

ABSTRACT

The Role of Parental Involvement in Deaf Education on Childhood Emotional Development; a Survey of Achievement Related Attributions and Ability Mindsets of Deaf HS Graduates

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Research confirms that parental involvement is one of the most reliable predictors of student academic achievement, future success, language development, and parent expectations. There is little research done, however, on the effects of parental involvement in Deaf education, which poses a unique case because over 90% of Deaf children are born to hearing parents, and under 10% of those parents learn ASL. This study focuses on parental involvement's correlation to students' ability mindsets and achievement-related attributions, features of middle childhood emotional development. In this mixed-methods study, Deaf graduates were surveyed about their communication and relationship with their parents, parents' involvement in their education, achievement and failure attributions, and ability mindsets. The purpose of this research is to help educators and parents understand the importance of parental involvement and the benefits of outreach programs. Results showed significant correlations between parental involvement and both growth mindset about ability and relationship with parents.

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CHILDHOOD EMOTIONAL DEVELOPMENT; A SURVEY OF ACHIEVEMENT
RELATED ATTRIBUTIONS AND ABILITY MINDSETS OF DEAF HS
GRADUATES

A Thesis Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the Requirements for the
Honors Program

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May 2023

TABLE OF CONTENTS

List of Figures	iii
List of Tables	iv
Preface	v
Acknowledgments	vi
Dedication	vii
Epigraph	viii
Chapter One: Literature in Review	1
Chapter Two: The Parents' Role in Childhood Emotional Development	11
Chapter Three: History of Deaf Education in America	18
Chapter Four: Research Questions and Methods	28
Chapter Five: Research Results: Quantitative Data Report	32
Chapter Six: Analysis and Trends	43
Chapter Seven: Conclusions	57
Appendix	63
Bibliography	71

LIST OF FIGURES

Figure One: Hoover-Dempsey and Sandler's Model of Parental Involvement	4
Figure Two: Hoover Dempsey and Sandler's Strategies to Increase Schools' Capacities for Inviting Parental Involvement	10
Figure Three: Anonymous Excerpts from the Short-Answer Responses	53

LIST OF TABLES

Table One: Questions 1-8 Report Table	33
Table Two: Questions 9-10 Report Tables	36
Table Three: Questions 11-12 Report Table	37
Table Four: Questions 13.1-11 Report Tables	39
Table Five: Regression Analysis Report Tables for All Question Combinations	40
Table Six: Statistically Significant Regression Analysis Report Table	41

PREFACE

The following thesis has been written to satisfy the program requirements of the Honors Program in pursuit of my Bachelor of Science in Communication Sciences and Disorders with a concentration in Deaf Education at Baylor University. I began the process in January of 2021 with a literature study, writing the first 4 chapters of the project by April of 2022. I then proceeded to the research portion of the project, focusing on recruitment, the questionnaire, and statistical analysis for 9 months, completing the project in January of 2023.

As a college sophomore studying education, American Sign Language, Deaf culture, speech pathology, philosophy, and special education, all spun together into an undergraduate program, I had dipped my toes in many areas of academic interest that I was curious to explore further. However, it did not take long for me to notice that parental involvement was a topic that could not be left unmentioned by my professors in any discipline. It was clear to me from the beginning that our upbringing impacts every area of our life in a way that deserve further investigation. There are many important moving parts to consider daily in the field of education, however, my hope for this research is that it will inspire educators to push parental involvement up the priority list.

Throughout my research, I have learned much about the Creator, His unmatched love for His children, and how to be a better steward of the gifts He has given me.

Kyleah Druhan

Waco, February 26, 2023

ACKNOWLEDGMENTS

I would like to express my deepest gratitude, first, to my Thesis Advisor Dr. Lewis Lummer for his mentorship, patience, feedback, and encouragement over the last 4 years. His research in Deaf education and his guidance in my own studies were inspiration and invaluable to my work. This project also could not have happened without the support of my Honors College advisors and peers who were beside me every step of the way. Additionally, I would like to extend special thanks to Dr. James Stamey for his generosity in sharing his time and expertise in statistical science.

Finally, I would be remiss not to thank my family and loved ones for their ongoing encouragement, nagging, and emotional support, without which I would never have made it to this point.

DEDICATION

This thesis is dedicated to the members of the Deaf community who participated in my study. Each of your stories is an invaluable gift to me as I begin my teaching career.

EPIGRAPH

“As for me, I would seek God, and to God would I commit my cause, who does great things and unsearchable, marvelous things without number” Job 5:8-9

CHAPTER ONE

Literature in Review

Parental Involvement Overview

As students grow up, they spend eight hours a day, five days a week, 40 weeks a year at school with their teachers and peers. They make friends, learn, and develop physically, cognitively, and socio-emotionally. Usually, as this growth is happening, the students' parents go to and from work, bring their student home, and observe the changes that are taking place in their little ones' lives for just a few hours every day. Some parents invest a lot of time and energy into their child's education by involving themselves at the school, some spend their time at home reviewing and contributing to their child's learning, and some devote their time together to other aspects of family life and parenting. Every family is different, and there is no one size fits all for the role a parent plays in their child's life and education, however, there is a large collection of research that demonstrates that parental involvement in education is the number one predictor of students' academic success. Other research also suggests that socio-emotional development is strongly linked to academic outcomes¹. Therefore, research that explores and analyzes the impact of parental involvement on socio-emotional development is

¹ Kusche, C. A., & Greenberg, M. T. (1993). The PATHS (Promoting Alternative Thinking Strategies) Curriculum. Deerfield, MA: Channing-Bete Company.; Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (2005). Why Do Parents Become Involved? Research Findings and Implications. *The Elementary School Journal*, 106(2), 105–130. <https://doi.org/10.1086/499194>

equally important to pursue and consider as schools design family engagement programs and parent outreach initiatives.

Many scholars have researched the factors that influence parental involvement in education, and it is important to review their findings before studying how these factors can affect other outcomes of child development. In this chapter, I plan to review existing literature surrounding the topic of parental involvement, including research on its direct impact on education outcomes, as well as proven factors of motivation for involvement.

Involvement's Impact

Calderon² examines in her study the impact parental involvement might have on a Deaf student's language, reading, and socio-emotional development. Her study shows just how important a parent's role is as a predictor of child success in these three areas. Calderon's research confirms that parental involvement is a significant contributor to academic outcomes, however it also demonstrated that "Maternal communication skill proved to be a more significant indicator for both language development, early reading skills, and social-emotional development." The researcher explains that when mothers have more developed communication skills in the child's language, they may be more comfortable pursuing involvement in the school environment. Among students with hearing loss, the students whose mothers demonstrated higher communication skills had higher reading scores and less behavior problems. A mother's communication level does not directly predict in-school parental involvement, however, the researcher postulates that in order for a parent to develop the language skills for a common language between

² Calderon, R. (2000). Parental involvement in deaf children's education programs as a predictor of child's language, early reading, and social-emotional development. *Journal of Deaf Studies and Deaf Education*, 5(2), 140–155. <https://doi.org/10.1093/deafed/5.2.140>

parent and child that is new to the parent, such as sign language, a parent would have to put in a significant amount of work and would likely be quite involved.

Motivations for Parental Involvement: The Hoover Dempsey and Sandler Model

Hoover-Dempsey and Sandler's extensive research on parental involvement in many educational settings gives us a model to understand the motivating factors of a parent's decision to become involved in the school setting and how their involvement might impact the student's success (See Figure 1)³. Their 2005 study on why parents become involved once again confirms that parental involvement has been linked to at least three areas of student success: student achievement (grades, competence, and test scores), school success (graduation/dropout rates, pursuing AP courses), and the development of psychological processes that support achievement (efficacy for learning, personal control over school outcomes, self-regulation of knowledge, and engagement/beliefs). In their model of motivations for parental involvement, they identify three main areas of motivation that contribute to a parent's decision to become involved: motivational beliefs, perceptions of invitation to involvement, and parental life context variables. In this chapter, I plan to analyze the accuracy of this model by reviewing other literature that supports the impact these factors have on parental involvement in education.

³ Fishman, C., & Nickerson, A. (2014). Motivations for Involvement: A Preliminary Investigation of Parents of Students with Disabilities. *Journal of Child and Family Studies*, 24. <https://doi.org/10.1007/s10826-013-9865-4>

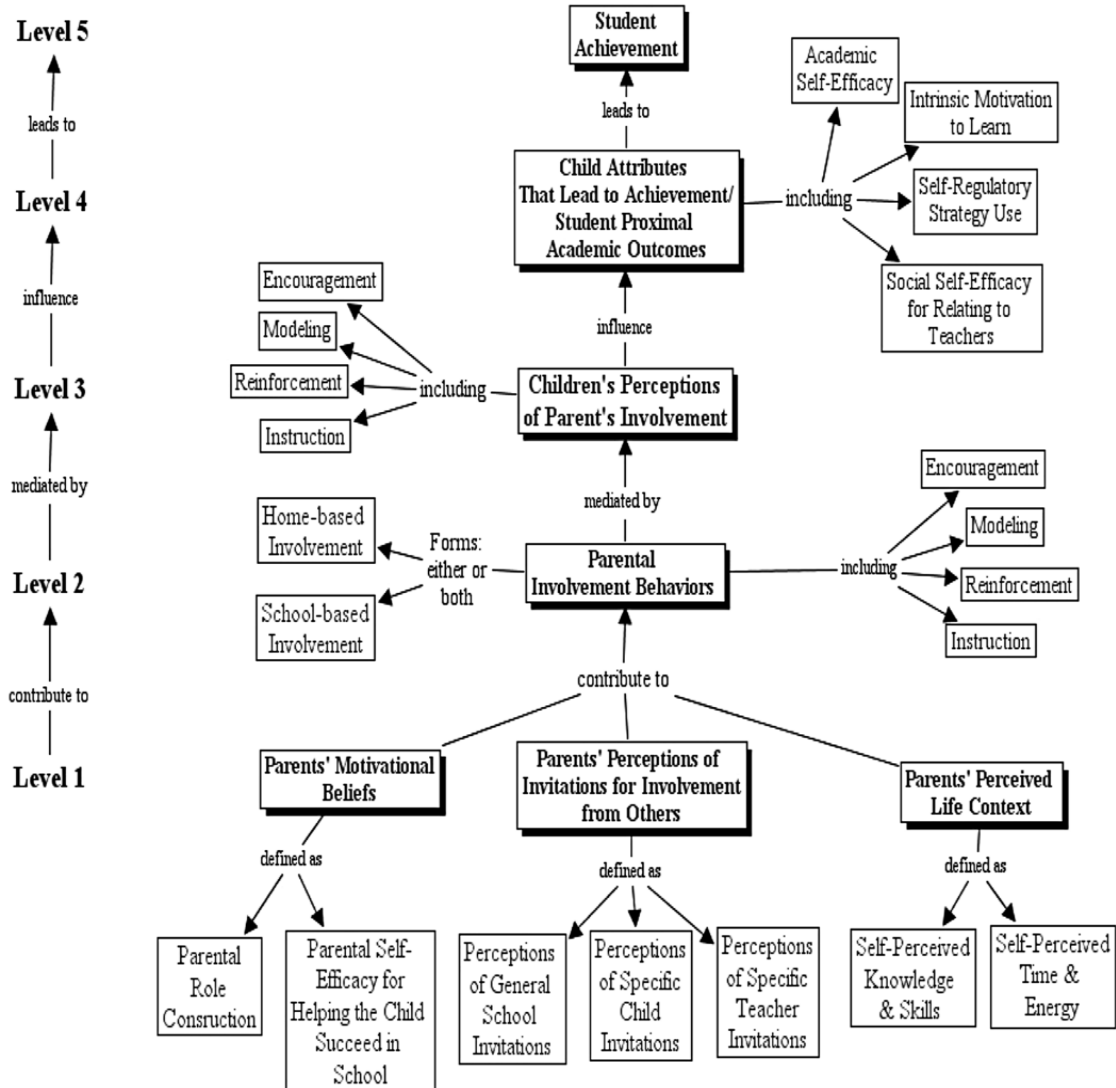


Figure 1: Hoover-Dempsey and Sandler's (2005) Model of Parental Involvement (Fishman & Nickerson, 2014)

The first of these areas focuses on motivational beliefs such as active role construction and positive efficacy for helping children learn. Role construction refers to the parents' beliefs that they should be involved in their child's education. A parent's perception of their role is influenced by their understanding of child development, their beliefs about child-rearing, and their beliefs about their role in educating their child at home. This factor is also constructed socially, as it is easily influenced by the

expectations of other significant people and groups in the parent's life as well as their own schooling experience. This means that their mindsets can be changed from active to inactive role construction or vice versa. Gonzalez and Chrispeels⁴ demonstrated that for Latino parents the strongest predictor of involvement was parental role construction and that their involvement increased after participation in a parent education intervention program. This research and others show that role construction is a significant factor across settings, schools, and cultural groups. Self-efficacy refers to the parent's belief that they can have a significant impact on their child's learning and academic success. In a previous study, Hoover-Dempsey and Sandler noted that low parental self-efficacy is also associated with less perseverance in the face of challenges to involvement⁵. This factor, like role construction, is also socially constructed. Bandura (1989, 1997) lists four social factors of personal experience that influence beliefs of self-efficacy: personal mastery experiences, vicarious persuasion (observing others succeed), verbal persuasion (encouragement from others), psychological arousal (considering importance of goals and ability to succeed)⁶.

