Factors Affecting the Educational and Personal Success of

Deaf or Hard of Hearing Individuals

by

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Factors Affecting the Educational and Personal Success of

Deaf or Hard of Hearing Individuals

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ABSTRACT

The purpose of this research study was to examine the support strategies and mechanisms that led to academic and personal success for deaf and hard of hearing individuals. Historically, deaf or hard of hearing students have struggled to meet their personal or academic goals within postsecondary educational institutions. For example, individuals who have a hearing loss represent only 4.8% of the California community college campus student population. This study describes how deaf or hard of hearing individuals utilized effective support strategies to assist them with meeting their personal and/or academic life goals.

It is important to understand the conceptual framework as it specifically relates to goal attainment for individuals with hearing loss in order to ensure that higher education institutions are providing the support needed to assist these individuals with meeting their personal, professional, and academic goals. This study utilizes the social capital theory as the framework to better understand those influences that led to personal or academic success for deaf or hard of hearing individuals who participated in this research.

A grounded theory method of inquiry was conducted to analyze the data for this study. This research approach was selected to investigate learning outcomes for deaf or hard of hearing individuals who obtained gainful employment, completed a workforce training program, or a degree in higher education. One-on-one semi-structured interviews were conducted with individuals who are either deaf or hard of hearing who had attained personal or academic success as defined by the study criteria.

Specifically, participants were purposefully selected based on being prelingually deaf or hard of hearing. Consideration was given to the following characteristics in an effort to obtain maximum variation in the study: race; ethnicity; gender; age; and
communication modalities. Additional criteria for participation in the study included having either a unilateral/bilateral severe to profound hearing loss or a unilateral/bilateral moderate hearing loss, and the use of a primary communication modality which involved American Sign Language or another signed system, or the use of spoken English.

Twelve themes emerged as a result of the data analysis, with 10 of these seen as significant factors that led to the participants reaching goal attainment. Based on the findings, recommendations for practices and program development were made for institutions of higher learning, and primary and secondary educational settings, to assist deaf or hard of hearing individuals with the attainment of communication access, and personal and academic success.
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CHAPTER 1—INTRODUCTION

Today, approximately 66% of all community college students will not complete a degree in the eight years after completing high school. Reasons for non-degree completion point specifically to incoming students being underprepared for college level math and English (Rosenbaum, Redline, & Stephan, 2007). Furthermore, Choy, Horn, Chun, and Nouri (2000) suggest that a large population of these students will also not have passed the California High School Exit Exam (CHSEE). California community college students are finding themselves underprepared for college level coursework and too often are caught in a cycle of remediation classes.

Deaf or hard of hearing students (D/HOH) make up 4.8% of the California community college campus student population (Choy, Horn, Chun, & Nouri, 2000). Services provided to this population of students including sign language interpreting costs, continue to rise. During the spring of 1998, the California State Chancellor’s Office collaborated with the Workload Task Force by developing a system to track the delivery of services for disabled students, training community college staff to use the system, monitoring the data collection, and analyzing the data. The development and implementation of the system was to calculate the relative cost of providing services to students with various disabilities using data collected on all services delivered during the spring, summer, and fall of 1999. The data collected and analyzed determined that the average cost per term of serving a student with a prelingual hearing disability far exceeded the cost of serving a student in any other category ($1,356 versus $73–$221 for
the others). This is largely because of the high level and high cost of interpreting services they require (Choy et al. 2000).

Deaf or hard of hearing individuals, specifically those with congenital hearing loss, are one of many underrepresented groups among people with disabilities. As such, they too rely on support services from educational institutions when pursuing a postsecondary education. It is important to understand the conceptual framework as it specifically relates to the personal or academic success for individuals with hearing impairments in order to ensure that higher education institutions are providing the support needed to assist these individuals with meeting their personal, professional, and academic goals.

Congenitally (D/HOH) students face similar challenges as do other students whose first language is not spoken English, thus requiring basic skill courses that are difficult to pass. Compounding the issue is the fact that most college courses are taught in spoken English. Subsequently, deaf or hard of hearing students receive classroom instruction with the use of an interpreter to facilitate communication with their instructors and classroom peers.

Too often, (D/HOH) students face academic and personal obstacles which can prevent degree completion. According to the Gallaudet University Research Institute, 50% of deaf or hard of hearing students ages 17 and 18 had a fourth grade reading level (Gallaudet Research Institute, 1996). Consequently, English reading and writing at the postsecondary level can present a barrier, thus preventing this population of students from reaching their academic goals.
According to Bochner and Algertini (1988), language acquisition is strongly influenced by the integrity of the linguistic environment to which the learner is exposed during infancy and early childhood. Further, the influence of linguistic intake in combination with the learner’s age is so powerful that the interaction between these variables largely determines the course and extent of language acquisition. As a result, deaf or hard of hearing children must have early language experiences that happen naturally (in their natural/visual language) and promote long-term capabilities for the successful development of English as a second language reading and writing skills. Studies of deaf students’ attainment in the acquisition of English language and literacy skills have been conducted over the past century consistently showing that most prelingually deaf children enter adolescence and young adulthood without having achieved proficiency in English.

O’Connell (2007) reported that the California Department of Education (CDE) found that only eight percent of deaf students and 15% of hard of hearing students scored proficient or advanced on the California Standards Test for English-language arts. In math, only ten percent of deaf students and 18 percent of hard of hearing students scored proficient or advanced. As a result, deaf or hard of hearing students entering postsecondary institutions are underprepared to meet the academic rigor they will encounter in these educational settings. O’Connell noted that CDE further suggested that a hearing loss in and of itself does not pre-determine a deaf or hard of hearing child’s academic success but rather it is the lack of early access to language in the environment that the child is exposed to during infancy. Consequently, CDE highlighted the benefits of early exposure to language for children who are deaf or hard of hearing as it relates to
not only successful language acquisition, but also the sustainment of literacy
development.

“It is a well-established fact in the field of deaf education that the deaf students
who are more likely to succeed academically are those children who are born to deaf
parents,” (O’Connell, 2007, p.1). Children who are born into homes where they have
access to the visual language of their families (i.e., American Sign Language) acquire that
language at the same rate that hearing children of hearing parents acquire spoken
language. Because they enter school with age-appropriate language skills, they are well
prepared to develop literacy skills in a second language, English.

