Signature
Angel Cloud	Anget Coul
Print Name	Signature
Edica Mileu	heav XX
Print Name	Signature
Jadetioton	daditista
Print Name	Signature
Abdulrahman Alghamo.	Au
Print Name	Signature
I Wreser of from	Delrever Mornos
Print/Name	Signature
Sara K. Gray-Castro	Sanat Caract anto
Print Name	Signature distribution
lara La	() em/
Print Name Lagana	Signature
1)	10 -0 - 5
Print Name	Signature

2.477	0111
Falordo Avala	The late
Print Name	Signature
(000)	(a) (/0(h))
JULI KLAO	Alle S
Print Name	Signature
Ty 110°Sex	The Head
THE ST	Signature
Print'Name	Signature
Monica Deller	Montal
Print Name	Signature
	1241
Paige Howkins	Thyp Haus
Print Name	Signature
Clena Thomas	
Print Name	Signature
Marcos Aguilar	Quelit 1
Print Name	Signature
USA STANDARD TO THE CONTROL OF THE C	9000
Anisa Fredman	all
Print Name	Signature
Jennifer M Willey	1 en Dai Uttolitas
gennara nevinag	X Guorinicon 9
Print Name	Signature
Mothau) P. Anderson	WX Anold & Sin
Print Name	Signature
A	
Salatel tineda	XXXXX
Print Name	Signature

Appendix B Ph.D. in Sign Language Education Viability Survey Protocol

Demographics

PARTICIPANT SCREENING OUESTION

- 1. Which category do you belong to?
 - I am currently a sign language graduate student
 - I possess a sign language graduate degree
 - I possess a sign language graduate degree and I am currently a Ph.D. or Ed.D. student
 - Neither (choosing this question will disqualify the participant)
- 2. Please indicate which of the following age group you belong to
 - 18-26
 - 27-34
 - 35-44
 - 45-54
 - 55+
- 3. Do you identify as
 - Deaf (inclusive of all deaf and hard-of-hearing individuals)
 - Hearing

Unless indicated, the following questions are in **general.** When responding to the following questions, please think in terms of the generality of the situation posed, and not necessarily how it would apply to you personally.

A Need & Value

- 4. Is there a comparable Ph.D. program to Sign Language Education currently in existence?
 - Yes
 - No
- 5. Is there a need for a Ph.D. in Sign Language Education after a master in teaching sign language degree?
 - YES!
 - yes
 - no
 - NO!

 6. Do you believe that possessing a Ph.D. in Sign Language Education will create opportunities for graduates in the field of sign language pedagogy? YES! yes no NO!
 7. Is there a gap in hiring qualified candidates with an appropriate terminal degree in the sign language discipline? YES! yes no NO!
 8. Would a Ph.D. in Sign Language Education provide value to a current or future job in the field of sign language pedagogy? YES! yes no NO!
9. Is a Ph.D. in Sign Language Education a specialized knowledge needed for academic

10. Do you believe a Ph.D. in Sign Language Education as a specialized knowledge is needed for academic administrative jobs?

• YES!

teaching jobs?
YES!
yes
no
NO!

- yes
- no
- NO!

11. Is a Ph.D. in Sign Language Education degree a type of specialized knowledge needed for research-related jobs?

- YES!
- yes
- no
- NO!

12. Would a Ph.D. in Sign Language Education advance the scholarship of the sign language
pedagogy discipline?
• YES!
• yes
• no
• NO!
12 Would ampleyers see value in condidates with a Dh.D. in Sign Language Education?

13. Would employers see value in candidates with a Ph.D. in Sign Language Education?

- YES!
- yes
- no
- NO!

14. Do you believe the value and need for a Ph.D. in Sign Language Education may increase within the next 10 years?

- YES!
- yes
- no
- NO!

15. Overall, do you think there is a need for a Ph.D. in Sign Language Education?

- YES!
- yes
- no
- NO!

16. Overall, do you think there is value in a Ph.D. in Sign Language Education?

- YES!
- yes
- no
- NO!

The following questions seeks to learn about your interests. When responding to the following questions, please think in terms of how the questions would apply to **you** personally.

An Interest

17. Would a Ph.D. in Sign Language Education provide value to your current job or future job search?

- YES!
- yes
- no

YES!
yes no
NO!
oes a Ph.D. in Sign Language Education align with your career interest?
YES!
yes
no NOI
NO!
re you actively searching for a Ph.D. program similar to a Ph.D. in Sign Language ducation?
Yes No
Yould you be interested in pursuing a Ph.D. in Sign Language Education at Gallaud niversity at any point in the future? YES! yes
no
NO!
participant answered YES! or yes to 21, answer additional questions 22, 23, 24, &
your motivation for a Ph.D. to gain a faculty position at any levels of education? YES!
yes
no
NO!
your motivation for a Ph.D. to enhance career advancement?
YESI
YES!
yes no

- yes
- no
- NO!