The next factor of the Hoover-Dempsey and Sandler model notes as a significant motivating factor of why parents become involved is the perception of being invited to

⁴ Chrispeels, J., & González, M. (n.d.). *Do Educational Programs Increase Parents' Practices at Home?: Factors Influencing Latino Parent Involvement / Browse Our Publications / Publications & Resources / HFRP - Harvard Family Research Project*. Retrieved January 12, 2023, from <https://archive.globalfrp.org/publications-resources/browse-our-publications/do-educational-programs-increase-parents-practices-at-home-factors-influencing-latino-parent-involvement>

⁵ Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why Do Parents Become Involved in Their Children's Education? Review of Educational Research, 67(1), 3–42. <https://doi.org/10.3102/00346543067001003>

⁶ Bandura, A. (1997). Self-efficacy: The exercise of control. W H Freeman/Times Books/ Henry Holt & Co.

involvement from the school, teacher, and their student. Invitations such as these send the message that the parents' involvement in their child's schooling is "welcomed, valued, and expected." In the researchers' review of factors that impact the effectiveness of these invitations and research by Comer and Haynes (1991)⁷, school climate towards parental involvement was identified as a key factor of at-school involvement. Further, in a study on parental involvement in special education specifically⁸, parents were less inclined to be involved in their child's education at home when the school climate was welcoming, communicative, and informative. These results, like the Calderon results, seem counterintuitive, but researchers suggest that parents feel more motivated to step in to provide supplemental education when the school exhibits poor communication. Another possible explanation may be that invitations for parental involvement from the school to all parents may be ineffective in recruiting the involvement of parents of students in special education due to a perceived lack of applicability to that specific population. The same study by Fishman and Nickerson (2014) concluded that direct invitations from teachers were most effective in encouraging parental involvement in meetings, educational planning, and reciprocal communication. A study done by Balli et al. (1998, 1999)⁹ found that when a group of parents were invited by both the teacher and the student for specific involvement, the completion rates reached 90%, as compared to 51%

⁷ Comer, J. P., & Haynes, N. M. (1991). Parent involvement in schools: An ecological approach. *The Elementary School Journal*, 91, 271–277. <https://doi.org/10.1086/461654>

⁸ Fishman, C., & Nickerson, A. (2014). Motivations for Involvement: A Preliminary Investigation of Parents of Students with Disabilities. *Journal of Child and Family Studies*, 24. <https://doi.org/10.1007/s10826-013-9865-4>

⁹ Balli, S. J., Demo, D. H., & Wedman, J. F. (1998). Family involvement with children's homework: An intervention in the middle grades. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 47(2), 149–157. <https://doi.org/10.2307/585619>

completion rates for groups that had only student requests. However, the researchers noted that both groups' levels of parental involvement were much higher than the control group who received no invitations. Invitations directly from the child specifically asking for the parents help or involvement are uniquely impactful for parents who are especially responsive to their students' needs. According to the Hoover-Dempsey and Sandler model, invitation from the student may be implicit (not directly requested but observed; the parent observes that the child is struggling and begins monitoring work, creating routines, and sometimes direct teaching), or explicit (asking for help, discussing situations, or school events). Fishman and Nickerson's (2014) study included parental reports that confirm this conclusion but suggest a time of instruction and practice for the students making these requests, such as reviewing and role-play.

The last area of motivation identified by the Hoover-Dempsey and Sandler model is parent's life context variables. This area considers factors of work schedules, support systems, SES, and diverse cultures as important variables in involvement. The study explains, however, that though differences in practice have been observed, SES is not a reliable predictor of parental involvement¹⁰, and access to resources may be a more reliable focal point for schools to focus on improving. Research by Collignon, Men, and Tan (2001)¹¹ explains that parents from lower SES often have work schedules that are less flexible and predictable, decreasing the time and energy these parents have for school

¹⁰ Griffith, J. (1998). The relation of school structure and social environment to parent involvement in elementary schools. *The Elementary School Journal*, 99(1), 53–80.
<https://doi.org/10.1086/461916>

¹¹ Collignon, F. F., Men, M., & Tan, S. (2001). Finding ways in: Community-based perspectives on southeast Asian family involvement with schools in a New England state. *Journal of Education for Students Placed at Risk*, 6(1 & 2), 27–44.

involvement. Horvat et al. (2003)¹² argues further that parents from lower SES may have experienced less schooling themselves and have fewer professional support systems, and therefore may have less school related knowledge. As mentioned previously, personal experiences tend to have a significant impact on motivational factors due to their socially constructed nature. However, Hoover-Dempsey and Sandler caution that there are multiple potential consequences of considering SES a factor in parental involvement. In a study by Davies (1993)¹³, teachers reported that parents from low SES are harder to reach and that they believe these parents do not value education. When schools and teachers assume that lower SES parents will be less involved, they also tend to decrease the quantity of resources available to them and invitations to involvement; this assumption in turn limits the parents' ability to be involved and their perception of efficacy. It is sometimes true, as Calderon (2000) argues, that parents of higher SES may have more access to resources to develop better communication skills with their child, such as sign language classes, books and dictionaries, aural rehabilitation and speech therapy services, and advanced listening devices. In Deaf Education specifically, there are multiple cultural and economic factors to consider when evaluating parental involvement in the school. One is what services the student qualifies for as part of their public education or medical needs and what services the parent must pay for. Regardless of the language of the child, parent sign language classes outside of residential school outreach programs or community volunteer programs are typically offered at the local community college for

¹² Horvat, E. M., Weininger, E. B., & Lareau, A. (2003). From Social Ties to Social Capital: Class Differences in the Relations Between Schools and Parent Networks. *American Educational Research Journal*, 40(2), 319–351. <https://doi.org/10.3102/00028312040002319>

¹³ Davies, D. (1993). Benefits and barriers to parent involvement: From Portugal to Boston to Liverpool. In N. F. Chavkin (Ed.), *Families and schools in a pluralistic society* (pp. 205–216). Albany, NY: State University of New York Press.

by-credit tuition, which may or may not be affordable for all parents. Another factor to consider is that parents who are members of the Deaf community and understand its collectivist culture may be more naturally inclined to participate in school and community activities than a hearing parent who has only ever known an individualist culture.

Conclusions

Overall, there are many factors that affect a parent's motivation to be involved in their child's education at home or in school, and in order to develop strategies for increasing involvement all of these factors must be considered and attended to. There is no one size fits all solution to encouraging parents to become involved, so a combination of strategies must be utilized to reach the most parents. Hoover-Dempsey and Sandler have a guide of strategies for increasing involvement that may be used by schools and teachers when developing these programs (see Figure 2). The most important things to remember when communicating with parents is to be personal and intentional with invitations to be involved and to inform them of the potential impact they may have on their child's education just by being a part of it. It is also essential to be flexible and considerate of parents' schedules and what type of involvement is most comfortable for them. The Hoover-Dempsey and Sandler model and the supporting research I have reviewed will provide a solid foundation as this study aimed to understand the context of parental involvement in Deaf education, as well as its impacts on socio-emotional development in middle childhood.

Create an inviting, welcoming school climate

- Create visual displays in school entry areas and hallways reflective of all families in the school (photos, artifacts, pictures, history); focus on creating a strong sense that “this is *our* school; *we* belong here.”
- Attend to the critical role of central factors in the creation of positive school climate: principal leadership; long-term commitment to improving and maintaining positive school climate; creation of trust through mutually respectful, responsive, and communicative teacher-parent relationships
- Develop strong, positive office-staff skills with a consumer orientation; create habitual attitudes of respect toward parents, students, and visitors
- Create multiple comfortable spaces for parents in the school, supportive of parent-teacher conversations and parent networking
- Hire parents or seek parent volunteers who can provide other parents with information on how the school works, translations as needed, advocacy as needed, a friendly presence

Empower teachers for parental involvement; create dynamic, systematic, and consistent school attention to improving family-school relationships:

- Develop routine school practices focused on discussion and development of positive, trusting parent-school relationships; make family-school relationships and interactions a part of the school’s daily life and culture, e.g.:
 - Systematically seek parent ideas, perspectives, opinions, questions about school and family roles in student learning
 - Allocate regular faculty meeting time to discuss parental involvement, involvement practices that have been successful in the school, information from other sources on new ideas
 - Develop and maintain an active school file of teacher and parent ideas on what is helpful and effective in inviting parental involvement; raise public awareness of family-school relations in the school; allow development of a school-specific resource bank to support teacher skills and capacities for improved parent-teacher relations
- Develop dynamic in-service programs that support teacher efficacy for involving parents and school capacities for effective partnership with families; programs should:
 - Offer teachers opportunities to collaborate with and learn from colleagues and parents
 - Create opportunities for practice and revision of strategies suggested
 - Enable school development of involvement plans responsive to teacher, family, and community needs

Learn about parents’ goals, perspectives on child’s learning, family circumstances, culture:

- Offer suggestions for support of child’s learning consistent with parents’ circumstances
- Focus on developing two-way family-school communication (asking questions, listening well to responses)
- Seek parents’ perspectives on the child and child’s learning; seek parent suggestions and follow through on them
- Adapt current involvement approaches as needed to enhance the fit between invitations and family circumstances; craft new strategies to enhance opportunities for communication

Join with existing parent-teacher-family structures to enhance involvement:

- Use after-school programs to increase family-school communication: include after-school staff in in-house communications, faculty meetings, professional development opportunities
- Use current parent groups (e.g., PTA/PTO) to invite *all* families’ participation; work with parent leaders to ensure open access; encourage varied activities of interest to diverse family groups within the school
- In middle and high schools, create advisory structures that allow parents to check in with one adviser for general information on child progress, program planning, etc.
- Seek district and community support for creation of new structures to support family-school interactions and communication (e.g., parent resource room, telephone and e-mail access in classrooms, staff position dedicated to parent-school relationships, school-based family center)

Offer full range of involvement opportunities, including standard approaches (e.g., parent-teacher conferences, student performances) and new opportunities unique to school and community (e.g., first-day-of-school celebrations, parent workshops, social/networking events):

- Offer *specific* invitations to specific events and volunteer opportunities at school; schedule activities at times that meet the needs of families with inflexible work schedules
- Advertise involvement opportunities clearly, attractively, repeatedly, using methods targeted to interests and needs of school families

Invite teachers, parents, principal, and staff to student-centered events at school:

- Increase opportunities for informal parent-teacher-staff communications and interactions
- Use these events to seek parent comments and suggestions for involvement
- Use the events as venues for distributing brief, attractively formatted information in appropriate languages on issues in parental involvement (e.g., developmentally appropriate, easy-to-implement suggestions for supporting student learning; information on effects of parental involvement; information on school policies and upcoming events)

Figure 2: Hoover Dempsey and Sandler’s Strategies to Increase Schools’ Capacities for Inviting Parental Involvement (Hoover-Dempsey et al., 2005)

CHAPTER TWO

The Parents' Role in Childhood Emotional Development

Intro

In order to understand the implications of research that analyzes trends in parental involvement, we must understand the different aspects of a parent's role and how they impact a child's development. This chapter discusses multiple elements of middle childhood social-emotional development that are impacted greatly by the parent.