A bilingual/multicultural model has been used in the classrooms of deaf or hard of
hearing children. This model attempts to bridge the gap between emerging English
literacy acquisition and the deaf child’s natural/visual language, American Sign
Language and the language of his/her family. Supporters of bilingual/bicultural
education believe that providing early, comprehensible access to a visual first language,
second language acquisition will take place more naturally and successfully. Cummins
(1981) suggested that in order for a second language to be acquired, a child’s first
language must be intact.

According to Meadow (2005), ten percent of deaf children are born to deaf
parents, therefore 90% of deaf or hard of hearing children are born to hearing parents.
Based on the aforementioned, it is highly probable that a deaf child’s first exposure to
language will not be his/her natural/visual language American Sign Language (ASL) but
rather a fragmented model of the spoken language of the hearing parents. Thus begins
the perpetuating cycle of language difficulties for children with hearing loss.
As these children move through elementary school, their experiences with the development of English reading and writing skills may continue to be problematic. Although teachers of the deaf have the education and training to develop and implement strategies which will assist these students with the development of English literacy, it appears that some deaf or hard of hearing students continue to struggle at the secondary and postsecondary levels with fundamental literacy skills.

Adding to the complexity of this issue is the lack of exposure to appropriate language models for many deaf students attending school. Unless the child is a student at a residential school for deaf, then interactions with peers, teachers, and staff may continue to provide deaf or hard of hearing students with inconsistent language models.

The lack of early language experiences are often the precursor to delayed English literacy skill development that can be seen in middle school, high school, and finally in postsecondary education. A certain level of English fluency is a necessity for students wishing to obtain a postsecondary education. College curricula is accessible based on a person’s ability to read and write the majority language, English. Consequently, deaf or hard of hearing students often face language barriers that prevent them from succeeding in postsecondary education, which in turn may limit their personal or academic opportunities.

Problem Statement

Remediation in higher education institutions has become a complex issue which has uncertain solutions and critical repercussions for the colleges, students, and society as a whole (Oudenhoven, 2002). The Basic Skills Initiative (BSI) was designed in an attempt to address and effectively bridge the gap between levels of adequate preparation
and the actual academic performance of California community college students. The BSI includes deaf or hard of hearing students in the overall community college student count. These students may struggle with remedial coursework due to their limited English reading and writing skills.

The problem that this study will address is directly related to (D/HOH) students, specifically prelingual (D/HOH) students from hearing families who pursue higher education and do not reach degree completion or personal goal attainment. This may be due at least partially to their need for remedial coursework in English.

Due to the fact that most of these classes are not accessible in their natural, visual language, American Sign Language, deaf or hard of hearing students’ academic success may be compromised not only by remediation in Basic skill courses, but also by the non-existence of curriculum which utilize a direct instruction model.

According to National Health Interview Survey (NHIS) and the Survey of Income and Program Participation (SIPP), an estimated one-half million Americans have severe to profound hearing loss (those most likely to be called deaf), 8% of whom are children (3-17 years) and 54% of whom are adults 65 years of age or older, (Mitchell, 2004). In regards to the number of deaf or hard of hearing students enrolled in postsecondary education institutions in the United States, 20,040 students were identified as deaf or hard of hearing during the 1992-93 academic year. 4,520 were deaf while 7,770 identified themselves as hard of hearing, (Statistics, 1994). What has remain stagnant is the academic performance of deaf or hard of hearing students who leave high school. Allen (2001) indicated that between 1983 and 1990 there were minimal gains in the achievement levels of deaf or hard of hearing students aged 17 and 18. Additionally,
During the seven year time span, approximately half of the deaf or hard of hearing students leaving special education programs read below the fourth grade level (Allen, 2001).

During the Fall 2007 semester, 17,301 students were enrolled at Bayside Community College in Southern California. Of those students, 825 (4.8%) were identified as having a disability. Subsequently, in regards to class completion, students with disabilities completed 61.3% of their courses in contrast to 67.5% completion rate of courses taken by their non-disabled counterparts (Bayside Community College, 2008b).

In Spring 2007, 579 degrees and 275 certificates were awarded. Of those awards, 36 (6.2%) of students with disabilities completed degrees and 9 (6.9%) students received a certificate, (Bayside Community College, 2008a).

To provide an example of goal attainment regarding students who are deaf or hard of hearing, it should be noted that from Spring 2000 through Spring 2005, there were 72 deaf or hard of hearing students who attended Bayside Community College in Southern California. Of those 72 students, only two students successfully earned a degree. Additionally, of the twenty-six deaf or hard of hearing students who declared a goal of earning a degree, zero actually earned a degree, (Bayside Community College, 2008b).
Research Questions

Findings from the existing literature regarding the lack of success in academic achievement for deaf or hard of hearing individuals lead to two research questions:

1. What are some of the strategies and support mechanisms used by deaf or hard of hearing individuals that lead to academic or personal success?

2. What are the implications for practice in institutions of higher education in serving deaf or hard of hearing individuals to ensure success?

Significance of This Study

Student equity and access are fundamental to the goals of postsecondary education. It is equally important that students are successful in meeting their personal and academic goals. Subsequently, deaf or hard of hearing students are not attaining their educational goals at rates comparable to their hearing counterparts.

Lang (2002) discussed factors which affect success in higher education for these students. He stated that there are numerous of reasons why deaf students do not complete baccalaureate and other degree programs, including inadequate academic preparation and the challenges of learning through support services. Furthermore, leaves of absences, program lengths, difficulty in carrying full load courses, dissatisfaction with social life, and changes in career interests were identified as additional barriers to degree completion (Lang, 2002). Although, access and support services are provided to students with hearing impairments (i.e., note taking assistance, preferential seating, classroom amplification, sign language interpreters, real time captioning services, etc.,) the failure rate for deaf or hard of hearing students continue to be alarming. For example, in the United States only one of every four deaf or hard of hearing students graduates from
college. This graduation rate of approximately 25% is about the same for both two year and four year programs in the United States (Lang, 2002).

Another critical factor to examine in regards to the personal or academic success of individuals who are deaf or hard of hearing is the idea of social capital. Condeluci, Ledbetter, Ortman, Fromknecht, and DeFries (2008), defined social capital theory as an array of support offered by friends, family, and acquaintances and is available to all individuals including those with and without disabilities. It has been suggested that social capital may be limited to people with disabilities and therefore may contribute to their inability to develop networks and or friendships. Therefore, social capital has often been described as a universal concept (Condeluci, et al. 2008). Social capital and the direct relationship to individuals with disabilities will be explored further in the literature review.