25. Would you pursue a Ph.D. in Sign Language Education within the next 10 years?

- YES!
- yes
- no
- NO!

If participant answered NO! or no to 21, skip additional questions 22, 23, 24, & 25.

- 26. Would you recommend a Ph.D. in Sign Language Education to others?
 - YES!
 - yes
 - no
 - NO!
- 27. Should a Ph.D. in Sign Language Education be implemented at Gallaudet University?
 - Yes
 - No

Appendix C Email Introductory Script



Follow the link for a YouTube version! https://youtu.be/aV_SQklveNI

Greetings!

You have been identified as a potential survey participant for an important research study regarding a proposal for a Ph.D. in Sign Language Education program at Gallaudet University. The principal investigator of this study is interested in learning about your interests regarding this program. I invite you to let us know about your interests and the need for this program by clicking on the link below.

Your participation in the survey is completely voluntarily. You may stop the survey at any time. By entering the survey, you consent to the principal investigator collecting non-identifiable data. If you have any questions or concerns, you may contact the principal investigator at the information provided below.

Thank you,

Kenneth De Haan 412-218-1911 (VP) Kenneth.De.Haan@gallaudet.edu

Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser: https://pitt.co1.qualtrics.com/jfe/form/SV d5YysJ1qQFoEUAt?Q DL=0kqC4LfiBKIBScd d5YysJ1qQF oEUAt MLRP_8bR3qMMRJmIU9Mx&Q_CHL=email

Follow the link to opt out of future emails: Click here to unsubscribe

Bibliography

- Acemoglu, D., Autor, D. (2011). *Lectures in labor economics*. Manuscript, Department of Economics, Massachusetts Institute of Technology, Boston, Massachusetts. Retrieved from https://economics.mit.edu/files/4689
- Alperin, J. P., Schimanski, L. A. (2018). The evaluation of scholarship in academic promotion and tenure processes: Past, present, and future. *F1000Research*, 7, 1605. doi:10.12688/f1000research.16493.1
- American Councils for International Education (2017, June). *The national K-12 foreign language* enrollment survey report. Retrieved from https://www.americancouncils.org/sites/default/files/FLE-report-June17.pdf
- Andrews, J. F. (2003). Benefits of an Ed.D. program in Deaf education: A survey. *American Annals of the Deaf, 148*(3), 259-66. Retrieved from doi:http://dx.doi.org/10.1353/aad.2003.0015
- Andrews, J. F., Jordan, D. (1993). Minority [Deaf] and minority-deaf professional: How many and where are they? *American Annals of the Deaf*, 138 (5), 388-396. Retrieved from https://muse.jhu.edu/article/384775/pdf
- Ates G., Brechelmacher A., Campbell D.F.J., Park E. (2015) The rocky road to tenure career paths in academia. In Fumasoli T., Goastellec G., Kehm B. (Eds.) *Academic work and careers in Europe: Trends, challenges, perspectives. The changing academy The changing academic profession in international comparative perspective*, vol 12. Springer, Cham.
- Bodner-Johnson, B., Martin, D. (1999). Teacher educators in Deaf Education: Why they entered higher education and their current priorities and accomplishments. *American Annals of the Deaf*, 144(3), 236–241. Retrieved from http://muse.jhu.edu/journals/american_annals_of-the-deaf/v144/144.3.bodner-johnson.html
- Carey, K. (2004, May). A matter of degrees: Improving graduation rates in four-year colleges and universities Report by the Education Trust. Retrieved from https://edtrust.org/wp-content/uploads/2013/10/highered.pdf
- Cawthon, S., Garberoglio, C. L., Palmer, J. L., Sales, A. (2019). Deaf people and employment in the United States: 2019. *National Deaf Center on Postsecondary Outcomes*. Retrieved from https://www.nationaldeafcenter.org/sites/default/files/Deaf%20People%20and%20Employment%20in%20the%20United%20States_%202019%20%287.26.19%29%28ENGLISH%29%28WEB%29.pdf