Role Models

Role modeling can be impactful in a variety of relationships in a variety of contexts, such as between a student and teacher, parent and child, athlete and coach, youth and minister, etc... The responsibility may look different depending on the situation, but the impact of role models is consistently recorded through research and narratives. Role models have a uniquely significant impact in the Deaf community due to the shortage of Deaf role models in education for Deaf students. The frequency of Deaf children being born to hearing families creates a necessity in the education of Deaf students for Deaf adult role models as sources of encouragement, ambition, cultural mentorship, language modeling, and social capital. Deaf children often feel a sense of isolation if they grow up in a non-signing family or at a mainstream school, and often experience negative prejudices by the community about their deafness that can negatively

influence the development of their identity and confidence in middle childhood.¹⁴ Having an adult who is similar to them and has had similar life experiences often makes a huge difference in a Deaf student's life trajectory.

A research synthesis published in the *American Annals of the Deaf*¹⁵ explains that role modeling has a noticeable impact in five distinct developmental areas: shifting parental attitudes, identity development, formation of navigational capital, language development, and psychosocial development. Specifically, parental role models early in life establish a foundation of dispositions that mentors later in life can either build upon or attempt to shift. Two main factors of role modeling were identified as aiding in creating an impactful mentoring experience for Deaf mentees: high expectations and effective communication. The research proved that Deaf mentors provide essential connections in the form of social capital as Deaf students begin to enter the world and the workforce.

While culturally aware and well-educated hearing members of the Deaf community can make a big impact by encouraging and advocating for Deaf students, there is an important opportunity with Deaf role models for students to connect with adults who have similar cultural affiliations and experiences. Therefore, it is essential to encourage the involvement of parents in Deaf Education programs; allowing students to see adults who are like them successful in a variety of professions can be extremely impactful.

¹⁴ *Role Models Have a Big Impact on #DeafSuccess—National Deaf Center*. (2021, September 22). <https://nationaldeafcenter.org/news-items/importance-of-deaf-role-models/>

¹⁵ Cawthon, S.W., Johnson, P.M., Garberoglio, C.L., & Schoffstall, S.J. (2016). Role Models as Facilitators of Social Capital for Deaf Individuals: A Research Synthesis. *American Annals of the Deaf* 161(2), 115-127. [doi:10.1353/aad.2016.0021](https://doi.org/10.1353/aad.2016.0021).

The Impact of Child-Rearing Styles

The term “child-rearing” refers to the bringing up or raising of a child; this term is more inclusive than the term “parenting” to the diversity of family structures we see today. The four main child-rearing styles are studied for their effects on child development are “Permissive,” “Uninvolved,” “Authoritarian,” and “Authoritative.” These styles are described using three distinguishing features: (1) acceptance and involvement, (2) control, and (3) autonomy granting. Acceptance and involvement describe caregiver behaviors that demonstrate a high or low level of interest and support in the child’s life, activities, and characteristics. Control includes features of caretaking such as guidance, rule-setting, rule-enforcing, and parental decision making. Autonomy granting describes what level of freedom the caregiver grants the child for decision making and interacting with others. Studies have shown that the different child-rearing styles have direct impacts on child development based on these three features.¹⁶

The first of these child-rearing styles is “Permissive.” In this style, caregivers are highly involved but exhibit low levels of control, granting high autonomy. This style is characterized by the “friendship” role, where the caregiver rarely sets or enforces rules, and is overly responsive to the child’s wants in order to avoid conflict. Next, the “Uninvolved” or “Neglectful” style has low involvement, low control, and high autonomy granting tendencies. These caregivers undersupply attention, nurturance, and guidance, and are often labeled as “indifferent,” “absent,” “cold,” or “uncaring.” There

¹⁶ Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt.2), 1–103. <https://doi.org/10.1037/h0030372>; Zeltser, F. (2021, July 1). A psychologist shares the 4 styles of parenting—And the type that researchers say is the most successful. *CNBC*. <https://www.cnbc.com/2021/06/29/child-psychologist-explains-4-types-of-parenting-and-how-to-tell-which-is-right-for-you.html>

are many reasons a caregiver may come off this way and they are often facing hardships of their own. Also demonstrating low involvement and acceptance, the “Authoritarian” style is characterized by high control and low autonomy granting. These caregivers employ strict rules, punishments, and one-way communication systems. The authoritarian style often shuts down two-way communication and offers firm guidance towards right and wrong with little to no explanation. These caregivers aim to have full control through the use of discipline. Lastly, the “authoritative” style exhibits high levels of acceptance and involvement, reasonable levels of control, and a gradual increase in autonomy granting. In this style, caregivers set clearly explained expectations, including open communication, but demonstrate grace and empathy. Natural consequences for mistakes are used as teachable moments where the caregiver can teach values and guide them towards reasoning skills. Studies have shown that the authoritative style promotes cognitive, emotional, and social competence. However, psychological control that is frequently employed in the authoritarian style has been linked to adjustment problems that affect academic and social competence.

After consideration of cultural and character differences, there is really no one child-rearing style that fits every caregiver-child relationship 100% of the time, and the best method is to be flexible to the child’s needs and the situation. For example, a permissive caregiver should adjust to have higher control to keep their child safe in dangerous situations, and the authoritarian and authoritative parent may adjust to lower levels of control when a child is overwhelmed or unwell. Nevertheless, there are some “positive strategies” that have proven to be effective in rearing healthy, independent, competent children. These include using transgressions as learning opportunities, limiting

the opportunities for transgressions, explaining the reasoning behind rules, compromising, problem solving, participation in family duties and routines, encouraging and rewarding maturity, and demonstrating empathy.¹⁷

Attributions and Mindsets About Ability

Attributions can be defined as how people commonly explain their behavior based on internal or external factors. As children develop reasoning skills and are guided through feedback and praise throughout middle childhood, they develop an increasing ability to reflect on the factors affecting their behavior and make attributions. There are two main patterns of attributions and mindsets about ability that result from these reflections. Children who credit their success to ability and their failure to controllable factors make Mastery-Oriented Attributions. These children tend to have a growth mindset about ability, meaning they believe that ability can be improved with effort and by practicing effective strategies. Conversely, children who attribute failure to lack of ability and success to uncontrollable factors, such as luck, have developed Learned Helplessness. These children tend to have a fixed mindset about ability, meaning their abilities are set and cannot be improved by persistence or efforts. Because of this mindset, they often develop anxiety about failure and losing control¹⁸.

Interestingly, studies have shown that the main influence to which of these mindsets a child develops is only weakly related to their parents mindsets at best due to

¹⁷ Berk, L. E. (2023). Chapter 10: Emotional and Social Development in Early Childhood. In *Infants, children, and adolescents* (ninth, pp. 365–401). essay, SAGE Publications.

¹⁸ Dweck, C., & Molden, D. (2005). *Self Theories: Their Impact on Competence Motivation and Acquisition* (pp. 122–140).

the fact that children rarely are able to determine their parents mindset.¹⁹ Rather, the largest influence on children's development of achievement related attributions and mindsets about ability is the feedback and praise they receive from caregivers about their success and failure.²⁰ Praise from adults that emphasizes the child's behavior and effort, called "process praise" is proven to lead to the development of mastery-oriented attributions and a growth mindset about ability. Some simple examples of process praise are, "your hard work paid off!" "You solved the problem!" This type of praise also portrays failure as a learning opportunity or uses an "enhancing mindset." On the other hand, praise that emphasizes the child's traits rather than controllable efforts, such as "you're such a good writer" or "you're so smart," is called "person praise." This type of praise suggests a debilitating mindset about failure, meaning that there is no opportunity for improvement. This type of praise is directly correlated to the development of learned helplessness and fixed mindset about ability.

The attributions developed in middle childhood persist into adult mindsets, influencing the way people approach challenges, reflect on their accomplishments, and understand their failures. However, these attributions do not have to be permanent. Attribution intervention uses effective strategies to cognitively retrain a person's mindset towards mastery orientation and growth mindset about ability.

¹⁹ Haimovitz, K., & Dweck, C. S. (2016). What predicts children's fixed and growth intelligence mind-sets? Not their parents' views of intelligence but their parents' views of failure. *Psychological Science*, 27(6), 859–869. <https://doi.org/10.1177/0956797616639727>

²⁰ Gunderson, E. A., Sorhagen, N. S., Gripshover, S. J., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2018). Parent praise to toddlers predicts fourth grade academic achievement via children's incremental mindsets. *Developmental psychology*, 54(3), 397–409. <https://doi.org/10.1037/dev0000444>

Significance to the study

Research tells us that role models are influential in developing a sense of identity, that parenting styles affect all areas of development, and that types of praise are the main factor in the development of achievement attributions, but what role does parental involvement play in these areas? Parental involvement in a child's schooling crosses into all three of these areas of development. This study aims to understand specifically the role that parental involvement and types of praise play in attribution development in middle childhood for Deaf students.

CHAPTER THREE

History of Deaf Education in America

It is important to have a thorough knowledge of Deaf Education history in order to understand the motivations and trends of parental involvement in Deaf education programs. The culture found in Deaf families and schools has developed over a long history of shared experiences living in a majority hearing world.

Global perspectives

The story of Deaf Education in America began far before it arrived on our shores. In 355 B.C., Aristotle defined for the Ancient Greeks the philosophy on deafness that would remain largely unchallenged until the 16th Century; Aristotle argued that "Deaf people can not be educated [since] without hearing, people can not learn," and those "born deaf become senseless and incapable of reason." The Greek language was viewed as superior, and those who did not speak it, including deaf people, were considered barbarians.²¹ For many years in many regions, people justified their dehumanization of Deaf people with the actions of Jesus in the Bible in Mark chapter 7. For people who do not study the context of this chapter or the themes of the text, this passage can be easily misunderstood. Biblical scholars explain that Jesus's motivation for healing the Deaf man was not because his Deafness was an ailment to his health in some way, but to his ability to join in Godly community with other believers due to societal biases at the time. It is important to note that Jesus healed just that one man in his faith and did not "cure" all

²¹ Pyfers, L. (2020, October). *Deaf History—Europe—384—322 BC: Aristotle: "Deaf people can not be educated..."* <https://deafhistory.eu/index.php/component/zoo/item/aristotle>

Deaf people.²² In 1521, one of the earliest statements that challenged the Aristotelian belief that Deaf people are “incapable of reason” was published by humanistic educator Rudolf Agricola; Agricola claimed in his publication *De Inventione Dialectica* that Deaf people can indeed be taught a language. From there, Deaf Education expanded rapidly. The first teacher of the Deaf, Pedro Ponce de Leon, began teaching in 1550 and by 1755, Charles Michel Abbé de l’Epée had established the first free school for the deaf in Paris, France.²³

Native beginnings

Over half a century later, a seminary student home for vacation was watching his brothers and sisters play with other kids from the block the backyard of his Connecticut home when he noticed that one of the girls was not participating in the games. After asking one of his brothers, he learned that the girl’s name was Alice Cogswell, and she was playing alone because she was Deaf. The man, Thomas Hopkins Gallaudet, proceeded to join Alice in the yard and attempt to communicate with her. He taught her the word “hat” by writing the word in the sand and pointing to his own. When Alice’s father, Dr. Mason Cogswell, learned what had happened, he was overjoyed. After much discussion, Gallaudet agreed to travel to Europe, learn their established methods of teaching the deaf, and bring his knowledge back to the United States to establish a Deaf school in the area. He traveled first to the Braidwood Academy in England where they refused to share their methods with him or let him on the grounds. Defeated and

²² Buchholz, N. (2018, October 29). *Is Jesus Healing a Deaf Man Oppressive? Interpreting Mark 7:31-37 through a DeafLens*.

²³ Gannon, J. R. (2012). *Deaf heritage: A narrative history of deaf america*. (J. Butler & L.-J. Gilbert, Eds.). Gallaudet University Press.

unsatisfied with the results of Braidwood's "oral method," which focused on the mastery of lipreading and speech, Gallaudet needed a new plan. While in England, he met the director of the Institut Royal des Sourds-Muets, Abbe Sicard, from Paris.²⁴ This school was founded by Abbe de L'epée, the "Father of the Deaf," who began teaching after watching two Deaf people communicating with their hands and asking them to teach him their language.²⁵ Gallaudet accompanied Sicard and two of his teachers back to France to study their methods. Shortly thereafter, his funding was dwindling, and he had not learned enough to return to Connecticut to establish a school on his own. He therefore invited Laurent Clerc, one of the French teachers he met in England, to travel back to the United States with him, and in 1817 they established the American School for the Deaf together in Connecticut.