This study will focus on deaf or hard of hearing individuals who have attained personal or academic success. The study will utilize a grounded theory approach of inquiry to collect and analyze research data. One-on-one interviews with deaf or hard of hearing individuals will be conducted as part of the research process. Based on the research data findings and implications, recommendations will be made for program development and service delivery that may contribute to the personal and academic success of deaf or hard of hearing students within primary, secondary, and postsecondary educational settings.

Methodology

The intent of this study is to gain information regarding the best practices for academic and personal success for deaf and hard of hearing individuals. Because of the
scarcity of literature on this topic, a qualitative grounded theory design is appropriate for this investigative research study. Manning (1992) notes that the object of qualitative research is to understand the meaning that respondents interviewed and observed made of their experiences. Manning further suggests that through qualitative research, information completely unanticipated by those soliciting input can be collected and examined. It is for these reasons that one-on-one interviews with deaf or hard of hearing individuals who have attained personal or academic success will be used as part of the data collection process. A qualitative grounded theory method of inquiry is important for this study because it provides a foundation to better understand the perspective of others. According to Charmaz (2006) a grounded theory approach forms the foundation of theory and analysis and thereby generates the concepts we construct.

Limitations of the Study

Limitations to this study may be the use of an interpreter as a facilitator of communication between myself and the interviewees. Participants will have the opportunity to choose whether he/she wishes to utilize the services of an interpreter or to communicate directly with the investigator due to the fact that I am fluent in American Sign Language. This will be done in effort to create an environment that is comfortable and engaging for the participants. Additionally, the role of the researcher as a professional in the field of disability support services may also contribute as a limitation to the study due to my inability to be completely objective. These variables may change over any given period of time.
Delimitations of the Study

A delimitation of this study is that the unit of analysis will be confined to deaf or hard of hearing individuals who have completed postsecondary education, a training program, or who have attained some other level of personal or academic success. This study will not account for other students with disabilities who have also faced challenges in higher education.

Role of the Researcher

My background includes being a Disabled Students Programs & Services Specialist and a former Deaf Special Needs Teacher, thus there is, on my part a fervent interest in the success of all students including those with disabilities. My education and training in deaf education, was the basis for the decision to investigate the personal and academic success of deaf or hard of hearing individuals as a dissertation topic. My position within a community college environment provided access to deaf or hard of hearing individuals and information. Based on my passion for this topic, I am cognizant not to allow that passion to influence the results of the study and that it is my responsibility to be fair. Although my education and training may be a potential bias, I will be professional and minimize any biasness related to data reporting. However, as the researcher I am also aware that because of my background in deaf education, and as a strong advocate for students who are deaf or hard of hearing in postsecondary education, I cannot be totally objective or minimize my role within the context of the study. In fact, it is my hope that the findings from this study will result in social change which positively assists deaf or hard of hearing individuals with goal attainment.
Definition of Terms

It is important to define the terminology that will be used in this study. The definition of terms will be used a key reference for terms.

**American Sign Language (ASL):** American Sign Language (or ASL) is a visual-spatial language with a structure independent of and very different from spoken English. Consequently, the word order of ASL is based on ASL structure and is different from English structure. Signers can display grammatical information with their faces, bodies, and the surrounding space (Valli, 2005). ASL contains an infinite number of sentences that can be produced from a finite set of rules with the ability to create new messages at any given time. ASL can be used to discuss a multitude of topics ranging from the concrete to the abstract, including the basic survival discussions to philosophy and physics. ASL has been used as the modality of instruction in classrooms from the preschool level through college and graduate school. ASL is composed of symbols that are organized and used systematically (Valli, 2005).

**Deaf:** The inability to hear (Stedman, 2000).

**Hard of Hearing:** A reduction in the ability to perceive sound; may range from slight inability to complete deafness (Stedman, 2000).

**Cultural Identity:** Cultural identity as it relates to deafness is defined as the use of an uppercase “D” which denotes the community of language users who are culturally Deaf (i.e., share values, beliefs, and behaviors about deafness). A lower case “d” refers to the deaf population in general and audiological deafness (i.e., the physiological condition of not being able to hear) in particular. Individuals who are deaf may not necessarily be Deaf (Valli, 2005).
**Success:** For the intent and purposes of this study, personal success has been defined as a deaf or hard of hearing individual who is employed and works a minimum of 15 hours per week. Academic success has been defined as a deaf or hard of hearing individual who has completed a degree, certificate or workforce training program.

**Summary**

Chapter 1 has provided an overview of the challenges that many students face as they enter postsecondary institutions to pursue higher levels of education. Subsequently, students within California community colleges are finding themselves underprepared to meet the academic rigor of college level courses. Students with disabilities often face these same challenges in their attempt to reach their goals. These students may spend countless semesters in remedial courses due to their lack of English reading and writing proficiencies. Obstacles such as these prevent deaf or hard of hearing individuals from degree completion or personal goal attainment.

In Chapter 2, a literature review will demonstrate the need for best practices to be developed and implemented to address the English literacy needs of deaf or hard of hearing students in postsecondary institutions. Chapter 3 will detail the research study design along with the study sample, data collection procedures, and data analysis methods that will be used to further investigate the personal experiences of deaf or hard of hearing individuals who have successfully met their personal aspirations either by obtaining gainful employment, completion of workforce training, or completion of a postsecondary degree. Chapter 4 will provide the findings for study and present the grounded theory. Chapter 5 will provide the discussion and implications of these findings, and make recommendations for future research.
CHAPTER 2—LITERATURE REVIEW

A growing segment of the student population in California community colleges are often referred to as “non traditional students.” These students are inclusive of various backgrounds, socioeconomic levels, linguistic differences, and also differ among gender, ethnicity, and abilities. Oudenhoven (2002) indicated that nontraditional students enter postsecondary institutions often underprepared for the challenges of college level course work (Oudenhoven, 2002). As a result, two-year institutions are facing new challenges that may affect the quality of education for these students.

Curry (2003) pointed out that while large numbers of nontraditional students’ transition into higher education with skill sets for the conventions of academic communication, discussions should be taking place which directly focus on the need for teaching academic literacy to students in postsecondary settings. For example, nontraditional students who are second language learners may face additional challenges as they attempt to access primary instruction being conducted in English in college level classrooms. In addition to their need to navigate through remedial coursework, these students may be at a disadvantage linguistically within the educational environment.

Deaf or hard of hearing students may face those same challenges while trying to learn a language they cannot hear. Within the linguistically diverse framework, deaf or hard of hearing students in higher education struggle with English literacy skills in their efforts to meet personal and professional goals. These students often enter postsecondary institutions with challenges related to English as a second language.
The topics that will be covered in this literature review include: language acquisition; literacy skill development; bilingual/multicultural approaches to literacy; deaf or hard of hearing students’ reading levels; and challenges of delayed development of literacy skills among deaf or hard of hearing students in postsecondary education. Additionally, this literature review will discuss “The Basic Skills Initiative” and best practices used in postsecondary education to address literacy issues for deaf and hard of hearing students.