- Chang, W., Milan, L. (2016, July). Employment decisions of U.S. and foreign doctoral graduates: A comparative study. Info Brief NSF 15-302. Arlington, VA. Retrieved from www.nsf.gov/statistics/2015/nsf15302/nsf15302.pdf
- Clary, W. M., Jr. (2004, August). *American Sign Language as a high school language elective:* Factors influencing its adoption (Order No. 3145184). Available from ProQuest Dissertations & Theses Global. (305123882). Retrieved from https://search.proquest.com/docview/305123882?accountid=14709
- Cogen, C. (1986). Making a case for ASL to satisfy college foreign language requirements: A panel discussion. In C. Padden (ed.), *National Symposium on Sign Language Research and Teaching IV*. Silver Spring, MD: National Association of the Deaf.
- Cooper, S. B. (1997). The academic status of sign language programs in institutions of higher education in the united states. Retrieved from citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.523.9870&rep=rep1&type=pdf
- Cooper, S.B., Reisman, J.I., Watson, D. (2008). The status of sign language instruction in institutions of higher education: 1994-2004. *American Annals of the Deaf* 153(1), 78-88. doi:10.1353/aad.0.0001.
- Crawford, S. D., Couper, M. P., & Lamias, M. J. (2001). Web surveys: Perceptions of burden. *Social Science Computer Review*, 19(2), 146-162. https://doi.org/10.1177/089443930101900202
- Cross, F. (2016, August). *Teacher shortage areas nationwide listing 1990–1991 through 2016–2017, August 2016.* Retrieved from https://www2.ed.gov/about/offices/list/ope/pol/tsa.pdf
- Dulock, H. L. (1993). Research design: Descriptive research. *Journal of Pediatric Oncology Nursing*, 10(4), 154–157. https://doi.org/10.1177/104345429301000406
- English, D., Umbach, P. D. (2016). Graduate school choice: An examination of individual and institutional effects. *Review of Higher Education*, 39(2), 173-211. Retrieved from http://pitt.idm.oclc.org/login?url=https://search-proquest-com.pitt.idm.oclc.org/docview/1749657270?accountid=14709
- Fitzsimons, P. (2017). Human capital theory and education. In Peters, M.A. (Eds.) *Encyclopedia of Educational Philosophy and Theory*. Springer, Singapore
- Fowler, F. J. (2014). Survey research methods. Thousand Oaks: Sage Publications.
- Fox, A. L. C. (2010). *Teacher certification of American Sign Language faculty at K-12 and higher education institutions* (Order No. 3437632). Available from ProQuest Dissertations & Theses Global. (822457397). Retrieved from http://proxyga.wrlc.org/login?url=https://search.proquest.com/docview/822457397?accountid=27346

- Gallaudet University (2016). Annual report of achievements, October 1, 2015 September 30,2016, FISCAL YEAR 2016. Retrieved from http://www.gallaudet.edu/Documents/Academic-Affairs/Annual-Reports/annual-report-FY2016-2.pdf
- Gallaudet University (2019a). Fast facts. Retrieved from https://www.gallaudet.edu/about/news-and-media/fast-facts
- Gallaudet University (2019b). *New Program Review Process and Forms*. Retrieved from https://www.gallaudet.edu/accreditation-certification-and-licensure/new-program-review-process-and-forms
- Gillies, D. (2011). State education as high-yield investment: Human capital theory in European policy discourse. *Journal of Pedagogy/Pedagogický Casopis*, 2(2), 224-245. Retrieved from https://www.degruyter.com/downloadpdf/j/jped.2011.2.issue-2/v10159-011-0011-3/v10159-011-0011-3.pdf
- Goldberg, G., Looney, D., Lusin, N. (2015, February). *Enrollments in languages other than English in United States institutions of higher education, Fall 2013*. Retrieved from mla.org/content/download/31180/1452509/EMB enrllmnts nonEngl 2013.pdf
- Harris, R. L., Thibodeau, R. (2016). Sign language teaching: Training. In P. Boudreault & G. Gertz (Eds.), *The Deaf Studies Encyclopedia*. Thousand Oaks, CA: Sage Publications.
- Henner, J., Robinson, O. (2018) Authentic voices, authentic encounters: Cripping the university through American Sign Language. *Disability Studies Quarterly, Vol. 38, No. 3.* Retrieved from http://dsq-sds.org/article/view/6111/5128
- Jones, E. (2003). Beyond supply and demand: Assessing the Ph.D. job market. *Occupational Outlook Quarterly*, 46(4), 22-33.
- Kwak, N., & Radler, B. T. (2000, May). *Using the Web for public opinion research: A comparative analysis between data collected via mail and the Web.* Paper presented at the annual meeting of the American Association for Public Opinion Research, Portland, OR. Retrieved from http://barold.com/www/JOS%20article.pdf
- LaSasso, C., Wilson, A. (2000). Results of two national surveys of leadership personnel needs in Deaf education. *American Annals of the Deaf, 145*, 429-435. Retrieved from https://muse.jhu.edu/article/384064/pdf
- Lattuca, L. R., Stark, J. S. (2009). Shaping the college curriculum: Academic plans in context. San Francisco, CA: Jossey-Bass.
- Lusin, N. (2019, June 21). Preliminary Report on the MLA Job Information List, 2017-18. *The Trend*. Retrieved from https://mlaresearch.mla.hcommons.org/2019/06/21 /preliminary-report-on-the-mla-job-information-list-2017-18/
- Ma, J., Pender, M., Welch, M. (2016, December). Education pays: The benefits of higher education for individuals and society. Washington, D. C.: College Board.