Oralism and the Milan Conference

Over the next century, a long list of schools for the Deaf were established across the United States. One of these schools, established in 1872, was a speech school for teachers of the deaf in Boston, Massachusetts. The founding of this school reflected the increasing popularity of the oral method, which was largely due to its relentless advocate, Alexander Graham Bell, the school's founder. Eight years later, Bell attended and

²⁴ The Legacy Begins—History. (n.d.). *Gallaudet University*. Retrieved January 12, 2023, from <https://gallaudet.edu/museum/history/the-legacy-begins/>

²⁵ Sicard, R. A. C., Sievrac, J. H., & Ladébat, A. D. L. de. (1815). *Recueil des définitions et réponses les plus remarquables de Massieu et Clerc, sourds-muets, aux diverses questions qu'il leur ont été faites dans les séances publiques de M. l'Abbé Sicard, à Londres: Auquel on a joint l'alphabet manuel des sourds-muets, le discours d'ouverture de M. l'Abbé Sicard, et une lettre explicative de sa méthode*. Imprimé par Cox et Baylis. https://www.google.com/books/edition/Recueil_des_d%C3%A9finitions_et_r%C3%A9ponses_le/YsI46RX2DOYC?hl=en&gbpv=1&dq=inauthor%3A%22Roch%20Ambroise%20Cucurron%20Sicard%22&pg=PR2&printsec=frontcover

presented at the International Congress on Education of the Deaf in Milan, Italy. In attendance at the Milan Conference were 167 delegates, including 87 from Italy, 56 from France, 8 from England, 5 from America, and 8 others. American principal James Denison was the lone Deaf delegate invited to participate in the conference. Despite the clear bias and lack of representation, the conference resulted in an enormously consequential resolution banning the use of Sign Language in schools. Following this resolution occurred some of the most detrimental historical happenings for the global Deaf Community. In the United States, the hearing population disregarded any respect they held for the language, as well as many of the Deaf teachers of the Deaf who were unable to teach using the oral method. In response, the National Association of the Deaf was established in Cincinnati, Ohio in the same year to combat the threats to learning, independence, and employment of the Deaf that pure oralism presented. Further, they hoped that their work as a professional organization of Deaf people, for Deaf people, would improve the hearing public's understanding of their community and abilities.

Alexander Graham Bell and the AGB Association

The name Alexander Graham Bell tends to ring a bell in the minds of most people, but not usually for the same reasons that the Deaf community remembers the name. Dr. Bell was a speech pathologist like his father before him, and he knew both American Sign Language and the British Alphabet well because that was how he often communicated with his Hard of Hearing mother. Bell was arguably the strongest and most influential advocate in the US for pure oralism in education. Though he was pragmatic about using sign language with adult signers, he preached relentlessly the need to ban its use with children and in schools. Along with the physiology of speech, Bell

studied eugenics, the study of how to control reproduction to increase the occurrence of heritable characteristics regarded as desirable.²⁶ In 1883, Bell published “Upon the Formation of a Deaf Variety of the Human Race,” in which he explained his beliefs that this principle of eugenics can and should be applied to the intermarriage of Deaf people to prevent the reproduction of inherited Deafness. He argued that “Those who believe as I do, that the production of a defective race of human beings would be a great calamity to the world, will examine carefully the causes that lead to the intermarriage of the deaf with the object of applying a remedy.” Bell blamed the educational system for “herding” deaf people together into schools for the Deaf where they can meet, form a community, mingle, and eventually marry.²⁷ Further, he saw any opportunity for the Deaf to come together as concerning, including reunions, clubs, social organizations, newspapers, conventions, and worship gatherings. He even suggested laws that would ban the marriage of Deaf people. It was from his advocacy that the idea of placing one Deaf student in a school of hearing children grew in popularity. This idea grew and can now be recognized in the common assumptions associated with the “least restrictive environment” clause discussed in the Deaf Education Today section below. Before the 1890s, around a third of all teachers in schools for the Deaf were deaf themselves. Bell believed that employing Deaf people would contribute to this “formation of a deaf race” and was therefore “to be avoided.” By 1927, shortly after the rise of oralism, only 15% of

²⁶ For more information regarding the history of Alexander Graham Bell and the Deaf community, visit: The Influence of Alexander Graham Bell. (n.d.). *Gallaudet University*. Retrieved January 12, 2023, from <https://gallaudet.edu/museum/exhibits/history-through-deaf-eyes/language-and-identity/the-influence-of-alexander-graham-bell/>

²⁷ Bell, A. G. (1884). *Upon the Formation of a Deaf Variety of the Human Race*. U.S. Government Printing Office.

teachers were Deaf.²⁸ Students were banned from and punished for using sign language in school, parents were strongly discouraged from allowing its use at home, and though Bell's advocacy for laws banning marriage between Deaf people were shut down, the attitudes towards Deafness they were supporting permeated the United States at a systemic level. Many state legislations passed laws banning the use of fingerspelling and sign language in education. In the 1930s, hearing aids began to be more prevalent in America, however, they were very slow to become more popular. Many people, especially in the Deaf community, believed that hearing aids supported the medical model²⁹, and the technology itself was quite large, inconvenient, and awkward. At the same time, automobiles were taking over American transportation rapidly, as were their licensure requirements. At least 4 states required "adequate hearing" in order to pass a driver's license exam, writing Deaf drivers out of much of their independence, dignity, and ability to travel to work.³⁰ Even after evidence was published that Deaf drivers were not accident bound, the community still had difficulty getting on the road due to a lack of insurance for Deaf drivers. This persisted until the National Fraternal Society of the Deaf began providing insurance policies to its Deaf members in the mid 1900s.³¹ At the start of

²⁸ Shaner, Wendy. "American Deaf Culture Historical Timeline." Canyons EDU. <http://www.canyons.edu/departments/sign/powerpoint1-historicalperspective.htm>

²⁹ The Medical or Pathological model views Deaf individuals as people who cannot hear, lack auditory abilities, and are deficient due to their mode of communication. People who support this view of deafness see Deaf individuals as disabled, and regard deafness as a condition that requires a cure. For more information, visit: *Understanding Deaf Culture | Mass.gov. (n.d.). Retrieved January 12, 2023, from* <https://www.mass.gov/service-details/understanding-deaf-culture>

³⁰ Baynton, D. C., Gannon, J. R., & Bergey, J. L. (2007). The Automobile. In *Through deaf eyes: A photographic history of an American community* (pp. 90–91). essay, Gallaudet University Press.

³¹ Manuscripts—Records of National Fraternal Society of the Deaf, 1900-2006—Manuscript Collection. (n.d.). *Gallaudet University*. Retrieved January 13, 2023, from <https://gallaudet.edu/archives/archives-collections/manuscript-collection/manuscripts-records-of-national-fraternal-society-of-the-deaf-1900-2006/>

WWII, many Deaf men had the urge to join the war effort and serve their country, and some had the lipreading skills to get passed the registration undiscovered, but for many, they were excluded at the first sign of “hearing impairment”³². Many Deaf people flooded the production plans across the country to participate in the war effort; they were considered the “soldiers of the assembly line.” This opportunity proved beneficial in proving that Deaf people could be productive, contributing members of the workforce.

Deaf Education Today

After far too many years of ignorance and pride, people began to notice, through observation and research, that the pure oralism method did not produce the unprecedented academic success they had expected, and the use of sign language did not hinder the ability of Deaf children to learn speech skills. American Sign Language did not start to receive its due attention until after a man named Dr. William C Stokoe, Jr. began working in the linguistics department of Gallaudet University in the 1950s. He worked tirelessly against the indifference of his colleagues to produce research on American Sign Language and published his initial findings in 1960. It was not until 1965 when he and his research partners published *A Dictionary of American Sign Language on Linguistic Principles* that he started to win the interests of other linguists by presenting ASL based on its linguistic principles as a natural language in itself. Over the next few decades, schools began to offer graduate research programs in ASL, and the United States began to recognize that the language had reputability as a natural, native language with its own grammatical principles that was used by 200,000-400,000 Deaf people in

³² “Hearing Impaired”: a term used to classify the condition barring them from service, but not a term that is accepted by the Deaf community

America and Canada. Shortly after, researchers such as Carol Padden and the National Association of the Deaf (NAD) began conducting professional research in Deaf Culture and the Deaf Community throughout history. Sign language books, training programs, and ASL users grew in popularity and the US began to emerge out of the age of oralism. By 2007, research indicated that Deaf teachers were largely returning to the profession, seeing proportions up to 55% of teachers of the Deaf being Deaf themselves. In 2017, surveys showed percentages of up to 65-70%.³³ However, in 1972, the Individuals with Disabilities in Education Act (IDEA) was passed that ensured all students with disability must have a free and appropriate education. In 1990, the law was expanded to include the “Least Restrictive Environment” clause that required that those students be educated in the setting that would be the least restrictive to their academic and developmental progress. The combination of these laws led to an increase in the mainstream setting of Deaf education, which typically includes Deaf students attending a general education campus alongside hearing children with an interpreter and academic support services. This trend has had a negative effect on Deaf residential schools, as mainstream settings were often assumed to be the “least restrictive environment” due to biases that continue to negatively influence opinions on ASL and Deafness. Today, there are many different styles of Deaf education programs including residential programs, day school programs, and mainstream programs. These programs all vary in education philosophies as well. Residential schools for the Deaf often use a Bilingual-Bicultural philosophy that emphasizes fluency in both ASL and English, using ASL as their language of instruction, while also supporting the social/cultural development of their students, including Deaf

³³ Suggs, T. (2018, April 26). Deaf Schools: TRUE-BUSINESS Deaf?—20 Years Later. <https://www.trudysuggs.com/deaf-schools-true-business-deaf-20-years-later/>

Culture. Schools that use the Oral Method prioritize the development of speech skills and English fluency, often discouraging the use of sign language. Total communication is an education philosophy that was coined in 1969 to describe a method of providing students as much information as possible by using all modes of communication, including gesture systems, sign language, speech, speech reading, fingerspelling, and English literacy. Despite the fact that many teachers did not know ASL or make any effort to learn, two-thirds of American schools for the deaf reported Total Communication as their instructional mode of communication. Though the intentions of Total Communication are to provide students with more information and enhance their learning, students of these programs often lack exposure to any one full language due to the tendency to try to combine multiple languages that cannot be used accurately simultaneously. Students struggle academically because they do not have a firm language foundation in one full language to support their learning. The growing interest in ASL research and the education of Deaf students has led to monumental improvements in the field of Deaf education over the last 50 years and will continue to do so as more discoveries are made to determine the most effective instructional practices. In addition to educational improvements, there have been many technological advances that have changed the daily life of Deaf people in recent decades. The appearance of Video Relay Services, video phones, live captioning, and more advanced hearing technologies have given the Deaf community the ability to connect to each other and the hearing world more readily. These technologies have been especially important during recent years as the COVID-19 pandemic restrictions have taken a toll on people's ability to connect as a community as well as their individual mental health.

Going Forward

As part of this research, Deaf community members were surveyed on their educational and family experiences throughout childhood. When conducting research on topics relating to the Deaf Community, there is no separating their education, language, culture, legal rights, or development from their shared experiences from Deaf history. The story of how Deaf Education developed into what it is today is one that still profoundly impacts the identity of the Deaf Community and how Deaf people live their daily life. An understanding of the past is essential for the hearing world to begin to reflect on their own subconscious biases as well as the systemic biases that exist unexamined in the United States to this day.