Language Acquisition

The *Stanford Achievement Test 9th Edition, Form S* (1996), reported that 50% of deaf and hard of hearing students graduate from high school with third and fourth grade reading levels. Consequently, the lack of English reading and writing skills required to be successful at the postsecondary level prevents this population of students from reaching their personal and academic goals, be that workforce training or degree completion.

Children’s first exposure to language comes primarily from their parents. Given that 90% of deaf or hard of hearing children are born to hearing parents, a deaf child’s first exposure to language will be to the spoken language of their family, not his/her natural/visual language American Sign Language (ASL). This lack of initial exposure to language may lead to language difficulties for children who are deaf or hard of hearing.

It is estimated that among the 4,900 deaf or hard of hearing students aged 17 or older who graduate from high school every year, approximately 2,850 receive a diploma, qualifying them for postsecondary education, primarily two and four year colleges. The additional 2,000 students, may be inadequately served under secondary school programs.
Approximately 620 students will earn a certificate of completion; however, 600 students will drop out altogether, (Bowe, 2003). These data may imply that deaf or hard of hearing students entering postsecondary institutions are underprepared to meet the academic requirements they will encounter in postsecondary institutions.

MacSweeney, Waters, Brammer, Woll, and Goswami (2007) found that deaf children’s process for successful language acquisition is directly correlated to their preliminary introduction to signed or spoken languages. Phonological awareness also differs for deaf children as compared to their hearing counterparts. Phonology for spoken languages are based on auditory/articulatory elements, however for signed languages which are visual, these elements are hand shapes, movements, and locations (MacSweeney et al. 2007). This marks a difference in the development of early language milestones for deaf and hearing children. However, when a deaf child acquires a natural/visual language (American Sign Language) as his/her primary language, he/she mirrors the language development patterns of hearing children (MacSweeney et al. 2007).

Mitchell and Karchmer (2004) noted that only five percent of deaf children are born to deaf signing parents. These children typically learn a signed language first as their native language and therefore reach language milestones consistent with hearing children who acquire speech. In contrast, for the 90-95% of deaf children who are born to hearing parents (non-native signers), their exposure to a signed language is delayed.

Literacy Skill Development

Children who are deaf or hard of hearing live in a world where spoken language is the primary modality of communication for the majority of people. These children need to develop the skills to make meaning of the linguistic input within their social settings
and also have their desires, wants, and feelings understood by a majority of the population who do not understand their visual communication strategies.

Native signers have a well-established first language which can facilitate the acquisition of a later learned language. Literacy development is critical to a child’s ability to decode meaning and messages in their environment. Therefore, it is imperative that deaf children have immediate exposure to their accessible native languages (MacSweeney et al. 2007).

Phonological awareness for hearing children is important to examine in order to effectively compare and contrast English literacy development for deaf and hard of hearing children. Phonological awareness refers to the ability to detect and manipulate the sound structure of words independent of meaning (MacSweeney et al. 2007). Phonological awareness is a very difficult task for a deaf child due to deafness or a significant hearing loss. Similar to hearing children, if this skill is not acquired, difficulties in reading could exacerbate as they move into primary and secondary educational locations (MacSweeney et al. 2007).

Proficient literacy skill development in English is vital for deaf and hard of hearing students within the learning environment. Bilingual-multicultural education has been suggested as one approach to assist deaf or hard of hearing children with successful second language acquisition (Christensen, 2000). This model focuses on presenting English literacy (reading and writing) in an educational environment which facilitates communication through the use of American Sign Language. It should be noted that while signed languages and written versions of spoken languages have been used side by side in many classrooms in the United States and in Europe, deaf children continue to
struggle with acquiring bilingualism because they do not have a full understanding of how the two languages overlap metalinguistically (Rathmann, Wolfgang, & Morgan, 2007). This may be due to lack of fluent, consistent models in both languages. Furthermore, schools that adopt a signed bilingual framework ensure that both signed and spoken languages happen simultaneously in the classroom. However, due to a lack of applied research and educational materials, there is no clear picture of how to work on deaf children’s comparative knowledge of sign and text systematically and efficiently (Rathmann et al. 2007).

Watson and Swanick (2008) studied the interaction and effects of parents and teachers of deaf children as they worked collaboratively towards assisting young deaf children with literacy skills. They found that the teachers and parents held differing beliefs regarding practice. For an example, it was discovered that the parents and teachers did not articulate their assumptions and beliefs regarding literacy acquisition, which put the deaf child at a disadvantage for literacy development due to inconsistencies in language approaches (2008). This study revealed that any disconnect which exists between teachers and parents needs to be addressed in order to provide consistency in literacy approaches for deaf or hard of hearing children. Although dialogue continues to take place regarding various models for literacy development among deaf and hard of hearing children, there is no clear consensus as to the most effective practice currently being used in the field to accomplish this task.

Reading skills for deaf children have shown over time to not only be difficult to acquire but often do not generalize into adulthood. Deaf children lag far behind their hearing peers in reading and writing throughout their elementary, middle, high school and
postsecondary educational years (Bochner & Algertini, 1988). These difficulties have been directly related to delays in the acquisition of a spoken language.

Hermans, Knoors, Ormel, and Verhoeven (2007) suggest that in the early stages hearing children learn written and spoken words consisting of smaller elements, letters and sounds (phonological and orthographic awareness). However, children with a severe or profound hearing loss must learn how to read while also learning a spoken language (Hermans et al. 2007).

Bilingualism

In 1998, voters in the state of California set forth to abolish bilingual education by passing Proposition 227 *English for the Children* with 61% of the vote. This led to a political discord among those who advocated for English Language Learners (ELLs) and those who opposed bilingual education in favor of one year structured English immersion programs (Necochea & Cline, 2000). Thus began the cyclical approach of immersing English as a second language learners in English only classrooms to facilitate effective acquisition of the second language. Latino children within these environments often failed and were later placed in programs for the mentally retarded (Amselle, 1997). Supporters of Prop 227 argued that bilingual education had failed ESL students in their ability to be successful academically. Parents who supported bilingual education cried discrimination, and demanded that the state of California and its school districts provide their children with an education equitable to that of mainstream students.