- Medlin, C., Roy, S., & Ham Chai, T. (1999). World Wide Web versus mail surveys: A comparison and report. Paper presented at ANZMAC99 Conference: Marketing in the Third Millennium, Sydney, Australia. Retrieved from http://hdl.handle.net/2440/61629
- Mertens, D. M. (2010). *Research and evaluation in education and psychology*. Thousand Oaks, CA: SAGE Publications, Inc.
- Modern Language Association (n.d.). *Benefits of language learning*. Retrieved from https://www.mla.org/content/download/60860/1861060/Language-Learning-Infographic.pdf
- Modern Language Association. (2017, December). Report on the MLA Job Information List, 2016-17. *MLA Office of Research*. Retrieved from https://www.mla.org/content/download/78816/2172744/Report-MLA-JIL-2016-17.pdf
- Modern Language Association. (2018, August). The career paths of Modern Language Ph.D.s: Findings from the 2017 MLA Survey of Doctoral Program Graduates. *MLA Office of Research*. Retrieved from https://www.mla.org/content/download/99761/2283567/Survey-of-Ph.D.-Recipients-2017.pdf
- Morelon-Quainoo, C., Johnson, S. D., Winkle-Wagner, R., Kuykendall, J. A., Ingram, T. N., Carter, G. D.,... Santiague, L. (2011). The advanced-degree pipeline for graduate and professional students of color. In D.E. Heller, K.M. Shaw, M. F. Howard-Hamilton, C. L. Morelon-Quainoo, S.D. Johnson, R. Winkle-Wagner, L. Santiague, & R. L. Pope (Eds.) Standing on the outside looking in: Underrepresented students' experiences in advanced degree programs (pp. 5-24). Sterling, VA: Stylus Publishing, LLC.
- Morelon-Quainoo, C., Johnson, S. D., Winkle-Wagner, R., Kuykendall, J. A., Ingram, T. N., Carter, G. D.,...Smith, D. G. (2009). The advanced-degree pipeline for graduate and professional students of color. In M. F. Howard-Hamilton, C. L. Morelon-Quainoo, S.D. Johnson, R. Winkle-Wagner, & L. Santiague (Eds.) *Standing on the outside looking in: Underrepresented students' experiences in advanced degree programs* (pp. 5-24). Sterling, VA: Stylus Publishing, LLC.
- Nardi, P. M. (2018). *Doing survey research: A guide to quantitative methods* (third edition). Boulder, CO: Paradigm Publishers.
- National Science Foundation, National Center for Science and Engineering Statistics. (2018). *Doctorate Recipients from U.S. Universities: 2017.* Special Report NSF 19-301. Alexandria, VA. Retrieved from https://ncses.nsf.gov/pubs/nsf19301/
- O'Connell, M. E., Norwood, J. L., National Research Council (U.S.). Committee to Review the Title VI and Fulbright-Hays International Education Programs, Division of Behavioral and Social Sciences and Education, Committee to Review the Title VI and Fulbright-Hays International Education Programs, National Research Council, . . . National Academies, National Research Council. (2007). International education and foreign languages: Keys to securing America's future. Washington, D.C: National Academies Press. doi:10.17226/11841