CHAPTER FOUR

Research Questions and Methods

Background and Rationale

Though there are many similarities between general education and Deaf education, there are also many unique differences that are often overlooked that should be prioritized. In all types of education, research has proven time and time again that parental involvement in education is one of the most reliable predictors of student academic achievement and future success. There is little research done, however, on the effects of parental involvement in Deaf education specifically. Deaf Education programs pose a special case for parental involvement because over 90% of Deaf children are born to hearing parents, and less than 10% of those parents learn ASL to communicate with their Deaf child. Previous research has focused on the effects of parental involvement on language development (Calderon, 2000³⁴) and on parents' expectations for students' success (Cawthon et al., 2015³⁵). This study focuses on an area that has not been thoroughly researched within Deaf education: parental involvement's correlation to students' mindset about ability and achievement-related attributions in their academic and social success throughout their schooling. The study targets are students who have graduated from Deaf Education programs to survey confidence in academic ability,

³⁴ Calderon, R. (2000). Parental involvement in deaf children's education programs as a predictor of child's language, early reading, and social-emotional development. *Journal of Deaf Studies and Deaf Education*, 5(2), 140–155. <https://doi.org/10.1093/deafed/5.2.140>

³⁵ Cawthon, S. W., Garberoglio, C. L., Caemmerer, J. M., Bond, M., & Wendel, E. (2015). Effect of Parent Involvement and Parent Expectations on Postsecondary Outcomes for Individuals Who Are d/Deaf or Hard of Hearing. *Exceptionality*, 23(2), 73–99. <https://doi.org/10.1080/09362835.2013.865537>

mastery-oriented attributions (as compared to learned helplessness), and growth mindset about ability (as compared to fixed mindset). The study involves a questionnaire that evaluates language and relationship between parents and children, involvement of parents at school and at home, achievement and failure attributions, and ability mindsets. The purpose of this research is to evaluate the effects of parental involvement in Deaf students' education on aspects of the students' middle childhood emotional development. Knowledge of the relationship between these variables would help educators, Deaf education programs, and parents understand the effects of parental involvement, the benefits of parent/family outreach programs, and what emotional developmental supports must be in place in districts with low parental involvement.

Study Objectives

The study objective for the questionnaire was to evaluate the effects of parental involvement in Deaf students' education on the students' mindsets about ability and achievement-related attributions. The specific areas of focus studied to accomplish this objective included surveying parental involvement in Deaf education, surveying the ability mindsets and achievement related attributions of students who graduated from Deaf Education programs, and analyzing any correlation between the two.

The questions within the questionnaire investigated seven areas of interest in order to support the study objective. These seven areas include:

- Language between parents and children
- Involvement of parents at school
- Learning support by parents at home
- Mastery oriented attributions vs learned helplessness

- Growth mindset about ability
- Fixed mindset about ability
- Whether parents tended to use process or person praise

Research Design: Subject Selection, Methods, and Activities

After obtaining approval through the Institutional Review Board at Baylor University's Office of Research Compliance, a questionnaire was sent via Qualtrics to Deaf/Hard of Hearing high school graduates who were enrolled in Deaf education programs for all or part of their K-12 education. Based on research in the literature review and recommended standards for qualitative interviewing, a sample size of 20 people was determined to be effective in reporting applicable results³⁶. The survey contains questions about specific biographical information, and questions to which the participants answered within a rated scale, agreement scale questions, and open-ended questions. Participants had a total of 2 weeks to review and answer the questions on the questionnaire on their own time before submitting for our analysis; the questionnaire should have taken approximately 20-30 minutes to complete. The survey was taken independently by participants; however, the consent form and survey itself included reminders to contact the investigators if the participant had questions about translation, software, or scheduling. Though the format was slightly adjusted due to the software, the content of the questions can be found in Questionnaire Content (see Appendix).

³⁶ Shetty, S. (2018, August 21). *Determining Sample Size for Qualitative Research: What Is the Magical Number?* | *InterQ Research*. <https://interq-research.com/determining-sample-size-for-qualitative-research-what-is-the-magical-number/>

The first section of demographic information related to age, language, and schooling is to provide the investigators with a full picture of the participants educational experiences in order to analyze the data in correlation to the other sections. These are factors we suspect may have an effect on parental involvement. The next section with rated questions is asked to get basic information about their education programs' effectiveness in teaching language and encouraging parental involvement. The next section of scaled and multiple-choice questions measures the elements of emotional development in middle childhood that I was examining in this study: achievement related attributions and the participant's perspective on their parents' involvement. The purpose of the open-ended questions is to give us a more detailed, clear understanding of the participants' experience regarding their relationship with their parents, their parents' involvement in their schooling, and their achievement related attributions. I ask about the educational philosophy and communication method of their school in order to consider any correlation between these factors and language/literacy skills and parental involvement trends. The question about role models is included to prompt personal narratives of how impactful role models in Deaf education can be.

Data Analysis

The select, rated, and agreement level questions were counted and analyzed statistically. The open-ended responses were reviewed and annotated for themes, trends, and highlights. Answers of "N/A" were counted as data in their own category, and answers of "other: ____" were reviewed and annotated like the open-ended responses. Questions that are not answered were considered "N/A."

CHAPTER FIVE

Research Results: Quantitative Data Report

Data Collection

Participation recruitment took place online via email, via personal contact, and/or through referrals from the faculty advisor. I contacted participants individually via email or in person explaining the research study and the incentive for participating. After the target subjects responded initially that they were interested in becoming participants, the follow-up conversation included a more detailed description of the research procedure and what their consent will mean via email- including a consent form describing in detail all risks and privacy assurances for participating in the study. Fifty people were contacted directly via email and up to 30 more people were contacted indirectly through online recruitment, flyer shares, mutual contacts, and referrals. Of the 50 people contacted directly, 64% (or 40% of the total 80 people) responded to the initial direct contact agreeing to participate in the study (32 respondents). I had a final response rate of 62.5% (20 people) after agreement to participate and receiving the link to the questionnaire (25% of the people originally contacted directly or indirectly).

Demographics

Table 1 presents an overview of the results for Questions 1-8. In summary, 65% of the 20 participants were above 45 years old, and 30% were in the 26-46 age range. Similarly, 65% of participants selected “birth” as the age of onset of their hearing loss, and 30% selected “early childhood.”

Just over half (55%) of the participants reported that they use hearing aids (some selected multiple types of hearing technologies in addition to hearing aids), and 45% reported that they use no hearing technologies. Still, 85% selected ASL as their language preference. Two participants selected “other” and stated both ASL and written English and one participant selected “Spoken or written English.” Participants’ reported first language was split between ASL (30%), spoken or written English (35%), another signed communication system (20%), and both ASL and written or spoken English (15%). Half of participants reported that their parents use spoken or written English to communicate with them, 35% reported ASL, and 20% reported another signed communication system. Furthermore, 80% of participants experienced mainstream schooling for all or part of their education, 35% experienced a day school program, and 40% experienced a residential school for the Deaf. Lastly, 70% of participants reported that their parents lived in the city where they went to school, and 30% reported they did not.

Table 1: Questions 1-8 Report Table

Q1 - Age:

Answer	%	Count
18-25	5.00%	1
26-35	15.00%	3
36-45	15.00%	3
46-55	40.00%	8
56-65	25.00%	5
66+	0.00%	0
Total	100%	20

Q2 - Age of Onset of hearing loss:

Answer	%	Count
Birth	60.00%	12
Early Childhood	30.00%	6
Late Adolescence	5.00%	1
Adolescence	0.00%	0
Young Adulthood	0.00%	0
Adulthood	0.00%	0
Other:	5.00%	1
Total	100%	20

Other: - Text

Got meningitis in new born nursery (one day old)

Q3 - Do you use any of the following hearing technologies (select all that apply)

Answer	%	Count
Hearing Aid(s)	42.31%	11
Cochlear Implant(s)	7.69%	2
Assisted Listening Devices	7.69%	2
Other:	7.69%	2
None	34.62%	9
Total	100%	26

Other: - Text

Body-Worn hearing aid

I quit using hearing aid since I was 19 years old.

Q4 - Which of the following represents your language preference?

Answer	%	Count
Spoken or Written Spanish	0.00%	0
Spoken or Written English	5.00%	1
Other:	10.00%	2
Mexican Sign Language (LSM)	0.00%	0
Another Signed Communication System (PSE, SEE-I, SE-II, Cued Speech...etc.)	0.00%	0
American Sign Language (ASL)	85.00%	17
Total	100%	20

Other: - Text

ASL and written English

ASL and written English (Both)

Q5 - What is your first language?

Answer	%	Count
American Sign Language (ASL)	30.00%	6
Spoken or Written English	35.00%	7
Another Signed Communication System (PSE, SEE-I, SE-II, Cued Speech...etc.)	20.00%	4
Spoken or Written Spanish	0.00%	0
Mexican Sign Language (LSM)	0.00%	0
Other:	15.00%	3
Total	100%	20

Other: - Text

ASL and written English

ASL and English at same time

Both asl and spoken English

Q6 - What languages do your parents use to communicate with you and/or others? (select all that apply)

Answer	%	Count
American Sign Language (ASL)	30.43%	7
Spoken or Written English	43.48%	10
Another Signed Communication System (PSE, SEE-I, SE-II, Cued Speech...etc.)	17.39%	4
Spoken or Written Spanish	0.00%	0
Mexican Sign Language (LSM)	0.00%	0
Other:	8.70%	2
Total	100%	23

Other: - Text

ASL and written English

use gesture/Spanish words

Q7 - What type of school did you go to? (select all that apply)

Answer	%	Count
Residential Deaf School	25.81%	8
Day School Program for the Deaf	22.58%	7
Mainstream Schooling	51.61%	16
Other:	0.00%	0
Total	100%	31

Q8 - Did your family live in the city/area where you went to school?

Answer	%	Count
Yes	65.00%	13
No	25.00%	5
Other:	10.00%	2
Total	100%	20

Other: - Text

yes ,Residential Deaf School (4 hours away from home)

PreK to 1 in RDSPD, 2-12 in mainstream school

Language Proficiency

Table 2 presents an overview of the results for Questions 9 and 10. In summary, 65% of participants reported that their ASL language skills are equivalent to that of a sophisticated native signer. No participants reported their signing skills being below a level 4: being able to sign ASL with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics. Similarly, 50% reported that their spoken or written English proficiency was equivalent to that of a native user. The other 50% reported that their English proficiency is fluent or sufficient/effective in all areas of professional, social, and practical usage.

Table 2: Questions 9-10 Report Tables

Q9 - Please rate your own language skills in the following area:

Answer	%	Count
0- Unable to function in the language	0.00%	0
1- Able to satisfy routine travel needs and minimum courtesy requirements	0.00%	0
2- Able to satisfy routine social demands and limited work requirements	0.00%	0
3- Able to sign ASL with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics	15.00%	3
4- Able to use the language fluently and accurately on all levels normally pertinent to professional needs	20.00%	4
5- Language proficiency equivalent to that of a sophisticated native signer.	65.00%	13
Total	100%	20

Q10 - Please rate your own language skills in the following area:

Answer	%	Count
0- Unable to function in the language	0.00%	0
1- Able to satisfy routine travel needs and minimum courtesy requirements	0.00%	0
2- Able to satisfy routine social demands and limited work requirements	0.00%	0
3- Able to use structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics	25.00%	5
4- Able to use the language fluently and accurately on all levels normally pertinent to professional needs	25.00%	5
5- Language proficiency equivalent to that of a sophisticated native user.	50.00%	10
Total	100%	20

Parental Involvement

Table 3 presents an overview of the results for Questions 11 and 12. In summary, 60% of participants reported that their parents were very involved or involved more than average in their education specifically in their school community. The other 40% reported that their parents were somewhat involved or uninvolved. Furthermore, 45% of participants reported that their parents were very involved in their education specifically

by supporting their schooling at home. In response to the same question, 30% reported that their parents were involved more than average, and 20% reported that their parents were somewhat involved, involved less than average, or uninvolved in their education at home.

Table 3: Questions 11-12 Report Table

Q11 - Rate the involvement level of your parents in your education throughout your schooling, specifically their participation in your school community.

Answer	%	Count
Uninvolved	10.00%	2
Somewhat involved (attending and/or observing)	30.00%	6
Involved more than average (volunteering and/or serving)	10.00%	2
Very involved (leading and/or participating)	50.00%	10
Total	100%	20

Q12 - Rate the involvement level of your parents in your education throughout your schooling, specifically by creating and encouraging a learning environment at home.