One bilingual education theory dictates that students engage in five to seven years of instruction in their native language before being taught English. However, three quarters of all “limited English-proficient” (LEP) students are Spanish speakers; it is
argued that bilingual programs essentially utilize Spanish language teaching in its approach (Amselle, 1997). Due to the structure of these programs, many of these students drop out. In fact, the drop out rate for all Hispanic LEP students in the United States is 50 percent, higher than any other group throughout the country (Amselle, 1997). Bilingual education for second language learners has been observed by educators of the deaf who have many of the same concerns which relate to the acquisition of English among deaf or hard of hearing students.

Cummins (1981) introduced a bilingual educational model coined “The Linguistic Interdependence Model.” This model was founded upon the belief that there was a common proficiency underlying skills in all languages and that skills acquired in the first language can be used to acquire and or transfer to the second language (Hermans et al. 2007). Advocates for bilingualism in deaf education have argued that by definition of the theoretical framework which encompasses the linguistic interdependence model, skills acquired by deaf children who learn to sign should also carry over those same skills with learning to read (Cummins, 1981).

Hermans et al. (2007) postulated that, although the Linguistic Interdependence theory can account for positive correlation between reading and signing, they found three shortcomings. They indicated that the theory does not explain why this happens, does not account for average reading achievements for deaf children in bilingual programs, and does not adequately capture the learning conditions under which deaf children in bilingual programs develop a written language (2007).

Garcia (2004) noted that native language use is crucial to the attainment of a second language, and subsequently native language proficiency also contributes to
learning and second language development. Garcia further suggested that research has shown that second language learners can achieve academically if instruction is based on a solid and consistent bilingual model which incorporates content area instruction (Garcia, 2004).

Similar challenges related to bilingual/multicultural instruction of students who are not native English speakers. Humphries and Allen (2008) point out that deaf education usually employs two types of training approaches. One instructs teachers of deaf children utilizing an oral approach which does not exercise any signed languages. The second approach involves some signing, ASL or manually coded English often referred to as “simultaneous communication,” or “Total Communication” (Humphries & Allen, 2008). These two approaches have not led to fluency in English literacy skills in the education of students with severe to profound hearing loss. Bilingualism among teachers is simply not enough to meet the language demands of deaf or hard of hearing students. Teachers must also be able to recognize and respond to all forms of language variations that may be presented in the classroom. Additionally, teachers must accommodate signing and nonsigning deaf or hard of hearing children who enter the classroom setting (Humphries & Allen, 2008). Examining effective practices to developing literacy is critical to the academic and personal achievement of deaf or hard of hearing students in primary, secondary, and ultimately postsecondary education.

Deaf or hard of hearing students graduating from high school throughout the country continue to have low reading levels which prove to be problematic when attempting to reach academic and professional goals in higher education institutions. Gallaudet University Research Institute (1996) indicated that 50% of deaf or hard of
hearing students ages 17 and 18 had a fourth grade reading level. Low reading levels exhibited by deaf or hard of hearing students may be directly related to the lack of completion of high school and low numbers of deaf or hard of hearing students transitioning from high school to higher education settings (Gallaudet, 1996).

In comparison, Swanson (2008) revealed that over the past several years studies have consistently shown that fewer American students are completing high school than at any other time. Swanson (2008) indicated that 85% of high school students were graduating from high school however, after closer examination it was discovered that only about seven in 10 students were successfully completing high school. Graduation rates are lower for students from underrepresented racial and ethnic backgrounds and for male students (2008).

Based on previous literature reviewed, faculty, staff, and administration within postsecondary education settings need to engage in ways to reach out and provide effective ways to assist all incoming high school students with the necessary tools to successfully reach their academic, professional, and personal goals.

Reading Levels of Deaf and Hard of Hearing Students Entering Postsecondary Education

Bochner and Walter (2005) of the National Technical Institute for the Deaf, examined methods for evaluating deaf students’ readiness to meet English language and literacy requirements at the postsecondary level. Students were administered two set of tests, the ACT Assessment and the ESL Reading and ESL Grammar/Usage components of COMPASS/ESL. Test scores from the ACT Composite and the ACT English and reading tests were compared to scores obtained from various English language and
literacy skills. A smaller sample group of deaf students were administered the ESL Reading and ESL Grammar/Usage components of COMPASS/ESL as the second part of the research study. The scores from this assessment were measured concurrently against English skills. Overall results from these assessments determined that neither the ACT assessment nor the COMPASS/ESL alone are appropriate for the full range of deaf students seeking admission to postsecondary educational programs. Specifically, the ACT Assessment is appropriate for deaf students seeking admission to transferrable (BS and AAS) degree programs, and the ESL Reading and Grammar/Usage tests appear to be appropriate for deaf students seeking admission to nontransferable (AOS) degree programs (Bochner & Walter, 2005, p. 234).

Results from the study further indicate that when deaf students take both aforementioned assessments together, these instruments can be used as a valid and reliable resource to serve as an admissions screening assessment for the full range of deaf students seeking to be admitted to postsecondary programs. Additionally, study findings reveal that these tests may be used as a way to ensure appropriate placement in English courses for deaf and hard of hearing students entering postsecondary education.

The number of (D/HOH) students has enrolled in postsecondary institutions has steadily increased. For example, during 1992-93, 20,040 deaf or hard of hearing students were enrolled in postsecondary educational institutions in the United States. Today it is estimated that more than 25,000 students with a hearing loss are enrolled in higher education programs in this country (National Center for Education Statistics, 1999). Thousands more are attending universities in other countries. In the United States, deaf students are enrolled in a variety of programs in the pursuit of meeting their personal and
academic needs (National Center for Education Statistics, 1999). The National Technical Institute for the Deaf at Rochester New York has an enrollment of approximately 1,100 deaf students while enrollment figures at Gallaudet University in Washington D.C. report 1,300 undergraduates and 600 graduate students.

Although, access and support services are provided to students with hearing impairments (i.e., note taking assistance, preferential seating, classroom amplification, interpreters, real time captioning services, etc.,) the failure rate for deaf or hard of hearing students continues to be alarming.

Degree Completion

Degree completion among community college students has been a topic of discussion at the local, state, and national levels. Community colleges have been criticized for low degree completion rates among students from underrepresented groups (Bahr, 2007). While community colleges have been successful in providing open access to students seeking higher education, questions regarding success among community college students has sparked a debate among faculty, staff, students, administrators, and legislators.