- Okahana, H., Kinoshita, T. (2018, October). *Closing gaps in our knowledge of Ph.D. career pathways: How well did a Humanities Ph.D. prepare them?* Retrieved from https://cgsnet.org/ckfinder/userfiles/files/Career%20Pathways%20Research%20Brief%2010-18-2018.pdf
- Oldham, C. A., Spellings, M. (2008, August). Enhancing foreign language proficiency in the United States: Preliminary results of the National Security Language Initiative. Retrieved from https://nsep.gov/sites/default/files/nsli-preliminary-results.pdf
- Paolo, A. M., Bonaminio, G. A., Gibson, C., Partridge, T., & Kallail, K. (2000). Response rate comparisons of E-mail- and mail-distributed student evaluations. Teaching and Learning in Medicine, 12(2), 81-84. http://dx.doi.org/10.1207/S15328015TLM1202 4
- Patten, M. L. (2005). *Understanding research methods: An overview of the essentials*. Glendale, Calif: Pyrczak Pub.
- Paulsen, M. B., Toutkoushian, R. K. (2008). Economic models and policy analysis in higher education: A diagrammatic exposition. In J. C. Smart (Ed.) *Higher Education: Handbook of Theory and Research*, vol. XXIII, pp. 1-48. The Netherlands: Springer. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.512.1800&rep=rep1&type=pdf
- Perna, L. W. (2004). Understanding the decision to enroll in graduate school: Sex and racial/ethnic group differences. *The Journal of Higher Education*, 75(5), 487-527.
- Quinto-Pozos, D. (2011). Teaching American Sign Language to Hearing Adult Learners. *Annual Review of Applied Linguistics*, 31, 137-158. doi:10.1017/S0267190511000195
- Rosen, R. S. (2008). American Sign Language as a foreign language in U.S. high schools: State of the art. *The Modern Language Journal*, 92: 10-38. doi:10.1111/j.1540-4781.2008.00684.x
- Rosen, R.S. (2010). American Sign Language Curricula: A Review. *Sign Language Studies 10*(3), 348-381. doi:10.1353/sls.0.0050.
- Rowley, A. J. (2014). American Sign Language advanced studies programs: Implementation procedures and identifying empowering practices. Retrieved from dc.uwm.edu/etd/641
- Rudser, S. F. (1988). Sign language instruction and its implications for the Deaf. In Strong, M. (Ed.), *Language learning and deafness* (pp. 99-113). Cambridge: Cambridge University Press.
- Schmidt, W.C. (1997). World-wide web survey research: Benefits, potential problems, and solutions. *Behavior Research Methods, Instruments, & Computers*. Volume 29, Issue 2. https://doi.org/10.3758/BF03204826
- Seltzer, B. (2018). One hundred job ads from the humanities ecosystem. *MLA Profession*. Retrieved from https://profession.mla.org/one-hundred-job-ads-from-the-humanities-ecosystem/

- Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), 749-752.
- Skatova, A., Ferguson, E. (2014). Why do different people choose different university degrees? Motivation and the choice of degree. *Frontiers in Psychology*, 5, 1244. doi:10.3389/fpsyg.2014.01244
- Slegers, C. (2010). Signs of change: Contemporary attitudes to Australian Sign Language. *Australian Review of Applied Linguistics* 33 (1), p.5.1–p.5.20. DOI: 10.2104/aral1005
- Stern, M. J. (2008). The use of client-side paradata in analyzing the effects of visual layout on changing responses in web surveys. Field methods, 20(4), 377–398. https://doi.org/10.1177/1525822X08320421
- Stokoe, William. (2005). In K. Brown, A. H. Anderson, L. Bauer, M. Berns, G. Hirst, & J. Miller (Eds.), *Encyclopedia of Language & Linguistics* (2nd ed., Vol. 12, p. 157). Amsterdam, The Netherlands: Elsevier. Retrieved from https://link.gale.com/apps/doc/CX3032502429/GVRL?u=wash75104&sid=GVRL&xid=658081cf
- U.S. Bureau of Labor Statistics (2018, April 13). Postsecondary teachers. *Occupational Outlook Handbook*. Retrieved from https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-6
- U.S. Bureau of Labor Statistics (2019, September 04). Unemployment rates and earnings by educational attainment. *Employment Projections*. Retrieved from https://www.bls.gov/emp/chart-unemployment-earnings-education.htm
- U.S. Department of Education, National Center for Education Statistics. (2017, August). Bachelor's, master's, and doctor's degrees conferred by postsecondary institutions, by sex of student and discipline division: 2015-16. *Digest of Education Statistics*. Retrieved from https://nces.ed.gov/programs/digest/d17/tables/dt17_318.30.asp
- U.S. Department of Education, National Center for Education Statistics. (2018, August). Master's degrees conferred by postsecondary institutions, by field of study: Selected years, 1970-71 through 2016-17. *Digest of Education Statistics*. Retrieved from https://nces.ed.gov/programs/digest/d18/tables/dt18_323.10.asp?current=yes
- U.S. News (2019). *Best colleges ranking: Overview*. Retrieved from https://www.usnews.com/best-colleges/gallaudet-university-1443
- Wright, C. (2018). *Choose wisely: A study of college major choice and major switching behavior*. Retrieved from https://doi.org/10.7249/RGSD414
- Wright, K. B. (2005, April 1). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services, journal of computer-mediated communication. Volume 10, Issue 3, JCMC1034. https://doi.org/10.1111/j.1083-6101.2005.tb00259.x