Answer	%	Count
Uninvolved	5.00%	1
Involved less than average (observing and checking in on your academics...etc.)	15.00%	3
Somewhat involved (discussing and reminding you about academics, initiating conversations about school and extracurriculars...etc.)	5.00%	1
Involved more than average (interest in your academics, initiating conversations about school and extracurriculars, encouraging hard work and achievement, offering help when needed...etc.)	30.00%	6
Very involved (involved in your academics such as by monitoring your grades, helping with homework, reviewing what you learn at school, creating games for continued learning, reading with you, family/parenting classes, working with an early intervention specialist...etc.)	45.00%	9
Total	100%	20

Scaled Questions and Bivariate Correlations

Table 4 presents an overview of the results for Question 13 (labeled 13.1-11). A Regression Analysis (Table 5) was computed to assess the correlation between participants responses to each rated scale question (Questions 16.1-11) and their rating of their parents' involvement in their community (Question 11), their rating of their parents' involvement at home (Question 12), their language fluency in ASL (Question 9) and in English (Question 10). Table 6 shows a summary of correlation data between questions that showed significantly significant linear relationships. The regression analyses for all other rated scale question combinations between language fluency or parental involvement and questions about achievement or ability mindset did not produce sufficient evidence to prove they had a linear relationship because the correlation coefficient was not statistically different than zero ($p\text{-value} > 0.05$). Therefore, these questions were not analyzed. However, the correlation data for all question combinations is shown in Table 5.

Table 4: Questions 13.1-11 Report Tables

Q13: Please Select how strongly you agree or disagree with the following statements. (Do you agree that the following statements apply to you?)										
#	Question	Strongly Disagree	Disagree	Somewhat disagree	Neutral	somewhat agree	Agree	Strongly Agree	Total	
1	I have a strong healthy relationship with one or both of my parents.	0.00%	5.00%	0.00%	0.00%	10.00%	2.00%	5.00%	13	20
2	Most of my accomplishments so far have been due to my hard work and abilities.	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	65.00%	13	20
3	Most of my accomplishments so far have been due to uncontrollable factors.	11.76%	17.65%	11.76%	2.00%	29.41%	5.00%	5.88%	1	17
4	Times in my past when I have not succeeded have been due to an uncontrollable lack of ability.	15.79%	26.32%	10.53%	2.00%	5.26%	1.00%	10.53%	2	19
5	Times in my past when I have not succeeded were due to my insufficient effort.	35.00%	15.00%	10.00%	2.00%	5.00%	1.00%	15.00%	3	20
6	I see failure as an opportunity to grow my skills and abilities.	11.11%	0.00%	16.67%	3.00%	0.00%	0.00%	27.78%	5	18
7	Times in my past when I have not succeeded have limited my opportunities and led me to pursue other things that are within my abilities.	10.00%	5.00%	5.00%	1.00%	20.00%	4.00%	15.00%	3	20
8	My parents have been reliable advocates for me when unfair obstacles have gotten in the way of my success.	10.53%	0.00%	10.53%	2.00%	5.26%	1.00%	31.58%	6	19
9	If I do not know how to succeed in something, I usually ask for help.	10.53%	0.00%	0.00%	0.00%	5.26%	1.00%	10.53%	2	19
10	I believe that most reasonable pursuits are achievable to me if I work hard.	0.00%	0.00%	0.00%	0.00%	5.00%	1.00%	25.00%	5	20
11	I believe that many of my accomplishments were due to luck or good fortune.	21.05%	21.05%	31.58%	6.00%	10.53%	2.00%	5.26%	1	19

Table 5: Regression Analysis Report Tables for All Question Combinations

Analysis	Multiple R	R Square	Slope	P-Value
Q9-13.1	0.198	0.039	0.364	0.403
Q9-13.2	0.231	0.053	0.182	0.327
Q9-13.3	0.246	0.060	0.682	0.296
Q9-13.4	0.015	0.000	-0.045	0.949
Q9-13.5	0.177	0.031	0.545	0.455
Q9-13.6	0.380	0.144	1.227	0.099
Q9-13.7	0.387	0.150	0.909	0.092
Q9-13.8	0.139	0.019	0.409	0.558
Q9-13.9	0.395	0.156	1.045	0.085
Q9-13.10	0.126	0.016	-0.136	0.598
Q9-13.11	0.144	0.021	-0.318	0.545
Q9-14	0.502	0.252	-0.545	0.024
Q10-13.1	0.000	0.000	0.000	1.000
Q10-13.2	0.517	0.267	0.364	0.020
Q10-13.3	0.125	0.016	0.309	0.601
Q10-13.4	0.116	0.014	0.309	0.625
Q10-13.5	0.092	0.009	0.255	0.698
Q10-13.6	0.182	0.033	0.527	0.442
Q10-13.7	0.173	0.030	0.364	0.466
Q10-13.8	0.201	0.040	0.527	0.396
Q10-13.9	0.361	0.130	0.855	0.118
Q10-13.10	0.019	0.000	0.018	0.938
Q10-13.11	0.285	0.081	-0.564	0.223
Q10-14	0.187	0.035	-0.182	0.430
Q11-13.1	0.569	0.324	0.708	0.009
Q11-13.2	0.078	0.006	0.042	0.743
Q11-13.3	0.200	0.040	0.375	0.398
Q11-13.4	0.124	0.015	-0.250	0.601
Q11-13.5	0.080	0.006	0.167	0.737
Q11-13.6	0.152	0.023	0.333	0.521
Q11-13.7	0.157	0.025	-0.250	0.508
Q11-13.8	0.817	0.667	1.625	0.000
Q11-13.9	0.047	0.002	-0.083	0.846
Q11-13.10	0.454	0.206	0.333	0.044
Q11-13.11	0.028	0.001	0.042	0.907
Q11-14	0.057	0.003	-0.042	0.813
Q12-13.1	0.625	0.390	0.685	0.003
Q12-13.2	0.041	0.002	0.019	0.863
Q12-13.3	0.062	0.004	0.102	0.796
Q12-13.4	0.209	0.044	-0.370	0.376
Q12-13.5	0.111	0.012	0.204	0.641
Q12-13.6	0.026	0.001	0.050	0.913

Q12-13.7	0.217	0.047	-0.304	0.359
Q12-13.8	0.774	0.599	1.355	0.000
Q12-13.9	0.001	0.000	0.002	0.997
Q12-13.10	0.247	0.061	0.160	0.293
Q12-13.11	0.104	0.011	-0.137	0.662
Q12-14	0.125	0.016	-0.081	0.601

Table 6: Statistically Significant Regression Analysis Report Table

Analysis	Multiple R	R Square	Slope	P-Value
Q9-14	0.502	0.252	-0.545	0.024
Q10-13.2	0.517	0.267	0.364	0.020
Q11-13.1	0.569	0.324	0.708	0.009
Q11-13.8	0.817	0.667	1.625	0.000
Q11-13.10	0.454	0.206	0.333	0.044
Q12-13.1	0.625	0.390	0.685	0.003

Scaled Questions Data Interpretation

A summary of the statistically significant correlations between language fluency or parental involvement and scaled questions about achievement or ability mindset is shown below:

1. Question 9 and Question 14: ASL fluency and growth mindset about grades in school
 - a. Q9 and Q14 have a moderate positive association ($r = .5017$) that is statistically significant ($p = 0.024191675$). 25.17% of the variance in participants answers to Q14 is explained by Q11 ($r^2 = .2674$).
2. Question 10 and Question 13.2: English literacy skills and growth mindset in reflection on accomplishments (“Most of my accomplishments so far have been due to my hard work and abilities.”)
 - a. Q10 and Q13.2 have a moderate positive association ($r = .5171$) that is statistically significant ($p = 0.019557429$). 26.74% of the variance in participants answers to Q13.2 is explained by Q11 ($r^2 = .2674$).
3. Question 11 and Question 13.1: Involvement in school community and relationship with parents
 - a. Q11 and Q13.1 have a Moderate positive association ($r=.5689$) that is statistically significant ($p= 0.008845642$). 32.37% of the variance in participants’ answers to Q13.1 is explained by Q11 ($r^2 = .3237$).

4. Question 11 and Question 13.8: Involvement in school community and parents being reliable advocates for me
 - a. Q11 and Q13.8 have a very strong positive association ($r = .81698$) that is statistically significant ($p = 0.0000110262$). 66.75% of the variance in participants answers to Q13.8 is explained by Q11 ($r^2 = .6675$).
5. Question 11 and Question 13.10: Involvement in school community and growth mindset about future achievement (“I believe all reasonable pursuits are achievable to me if I work hard”)
 - a. Q11 and Q13.10 have a moderate positive association ($r = .4538$) that is statistically significant ($p = 0.044464073$). 20.59% of the variance in participants answers to Q13.10 is explained by Q11 ($r^2 = .2059$).
6. Question 12 and Question 13.1: Involvement in education at home and relationship with parents
 - a. Q12 and Q13.1 have a strong positive association ($r = .6248$) that is statistically significant ($p = 0.003227339$). 39.04% of the variance in participants answers to Q13.1 is explained by Q11 ($r^2 = .3904$).

CHAPTER SIX

Analysis and Trends

Demographics

Because this study is particularly dealing with human self-reflections, it is important to note the demographic background of each respondent in order to understand the context of their responses. I was able to see several trends emerge from the demographic data we collected at the beginning of the study. Notably, I saw that regardless of first language learned, hearing technology usage, language used with parents, school setting, residential proximity to parents, and/or age of onset of hearing loss, almost every participant (all but one) listed ASL as their language of preference (alone or along with written English). This trend demonstrates the advantage ASL has from being a natural, 100% accessible language for Deaf and Hard of Hearing users. Even if they did not learn ASL until later in life, if their parents knew no signs, or if they have had multiple hearing technologies, participants consistently reported that they are most comfortable expressing themselves in ASL. Another notable trend was that the largest demographic categories were the 46–55-year-old age range. This age range is important because of the historical/cultural setting in which these participants grew up. 46–55-year-olds would have been school aged during the 1970s and 80s, which was a period characterized by a large push for equal access. As explained in Chapter 2, the rise of Total Communication in the 1970s, the Individuals with Disabilities in Education Act in 1972, and the addition of the Least Restrictive Environment clause in 1990 led to a wave of inclusion and mainstreaming in the US. It is possible that these educational

trends influenced this generation of Deaf students to feel less connected socially and culturally to the Deaf community, which for other generations of Deaf students was a cornerstone support system during their childhood development.

Other trends the data showed included an even assortment of participants who use hearing aids and participants who don't, and an even assortment of first languages.

Having participants from a variety of backgrounds and experiences is important for eliminating bias in the study. A majority of the participants who went to a Deaf residential school (for all or part of their education) lived far from their parents while attending the Deaf school. Participants explained that this distance was a barrier for their parents being involved in their education, despite their good intentions and efforts.

Finally, 95% of the 20 participants reported that the onset of their hearing loss was during or before early childhood, meaning that they should have been receiving Deaf Education services throughout their whole schooling experience.

Language Proficiency

One significant trend in the language proficiency question results was that regardless of first language and language of preference, all 20 participants reported having sufficient, fluent, or native level ASL proficiency. This is noteworthy because despite their first language, parents' language use, or the language philosophy of their school, all of the participants learned ASL to a high proficiency level. Furthermore, the participants all reported having English proficiency that was equivalent to that of a native user or proficiency that is fluent or sufficient/effective in all areas of professional, social, and practical usage. It is clear from their self-reflections that fluent bilingualism in ASL and English is important to the participants. It is feasible that this value may have been

instilled in the participants through family encouragement or necessity, school expectations, or personal/social ambitions. However, a couple of participants and people who decided not to participate still commented that they wished the questionnaire had been conducted in a live interview format in ASL rather than the written English format so they could better express their experiences.

Parental Involvement

Overall, there was a pattern of lower parental involvement in the school community than in the participant's education at home. As it was described in the questionnaire, parental involvement in the school community could look like volunteering, leading, serving, or participating. On the other hand, parental involvement in the participant's education at home could involve monitoring grades, helping with homework, reviewing what was learned at school, creating games for continued learning, guided reading, family/parenting classes, working with an early intervention specialist...etc. Of the 20 participants, 15 (75%) reported that their parents were involved more than average or very involved in their education at home, whereas only 12 participants (60%) reported their parents being involved more than average or very involved in their school community. Based on the Hoover-Dempsey and Sandler's research on parental involvement, the difference in the levels of involvement for these two categories can be explained by a web of factors. Namely, their motivational beliefs (such as their parental role construction and self-efficacy for aiding their student's success), their perceptions of invitations from the school, the teachers, and/or their child for involvement, and their perceived life context in terms of their knowledge and skills, and their time and energy. If parents do not believe it is their place to be involved at

school (role construction), they do not feel welcomed by the classroom teacher or school policies, or they do not believe they can help the students succeed with the knowledge they have (self-efficacy and life context), they are far less likely to become involved. Whereas at home, parents may feel that it is more their responsibility to encourage students in their academics, feel more comfortable knowing they do not need an invitation in their own house, and be more willing to give it attention on their own time.