Rosenbaum, Redline, and Stephan (2007) note that more than 80% of high school graduates enter higher education within eight years after graduating from high school. Furthermore, during the past 40 years enrollment has doubled in four year institutions, and the numbers have increased fivefold in public two year community colleges (Rosenbaum et al. 2007). In light of these high enrollment numbers, community colleges have disturbingly low degree completion rates. Surprisingly, only 34% of newly entering community college students complete a degree within an eight year window span after
graduating from high school (Rosenbaum et al. 2007). Additionally, many students leave with no degrees and often no credits (Rosenbaum et al. 2007). It is speculated that low degree completion rates could be attributed at least partially to a lack of information given to students regarding course requirements, remedial courses, degree options, realistic timetables and job payoffs (Rosenbaum et al. 2007).

Cuculick and Kelly (2003) examined graduation patterns for 905 deaf students from 1990-1998 at the National Technical Institute for the Deaf. They concluded that students with higher reading and language skills had the best overall graduation percentages. For example, comparison of recipients of different degrees-bachelor of science (BS), versus bachelor of fine arts, (BFA), associate of applied science, (AAS), versus associate occupational studies, (AOS) showed that 92% of BS and 82% of AAS graduates read at the 9th grade reading level or above versus 65% of fine arts and 47% of occupational studies graduates (Cuculick & Kelly, 2003). Furthermore, 80% of non-degree earning students read at the 9th -12th grade levels. In absolute terms, they outnumbered graduates with similar reading skills in the AAS and BFA programs combined and in the BS program. These findings indicate the need for improved counseling, placement, and retention strategies. Students performed similarly across degree categories, regardless of curriculum requirements and difficulty. Only non-degree-earning students had significantly lower grade averages.

One question that has been asked repeatedly by experts in the field of deaf education concerns the high incidence of failure for deaf or hard of hearing students in colleges and universities, given normal or better cognitive potential in these students.
Albertini and Schley (2003) explored the teaching and assessment of writing in deaf studies. They determined that aspects of form, particularly grammar are resistant to change even when deaf students write with purpose and meaning. They further suggested that grammatical and lexical information will not improve significantly without direct instruction.

Lang (2002) supports the benefits of direct instruction by noting that one of the most salient characteristics of learning by deaf students in mainstream classrooms is the students’ dependence on a third party, an interpreter to provide access to information. Subsequently, there is little direct communication between teachers and deaf students.

This idea of direct instruction draws a parallel with an English as a Second Language (ESOL) course. For example, an ESOL course being taught at one community college in the southwestern part of the United States has been designed to teach students to develop writing and grammar skills at the intermediate-mid ESOL level. Additionally, the course focuses on assisting students with acquiring academic study skills and independent work habits. One key component of the course is that students are taught grammatical structures in the production of compositions as well as developing the ability to write for meaning. The added benefit of this course as it relates to deaf or hard of hearing students is that the method of instruction is in American Sign Language. Because the course is taught in ASL, there are no interpreters in the classroom. Language happens naturally, rather than being interpreted through another channel of communication. Students benefit significantly from this method of instruction because this approach mirrors their language and cultural identity.
The Role of Interpreters and Literacy

The role of interpreters is in the early stages of being evaluated as a way to determine if there is a direct correlation between the skill level of interpreters, and the impact it may have on a deaf student’s development of English literacy skills. An interpreter’s skill level and consistency across interpreting teams are extremely important components when educating the deaf learner.

Unfortunately, little research has been published recently which critically examines the relationship between interpreting and classroom learning. The consistency in delivering content and meaning among interpreters (or lack there of) could skew a deaf students’ ability to be an effective participant in the educational process. For example, an early study reported that deaf college students learning science through a skilled interpreter scored approximately twice as high as those learning through an unskilled interpreter (Quinsland & Long, 1989).

The accuracy and effectiveness of interpreting may depend on content knowledge. Familiarity with the content may lead to more appropriate sign selections and fewer misinterpretations of a professor’s lecture emphases (Lang, 2002). In addition, an interpreter’s knowledge of the specialized vocabulary and proper names associated with a particular discipline may be more accurate and facile in terms of conveying the presenter’s information (2002).

Lang (2002) further implied that interpreters who are aware of the barriers that deaf postsecondary students experience may be more able to adapt interpreting and advise teachers and students accordingly.
Conceptually there is an underlying lack of understanding as it relates to effective educational interpreting and access for deaf or hard of hearing students in postsecondary education institutions. Winston (1995) stated, “The myths about interpreting need to be exposed before policies of inclusion through interpreting can be considered rationally” (p. 6).

As we continue to examine the role of the interpreter as a facilitator of communication for deaf or hard of hearing individuals, it is also important to discuss cultural identity for persons who are deaf or hard of hearing. In an attempt to define cultural identity among deaf or hard of hearing persons, we must examine two distinct groups. These two groups are often referred to uppercase “D”—those deaf individuals who identify themselves as culturally deaf and lowercase “d”—those deaf or hard of hearing individuals who identify themselves as part of the mainstream hearing society (Valli, 2005).

Historically, deaf or hard of hearing persons have been classified as disabled based on their hearing loss. However, there are numerous of deaf people who do not define themselves by their hearing impairment, in fact do not see deafness as an impairment, but rather consider themselves members of a unique community with shared values, beliefs, and a shared language.

Obasi (2008) indicated that it is critical to make a clear distinction between deaf people who have lived most of their life as hearing people and lost their hearing later in life and still utilize speech as their primary modality of communication (2008). He further suggests that it is important to compare and contrast these differences to the deaf community who do not refer to themselves as disabled but rather members of a cultural
and linguistic minority who share the same cultural, linguistic, and traditional backgrounds (Obasi, 2008).

Early Intervention and Literacy

There are many challenges that deaf or hard of hearing students face in postsecondary education as it relates to latent English literacy skills. While deaf or hard of hearing students are provided with appropriate educational accommodations which allow access in postsecondary settings, (i.e., interpreting/real time captioning services, note taking assistance, etc), it is apparent that the lack of English literacy skills has become a barrier for this population of students.

Early intervention which fosters successful language development for deaf or hard of hearing children is a critical component to the acquisition of English literacy skills. In the 2007 State of Education Address, O’Connell (2007) reported that the California Department of Education (CDE) avowed that,

Educators must be sure that school age children who are deaf or hard of hearing receive instruction in age-appropriate, standards-based curriculum. Many children who are deaf learn best when instruction is provided by direct instruction by a qualified teacher of the deaf, who is proficient in signed language. (p. 1)

Lang (2002) also addressed the need for early intervention when he acknowledged that,

The issues of early intervention and academic preparation in elementary and secondary programs have an undeniable direct bearing on the academic success of deaf students in higher education. For as long as colleges and universities are unable to effectively assist elementary and secondary school professionals and
parents of young deaf children during the critical early school years, postsecondary programs will be doomed to post-hoc, band-aid programming. (p. 275)

A review of the literature indicates that presently, deaf or hard of hearing students who are entering postsecondary institutions are underprepared to meet the literacy demands that are required to successfully master college level coursework. English literacy skill development has in essence become a barrier for deaf or hard of hearing students in higher educational settings, therefore, the persistence and retention of this population of students remains complex at best.