Scaled Question Correlations

Overall, only six questions' correlations were statistically significant according to their p-values. This trend of high p-values could be caused by multiple factors, most significantly, the small sample size (20 participants). In general, if a sample size is larger, it will have a reduced impact of random error, making the results more reliable (the p-value will decrease).

From the six statistically significant correlations, three showed a relationship involving the level of parents' involvement in their school community. Most notably, A participant's agreement with the statement, "My parents have been reliable advocates for me when unfair obstacles have gotten in the way of my success" (Question 13.8) had a very strong positive relationship with the level of their parent's involvement in their school community (Question 11), meaning that when one increases the other reliably does also. This does not necessarily mean that parental involvement causes students to believe that their parents are reliable advocates for them, however, there is sufficient evidence to conclude there is a linear relationship between the two. One reason this relationship could exist is that the more involved a parent is in the school community, the more opportunities they have to advocate for their student and their educational needs.

Though there is a strong relationship between the variables, 33.25% of the variance in their answers to the question about their parents being reliable advocates for them is left unexplained by their parents' involvement; this can be due to a number of factors. One explanation could be that studies that attempt to predict human behavior often have r^2 values of under .5 simply due to the fact that human behavior is influenced by many factors and is therefore more difficult to predict.

Secondly, a participant's agreement with the statement, "I have a strong healthy relationship with one or both of my parents" (Question 13.1) had a moderate positive relationship with the level of their parents' involvement in their school community (Question 11). Again, in this case, the variables relationship does not indicate causation, only that the two have a positive correlation. However, in this case, only 32.37% of the variance in the participants' answers to Question 13.1 can be explained by Question 11. This predictability may be low, however, as previously stated, this may be due to many natural factors of working with human participants. There are certainly many factors that influence whether one has a strong relationship with their parents, and this data shows that one third of the variance in the participants' reflections on their relationship with their parents is explained by their involvement in their school community. It is feasible that a parent participating in the classroom, in school events, in extracurriculars, and other school community settings demonstrates that they are interested in their student's daily lives and support their efforts in school. This attention would naturally foster growth in the relationship between parent and child. Further, a parent with a stronger relationship with their child could feel more motivated to become involved according to

the Hoover-Dempsey and Sandler model, so it is reasonable that these variables would have such a correlation.

Similarly, a participants' agreement with the statement, "I believe that most reasonable pursuits are achievable to me if I work hard" (Question 13.10) had a moderate positive relationship with their parents' level of involvement in their school community (Question 11). Question 13.10 assesses whether the participant agrees with a statement that is characterized by mastery-oriented achievement attributions and growth mindset about ability. This correlation is extremely important because it shows that a parent's involvement in their child's school community does indeed have a relationship with achievement attributions and ability mindset- two important aspects of middle childhood emotional development. With these variables, an even lower percentage of the variance in participants' responses to the question about hard work and achievement was explained by their parents' involvement. This means that the factors do have a correlation, but there are other factors that account for almost 80% of the variance in answers to Question 16.10 about their achievement and hard work. This low r^2 value is understandable considering the unpredictability of human success and the multitude of other factors that influence achievement.

Another significant correlation was between the participants' reflections on their parents' involvement in their education at home. The correlation between the participants' agreement with the statement, "I have a strong healthy relationship with one or both of my parents" (Question 13.1) and the level of their parents' involvement in their education at home (Question 12) was very similar to the correlation between the same agreement scale question and the level of their parents' involvement in the school community

(Question 13.1 correlation to Question 11). The two variables had a slightly stronger relationship and slightly more of the variance in the participants' answers to Question 13.1 could be explained by Question 12. This means that in regard to building a strong healthy relationship with their student, a parent's involvement at home and in their school community are both important factors, however their involvement in the students' education at home has a slightly stronger correlation. We cannot conclude that the parents' involvement is causing their relationship to improve, only that when the parent is more involved, their relationship tends to be stronger.

We also saw a significant relationship between language skills and growth mindset about ability in multiple cases. The participants' self-reflection on their English literacy skills (Question 10) had a moderate relationship with their agreement to the statement, "Most of my accomplishments so far have been due to my hard work and abilities" (Question 13.2). This question is focused on the participants' growth mindset in their reflections about their accomplishments, and it seems that their mindset is correlated with their English literacy skills. This does not indicate that English literacy skills cause one to have a growth mindset about ability and accomplishments; there could be many factors associated with developing English literacy skills that also play a role in the development of a growth mindset, such as hard work, perseverance, adaptability, and even teacher/parent support. Children who are learning a language need strong language models, which naturally requires adult role model figures to be involved in their everyday lives. These role models are found often in parents, mentors, and teachers.

Similarly, the participant's self-reflection on their ASL fluency (Question 9) had a moderate relationship with their growth mindset about grades in school (Question 14).

Again, while this does not mean that their ASL skills directly affect their grades, we can conclude that their confidence in their ASL fluency is correlated with a growth mindset about school accomplishment. As with English literacy skills, teacher and/or parental support in the form of language role models could play a large role in the development of ASL fluency, and therefore indirectly result in a correlation between the language skills and a growth mindset. If this is true, this correlation supports a strong argument for the effect that parental involvement has on growth mindset.

Short Answer Responses

In review of the participants' answers to the open-ended response questions, I saw a few trends emerge regarding their experiences. One impactful theme throughout the responses was that the smallest things can impact the relationship between a Deaf child and their parents in drastic, life altering ways. Something as insignificant as a mustache can hinder communication between a father and son so greatly that in adulthood, the son will reflect on their relationship with disappointment and regret. Another overwhelmingly present theme was that many participants explained that they were comfortable communicating their needs with their parents either through voicing or some sign communication system, however communicating their desires and goals was more difficult if their parents did not know sign language. Many said they did not feel comfortable having serious or deep conversations with one or both parents because of a language barrier. Many participants also said that they felt comfortable communicating all of their needs, goals, and desires with their parents because their parents learned ASL or some sign language. As noted earlier, multiple participants noted at the end of the questionnaire that they would prefer to do an in-person interview in ASL because they

can express themselves better in that language. These trends are significant because it shows through personal experiences that the language through which a parent chooses to communicate with their child may influence the strength of their relationship to the child. As Hoover-Dempsey and Sandler's research on parental involvement (Chapter 1) explained, a parent's perceptions about invitations to be involved is one of the main motivating factors for involvement, especially if the invitation comes from their child. If a child does not feel comfortable confiding in their parent, they are less likely to invite them to participate in their educational community. Many participants also noted other significant role models in their life who supported them and their development outside of their family. Out of the 20 participants, only seven said that their parents or their Deaf family members were impactful role models for them. As explained in Chapter 2, because such a high percentage of Deaf children are born to hearing parents, Deaf adult role models in children's lives are less prevalent, and the likelihood that a Deaf child's role model will be their parent is low. Six participants explained that they did not have any strong role models growing up, five reported that their teachers were significant role models, and two participants said the role was filled by their grandparents. These role modeling experiences from mentors other than parents seem to fulfil both qualifications the American Annals of the Deaf (see Chapter 3) specified in their study on role models as being essential factors of an impactful mentoring experience: high expectations and effective communication. As the researchers explained, like parental involvement, experiences with good role models can have a great impact on five areas of development: parental attitudes, identity development, navigating social capital, language development, and psychosocial development. I suspect these role models were even more significant to

the student especially when parental guidance was minimal or absent. In response to Question 21 about the most likely reason they did poorly on a quiz in school, a theme between many participants responses was that their lack of success was most likely due to the teacher's lack of language proficiency or teaching skills. Many other participants attributed the lack of success to misunderstanding because their interpreters used SEE/PSE instead of ASL or did not have the fluency to keep up with the lecture pacing, therefore they missed a lot of information. Despite the truth in their explanations or the injustice of the situation, these participant's responses were characterized by the learned helplessness achievement attribution pattern described in Chapter 3.

The most impactful part of reviewing this study as the researcher was reading the stories that participants shared in their open-ended responses. Beyond the trends and beyond the themes in their responses, I saw incredibly moving testimonies from the grown children themselves about their schooling, their family situations, and the systemic injustices they encountered. Below I have included anonymous quotes from the participant's answers in the short answer section with the hopes that their first-hand experiences can demonstrate, more powerfully than numbers can, the importance of a parent's involvement, communication with their Deaf child, and advocacy for their educational rights. Solutions to the difficult experiences described are not always hard to imagine, however, every situation is different and not every detail was shared in these responses. I share these quotes not to shame families or schools for the things they could have done better, but to illustrate the impact education, outreach, and collaborative advocacy can have in a Deaf student's life.

“The damage a parent’s perspective can do to a child is lifelong and takes years to overcome.”

“My dad has mustaches and his lips doesn't move much and its hard to read his lips and I rely on my mom a lot.”

“there are times my father pretend to understand me (one of my pet peeves) and my voice isn't that clear so I am not confident using my voice. I don't think my relationship with my father are quite close as my brothers are with my father. There are times I am being left out during conversation so that caused me not having the motivation to have depth conversation with my father.”

“it was hard to communicate w my mama cuz she speak Spanish and basic simple communication. My wish I could teach them sign language more when I was kid.”

“Sometimes, I am frustrated because I don't have fully access like hearing people does. I had to depending on people like taking notes for me during class. I know they didn't write down everything. There are many holes, or missing information. I would instead to write my notes, but deafness is a barrel between me and complete information.”

“from the age of 2 to 9th grade, it was hard trying to grasp of what its being said in class. The students questions/answers. The teachers questions? I missed out A LOT. It frustrated me.”

“when I went to Residential deaf school and it was hard for my parents to get involved because of long distance.”

“They didn’t [support my learning at home]. Just took me to get clothes is supplies. That’s it.”

“I had to study and work a little harder to make sure I had equal opportunities as my classmates. When I graduated I had to do more to prove my abilities. It was exhausting after 14 years so I retired from aviation earlier than I wanted to. My experience and struggles have made me who I am today.”

“Challenges almost always overwhelm me. My first thought is “I can’t do this”. I have difficulty using coping skills. My feeling of “not being good enough” often overcomes me even if I have the skills for the challenge if I would just focus and try.”

“I tried so hard to fit in with hearing peers and sports. I worked so hard to be well-like a person. Communication is a big barrier even though I speak well but I missed out a lot.”

“I had NO Deaf role models until college level which was when I learned signs. I never met another Deaf person until I was in college.”

“To be honest, I don't really have [a role model]. However, unless Jesus Christ counted as a role model. For most of my life, I was uncertain about what to

do with my life until I got closer to God. He gave me a purpose in life, and then I am still following it.”

“I was stuck in the hearing world fully believing that I didn’t belong in the Deaf community. As I got older I straddled both communities never finding my niche in either.”

“My mother know signs...it help me so much! She was the one who encouraged me go to Gallaudet University!!!”

“my parents are deaf as well. So, yes, I find it really easy to communicate my goals, needs, and desires with my parents, as they know what it's like being in my shoes.”

“When I was baby, my parents labeled almost everything in the house in written English in order to expose me to written English early. They read books to me every night. They made me to alternate between viewing the English text and viewing them signing the story. When I was in elementary school, whenever I needed to communicate with a hearing person, my parents pushed me to do it myself without relying on them for interpreting. Of course, in some situations, they would help me.”

“My parents decided to move to another state for a better Deaf school. My parents were involved in that school too. My mother joined the school's bi-bi training for the faculty even though she didn't work there. They met with my

teachers many times in order to ensure that I was on the right track in terms of my educational development. When I decided to transfer to a public school in my second year of high school, my parents fully supported me. They continued to be very involved in my IEP meetings and helped me to get all the accommodations I needed.”

“My parents has always support me... even changing my interpreter preferences. They were always there for meetings and ARD/IEPs. They even check on my report cards and gave me compliments or feedback. They have always my back on whatever I felt that need to be changed...”

“ASL does make difference in my life! what a life change for me as long as Im in deaf school! I'm grateful that I had gone to deaf school!”

“They were, without fail, interested in everything I did. I've always felt supported by both of them - their love for me was unconditional.”

“I know my rights in Regard of my needs ,rights, and laws. I learned from my parents to overcome all challenges I faced.”

“I had a good support system and I had a good mentor who helped me so much. Even though I felt discouraged, but I never stopped trying and kept showing up.”

Figure 3: Anonymous Excerpts from the Short-Answer Responses

CHAPTER SEVEN

Conclusions

Implications

It is clear from previous research that a parent's involvement in their child's education is extremely important for a student's success, and we have seen in this study that their involvement is also correlated to the child's emotional development. We have also seen the correlation between a parent's involvement and the relationship they have with their child, and the lack of parental role models in Deaf children's lives.

The question we must ask next is what the implications of these findings are- how must we adjust our system to improve the rate of parental involvement for the benefit of our students' development and success. Hoover-Dempsey and Sandler's research gives us a clear and effective model for encouraging parental involvement in the school community for education programs. The factors they describe as being the most influential in encouraging parental involvement are ones that could be relatively easily to adopt by teachers and programs to increase the amount of parental engagement in the classroom and school community. Their research is very clear about the importance of invitations to involvement in making parents feel welcome and motivated to become involved. It is essential that education programs and teachers prioritize these efforts and do not brush off this responsibility. Furthermore, Hoover-Dempsey and Sandler explain that a parent's understanding of their role in their child's education and their concept of the time and energy they have to give are other very significant motivating factors that education programs and teachers can influence. Outreach and intervention play a huge

role in developing parents' perceptions of their role and availability. When parents understand the impact, they can have in their student's success and development, their motivation and willingness to participate increases significantly. When presented with options of efforts to become involved with in the school community and ideas for how to support their child's learning at home, parents may feel more knowledgeable and capable of taking on that role. It is essential that intervention/outreach programs and teachers provide parents with this support, so they are prepared to be advocacy partners in their child's education. Hoover Dempsey and Sandler's "Strategies to Increase Schools' Capacities for Inviting Parental Involvement" provides ideas for outreach programs and teachers in their efforts (see Figure 2).

Other implications for those who are not educators or parents could include being an eager audience for the testimonies Deaf students share about their schooling and upbringing. Carl Rogers, one of the founders of humanistic psychology and developer of the client-centered approach to psychotherapy, put it this way, "We think we listen, but very rarely do we listen with real understanding, true empathy. Yet listening, of this very special kind, is one of the most potent forces for change that I know."³⁷ If there is anything I believe the Hoover-Dempsey and Sandler model left out of the collection of motivating factors they researched it was this: listening to the stories of others and hearing their first-hand accounts of the impact certain things have had in their life. If we have no other power to influence systems from our professional roles, we have the power to be an ally and an advocate- this role I believe is equally as, if not more, important in bringing about change.

³⁷ Rogers, C. R. (1975). Empathic: An Unappreciated Way of Being. *The Counseling Psychologist*, 5(2), 2–10. <https://doi.org/10.1177/001100007500500202>

Limitations and Future Research

Limitations of this study included that the questionnaire relied on self-reported information and reflections. This format may invite some amount of bias due to human's tendency to be dishonest for the purposes of likability and to misremember details about their past. We attempted to minimize this bias by ensuring the participant's anonymity through the informed consent process, and by providing examples and descriptions throughout the questionnaire of concepts to aid the participant's memory and understanding. Another limitation lies in the nature of the regression analysis we conducted; correlation analysis cannot be used to prove a cause-and-effect relationship between two variables, only that a linear relationship does exist. This limited our analysis to conclusions regarding correlations but did not eliminate other factors that may influence the variable, or confounding variables. Lastly, our recruitment process for participant selection was not perfectly random, as participants were found through a variety of means: online recruitment, local advertising, recruitment in person at large Deaf events, recommendations from the thesis advisor...etc. We attempted to maximize the randomness of our recruitment by recruiting in a variety of locations, communities, and age groups.

As the data showed in Chapter 5, the response rate for this study was particularly low. Even if potential participants expressed their interest, praised the importance of a study on this topic, and/or committed face-to-face or over email to completing the study, they often ceased to return correspondence. In a larger study, this tendency would be insignificant and almost expected, however, with a study this size in a smaller population from a collectivist community, this struggle was quite unexpected. Some factors that may

have influenced a potential participant's decision not to commit could be the written English online medium of the study, unclear perceptions of the time commitment, or other conflicting life circumstances. In future studies these factors may need to be approached differently. For example, Deaf people tend to be more comfortable using ASL to express their thoughts and feelings (almost 90% in this study). A live interview setting would allow participants to tell their experience without the frustration of having to express themselves in a language that is not their first choice. They may be able to give a more detailed explanation or clearer picture of their relationship with their parents growing up and their mindsets about ability, as well as be more motivated to participate in the research. Furthermore, reading the stories the participants shared in their responses was the most impactful part of this research project for me. I feel that if a study of this nature is going to impart change on the perspectives of schools and parents, it will be from the powerful stories told from Deaf adults of their firsthand experience. I believe that the best results would be captured by conducting two independent studies: one study focused on the quantitative questions with a greater sample size, and another focused on the qualitative questions in a live interview format with a smaller sample size. A qualitative interview setting can take into account other variables such as other significant role models or parental figures, that could have impacted the participant's socio-emotional development. A larger sample size for the quantitative portion would most likely improve the p-value as well, making the results more statistically significant overall.

Another direction to take this research in future studies could be a comparison between the levels of parental involvement in different types of schools or education

models. Some research questions to pursue may include, do parents tend to be more involved in their child's education if they go to a local day school program of the Deaf or if they go to a residential school for the Deaf? Which schools are already successful in encouraging strong parental involvement and which schools could improve their efforts for the benefit of their students? Deaf Students tend to move between different schools more than once during their education instead of remaining in one district their whole experience; does this instability impact a child's socio-emotional development?

Final Thoughts

It would be naive and irresponsible to assume that the level of involvement a parent chooses to take on in their child's education is simply their unchangeable personal decision, or that parental involvement is just an unfortunate, but unchangeable trend in society, or that efforts to encourage parents to become involved are simply another task school boards put on a teacher's to-do list to uphold their reputation in their community. It is easy for a hearing person with no experience attempting to understand the Deaf perspective to take an attitude of pity towards Deaf children and their education. As a hearing person myself, I witness daily the tendency of people to feel like they are far removed from the situation, like even if they wanted to be an ally, they would not hold any influence, like it is surely someone else's fate to take action. In psychology, this assumption is called the "Bystander Effect," and it is known as a dangerous inhibitor to a person's willingness to help another person. Taking a *c'est la vie* attitude about such a significant factor of child's development would be a dangerous error. In *What Happened to You?* by Bruce D. Perry and Oprah Winfrey, Winfrey explains that "the way you treat a child, from the time that child is born, is what sets them up to either succeed or

struggle”³⁸. As educators, as school systems, as parents, as humans, we have a responsibility to our students to seek out the best methods for supporting their success and then pursuing those methods with urgency.

³⁸ Perry, B. D., & Winfrey, O. (n.d.). *What Happened to You?: Conversations on Trauma, Resilience...*. Retrieved January 12, 2023, from <https://www.goodreads.com/book/show/53238858-what-happened-to-you>

APPENDIX

APPENDIX

Questionnaire Content

Background/demographic questions (select all that apply/multiple choice)

1. Age

- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56-65
- ☐ 66+

2. Age of onset of hearing loss

- ☐ Birth
- ☐ Early childhood
- ☐ Late childhood
- ☐ Adolescence
- ☐ Young adulthood
- ☐ Adulthood
- ☐ Other ____

3. Do you use any of the following hearing technologies (select all that apply)?

- ☐ Hearing Aid(s)
- ☐ Cochlear Implant(s)
- ☐ Assisted Listening Devices

- Other ____
- None

4. Which of the following represents your language preference?

- American Sign language (ASL)
- Spoken or Written English
- Another signed communication system (PSE, SEE-I, SE-II, Cued Speech...etc.)
- Spoken or written Spanish
- Mexican Sign language (LSM)
- Other ____

5. What is your first language?

- American Sign language (ASL)
- Spoken or Written English
- Another signed communication system (PSE, SEE-I, SE-II, Cued Speech...etc.)
- Spoken or written Spanish
- Mexican Sign language (LSM)
- Other ____

6. What languages do your parents use to communicate with you and/or others?

- American Sign language (ASL)
- Spoken or Written English
- Another signed communication system (PSE, SEE-I, SE-II, Cued Speech...etc.)

- Spoken or written Spanish
- Mexican Sign language (LSM)
- Other ____

7. What type of school did you go to (select all that apply)?

- Residential Deaf School
- Day School Program for the Deaf
- Mainstream Schooling
- Other ____

8. Did your family live in the city/area where you went to school?

- Yes
- No
- Other ____

Rated questions

9. Please rate your own language skills in the following area: ASL Fluency

- 0- Unable to function in the language
- 1- Able to satisfy routine travel needs and minimum courtesy requirements
- 2- Able to satisfy routine social demands and limited work requirements
- 3- Able to sign ASL with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics

- 4- Able to use the language fluently and accurately on all level normally pertinent to professional needs
- 5- Language proficiency equivalent to that of a sophisticated native signer.

10. Please rate your own language skills in the following area: English Literacy Skills

- 0- Unable to function in the language
- 1- Able to satisfy routine travel needs and minimum courtesy requirements
- 2- Able to satisfy routine social demands and limited work requirements
- 3- Able to use English with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics
- 4- Able to use the language fluently and accurately on all level normally pertinent to professional needs
- 5- Language proficiency equivalent to that of a sophisticated native English learner.

11. Rate the involvement level of your parents in your education throughout your schooling, specifically their participation in your school community.

- Uninvolved
- Somewhat involved (attending and/or observing)
- Involved more than average (volunteering and/or serving)

- Very involved (leading and/or participating)

12. Rate the involvement level of your parents in your education throughout your schooling, specifically by creating and encouraging a learning environment at home.

- Uninvolved
- Involved less than average (observing and checking in on your academics...etc.)
- Somewhat involved (asking and reminding you about academics, initiating conversations about school and extracurriculars...etc.)
- Involved more than average (interest in your academics, initiating conversations about school and extracurriculars, encouraging hard work and achievement, offering help when needed...etc.)
- Very involved (involved in your academics such as by monitoring your grades, helping with homework, reviewing what you learn at school, creating games for continued learning for early education and development, reading with you, family/parenting classes, working with an early intervention specialist...etc.)

13. Strongly Agree---Strongly Disagree; N/A

1. I have a strong healthy relationship with one or both of my parents.
2. Most of my accomplishments so far have been due to my hard work and abilities.
3. Most of my accomplishments so far have been due to uncontrollable factors.

4. Times in my past when I have not succeeded have been due to an uncontrollable lack of ability.
5. Times in my past when I have not succeeded were due to my insufficient effort.
6. I see failure as an opportunity to grow my skills and abilities.
7. Times in my past when I have not succeeded have limited my opportunities and led me to pursue other things that are within my abilities.
8. My parents have been reliable advocates for me when unfair obstacles have gotten in the way of my success.
9. If I do not know how to succeed in something, I usually ask for help.
10. I believe that most reasonable pursuits are achievable to me if I work hard.
11. I believe that many of my accomplishments were due to luck or good fortune.

Multiple Choice

14. Which of these statements best aligns with your perspective?
 - My grades in school could have been better if I had tried harder.
 - My grades in school could have been better if I had better teachers or went to a better school.
 - My grades in school could have been better if I was naturally smarter.

Open-Ended Response Questions

15. Please describe how you usually communicate with your parents. Did you find it easy to communicate your goals, needs, and desires with your parents? Why or why not?
16. Please describe your parents' involvement in your school community growing up. (Feel free to use questions 14 and 15 to help you think of ways they were or were not involved).
17. Please describe any ways through which your parents supported your learning at home throughout your schooling. (Feel free to use questions 14 and 15 to help you think of ways they were or were not involved).
18. In your adult life, how do you tend to respond to challenges in school or in other situations? Please explain. (How do you feel? What do you do?)
19. If you did poorly on a quiz in school, what was the most likely reason you did not succeed (lack of effort, lack of ability, the teacher did not cover the material well enough...etc.)?
20. Please describe the educational philosophy and communication method of your school (manual, oral, bilingual-bicultural, simcom, ASL, spoken/written English...etc.).
21. Please describe your role models growing up and how they impacted you.
22. Is there anything else you would like to share, or any questions/concerns you have about the questionnaire?
23. What is a good address for us to mail your thank you gift to?

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