Persistence and Retention for Deaf or Hard of Hearing Students

According to the U.S. National Center for Educational Statistics (1999) public two year colleges account for over one quarter of all higher education institutions in the United States and enroll over one-third of all college students. However, it is reported that students with a goal of completing a bachelor’s degree who begin postsecondary education at a community college are 15 percent less likely to complete a bachelor’s degree than those students who begin their educational endeavors at a four year college or university (Pascarella, 2007).

In contrast, the U.S Department of Education (1999) calculated that 50% of deaf and hard of hearing students entering college during 1989-1990 withdrew by 1994. Furthermore, academic skills, communication skills, and prior schooling are other pre-entry attributes impacting persistence for students with hearing impairments (Boutin, 2008).
Boutin (2008) suggests that the social divide between deaf and hearing college students is a result of cultural misunderstandings and communication barriers. This concept can be extended to include all deaf and hearing people. What occurs in higher education is simply a smaller scale of the events that play out in the larger society (Boutin, 2008).

In 1999, the Institute on Rehabilitation Issues (IRI) estimated that 25% of deaf or hard of hearing high school completers each year were at risk of being identified as “low-functioning deaf” adults due to their reading levels which fall below second grade. Another 45% could participate in vocational or trade programs due to their ability to read between a second and fourth grade level, and 30% were eligible for community colleges, and universities because they read above a fourth grade level (Bowe, 2003).

Lang (2002) hypothesizes that for reasons which include limited resources, colleges and universities are in a challenging catch 22 situation, that is unable to invest in research and development efforts to help parents and teachers better prepare deaf or hard of hearing children for the demands of postsecondary studies and unable to effectively address the needs of currently enrolled deaf postsecondary students who are not well prepared for the rigor of college level coursework (Lang, 2002).

Literacy development does not only apply to deaf or hard of hearing students but also to mainstream students in pursuit of obtaining a higher education. The ability to read and write is a fundamental skill necessary to access college level information. Literacy makes up not only English curriculum but also generalizes to all core curriculum needed for degree completion. Many hearing students graduating from high school in the state of California enter postsecondary settings with multiple skill deficiencies as it relates to
reading, writing, and math. These students often spend a number of semesters in remedial math and English courses before moving into college level courses in other areas (Bahr, 2007).

Escobedo (2007) indicated that a variety of strategies must be implemented in order for postsecondary institutions to improve retention and persistence among all college students regardless of cultural and linguistic backgrounds. These strategies include intrusive advising, regular contacts, orientation sessions, classroom presentations, learning communities, and student success classes.

Basic Skills Initiative

The Basic Skill Initiative focuses on strengthening basic skill development for students from all backgrounds including those from marginalized groups. Oudenhoven (2002) defined remedial students entering community colleges as those students who are of traditional age attending immediately after high school, adult students who have served in the military, worked or raised families, and students for whom English is not their native language.

The Basic Skills Initiative (BSI) has been developed and is in the process of being implemented within the California Community College System. The BSI has been designed to address what has been considered to be an educational crisis among California’s high school graduates. For example, developmental courses at community colleges are have been developed to assist help underprepared students with math, reading, and English skills (Byrd & MacDonald, 2005). This may imply that community colleges need to be equipped to meet the diverse needs of the students they serve both in academic and vocational training coursework.
Bahr (2007) suggests that although postsecondary remediation ostensibly is intended to reduce disparities between disadvantaged and advantaged groups, instead it exhibits the “Matthew Effect” those who have the greatest need for remediation are the least likely to remediate successfully, while those who require the least remediation are the most likely to remediate successfully (Bahr, 2007). Students from underrepresented groups are at a higher risk for non-completion of college than any other population of students. This would include students from low socioeconomic backgrounds, students of color, and students with disabilities.

First time community college students spend more time in remedial math courses than remedial English courses, although literature regarding basic skill development proposes that remedial math students who are prepared for college level English coursework have higher odds of successful remediation in math as well. Community college students who enter college without basic skills generally take longer to earn a degree due to the fact that remedial classes do not count towards degree completion (Bahr, 2007).

According to Waiwaiole (2008) there are approximately 1,200 community colleges throughout the United States of America. Community colleges now enroll more than half of all undergraduate students in higher education. Of the nation’s undergraduates, 47 percent are of Black and Asian descent, 55 percent are Hispanic, and 57 percent are American Indian (Waiwaiole, 2008).

Advocates for deaf or hard of hearing students in postsecondary education have argued that these students are also second language learners and would benefit from instruction and services which incorporate English as a Second Language (ESL)
strategies that are embedded in BSI instruction. Therefore, the BSI encompasses not only the students mentioned in the definition above, but also students who deaf or hard of hearing.

In summary, research has consistently shown that deaf or hard of hearing students in postsecondary educational settings struggle with English reading and writing skills. Many organizations and programs have been developed to address this national disparity.

Community Resources for Literacy Development

Based on the information examined in this literature review, the question naturally arises as to what are some of the best practices being used to successfully assist deaf or hard of hearing students with literacy issues in postsecondary education? Additionally, what are some effective practices for deaf or hard of hearing students with a goal of degree completion or workforce training at community colleges and universities? And finally, what support services or resources (i.e., campus, community, etc) are available for deaf or hard of hearing students to assist with reaching these personal and academic goals?

Postsecondary Education Programs Network (PEPNET) is a national organization comprised of regional centers designed to provide resources, information, in-service training and expertise to enhance educational opportunities for individuals who are deaf or hard of hearing, service providers and families. PEPNET provides resources to two and four year colleges, universities, secondary educational programs, community rehabilitation programs, continuing education programs, adult basic educational programs, and vocational and technical training programs. Furthermore, PEPNET
provides information for service providers of deaf or hard of hearing individuals as it relates to English literacy development at postsecondary institutions, (PEPNet, 2007).

Community organizations play an integral role in assisting deaf or hard of hearing students with the acquisition of literacy skills. In San Diego, California, individuals who are deaf or hard of hearing can enroll in Deaf Community Services (DCS) Adult Literacy Program to engage in supplemental instruction for latent English reading, writing, and math skills. DCS is an agency which offers services to deaf or hard of hearing people based on individual needs. DCS is funded in part by the California State Department of Social Services, the California State Employment Development Department, Health Resources and Services Administration (HRSA) through the County of San Diego, Health and Human Services Agency, City of San Diego, and United Way. DCS has a mission statement which unequivocally states, “Our mission is to enrich the lives of people by providing services, education and advocacy that promote independence, opportunity, accessibility, and diversity” (DCS, p. 2).

Deaf Community Services offers an array of services that foster the attainment of independence through education and training. The Adult Literacy Program is vital to deaf or hard of hearing individuals developing the necessary skills to effectively communicate within a hearing world. Additionally, due to their challenges to be successful in college level courses, the adult literacy program offered at DCS is a may be a viable alternative to help build upon basic skills in reading, writing, and math.

The instructors teach courses in American Sign Language while utilizing an English as a Second Language model. It has been suggested by professionals in the field of deaf education that this method of instruction benefits the deaf population and
maximizes learning because this approach emphasizes direct communication. The program consists of building skills in the areas of basic communication skills, Basic English skills, basic mathematics skills, and basic computer literacy skills.

Students enrolled in the Basic Communication module learn to effectively communicate using expressive and receptive sign language skills. This module incorporates fingerspelling, social skills for everyday life, social skills for the workplace, and skills for independent living (DCS, 2007). Students consistently work towards strengthening any gaps in the native language, once this has been accomplished, a progression can be made to the Basic English Skills module. Reading and writing, grammar, vocabulary development, and questions/answers, commands, directions, and statements are the primary focus of this program. The Basic Mathematics program emphasizes addition, subtraction, multiplication and division. In addition, students benefit from having the opportunity to learn about decimals, fractions, math vocabulary, time, money, personal budgeting and measurement concepts. The Basic Computer Literacy module provides training in the use of e-mail systems, browsing the internet, learning to create Word and Excel documents and computer typing skills (DCS, 2007).

Deaf or hard of hearing students graduating from high school who lack the basic skills needed in order to transition into postsecondary education can take advantage of this community based organization geared towards assisting deaf or hard of hearing individuals with developing literacy skills using a bilingual (American Sign Language and English print) bicultural approach. DCS also has programs which assist deaf or hard of hearing students develop the techniques needed to gain employment in today’s workforce (DCS, 2007).
Interpreting services are provided for all job interviews and for initial job training, which is essential to the success of deaf or hard of hearing individuals in the workplace. Recruitment and assessments are done initially to determine the appropriate services needed to support students. Counseling services are provided to assist students with the decision making process as it relates to vocational/career choices and educational and employment opportunities (DCS, 2007). DCS works with neighboring agencies to provide additional training to further enhance students’ abilities to obtain employment. Job search training enables the students to become job ready by allowing them to participate in workshops designed to teach interviewing techniques, appropriate dress required for job interviewing, and by providing the students with individual feedback. Students also benefit from referrals to potential employers by way of computerized job matches through the Employment Development Department (EDD). Newspaper searches, and contact with prospective employers serve as a core element in the employment training process. Job monitoring is a process by which contact with the employer of the deaf or hard of hearing individual is maintained for 30 days in an effort to address any issues related to job performance, language, and interpreting services (2007).

Bradley (2004) noted that the Moore Norman Technology Center (MTNC) in Oklahoma is one of the only programs in the state that is designed to attract both deaf and hard of hearing high school students and adults. Bradley states that students in the program function at different academic levels from very high to very low. The program is intended to assist students with English literacy development, however its primary function is employability. (Bradley, 2004). MTNC recognizes that English is a second
language for deaf or hard of hearing individuals and therefore gaps exist in their abilities to read and write. Consequently, MNTC works to ensure that deaf or hard of hearing students' writing skills do not serve as an indicator of the students' abilities. This is done by students concurrently enrolling in programs which teach not only literacy skills but also employability skills.

It should be noted that even with collaborative partnerships which target workforce outcomes, lower levels of English literacy skills relative to deaf individuals hearing counterparts have created a serious obstacle to postsecondary education, initial employment, and workforce advancement for the deaf (Punch, Hyde, & Creed, 2004).

Social Capital and Employment

Social capital is a concept which embraces the idea of social networking as a way to build relationships, resources, and communities for people with and without disabilities (Condeluci et al. 2008). Social capital has been studied in particular for individuals with disabilities as a way to increase their abilities to become active, engaged, and gainfully employed members of society (Condeluci et al. 2008). Furthermore, social capital has been defined as the offer of support from family, friends, and acquaintances (Condeluci et al. 2008). Based on the aforementioned, I have chosen to use the social capital theory as the conceptual framework as the foundation for my grounded theory research study. I will use the social capital theory as the lens to examine the attainment of personal, academic, and employment success for deaf or hard of hearing individuals.

Presently, there are significant disparities which exist within the employment and vocational industries for individuals with disabilities. It has been reported that there are approximately 29 million Americans with disabilities that are of working age, however
67% are not presently working, despite the fact that 79% who are not working want to work (Parris & Granger, 2008). Social capital may be a way to bridge the gap between labor trends and the employment of people with disabilities. Paris and Granger (2008) further noted that those with the least access to social capital are in fact the same individuals who would benefit the most from the help, sympathy, fellowship and health benefits it offers.

Access to social capital may be beneficial to persons with deafness due to the fact that they are usually treated as a homogeneous group when in reality the population is dramatically variant (Bullis & Davis, 1995). The deaf community is as diverse as other communities and hearing professionals must be cognizant of this notion when delivering services to them. Subsequently, cultural understanding and sensitivity has been a bridge to the appreciation of differences that exist among hearing and deaf individuals while parallels are shared as they relate to having the same goals and dreams (Benedict and Sass-Lehrer, 2007).

In a study conducted in 2004, Brockelman, Kennedy, Newsom, and Olney noted that perception of a disability is a complex, interactive phenomenon that is dependent on economic and social as well as personal experiences. It is for these reasons that school to work initiatives for deaf or hard of hearing students may be another avenue to create partnerships with community colleges and community based organizations with the hope of strengthening access to social capital and employment for this population of individuals.

The United States has seen a skyrocket in the unemployment rate. In 2003 for an example, individuals aged 16-19 years of age saw unemployment numbers rise to 19%
compared to 6.2% for the population as a whole (Punch et al. 2004). Furthermore, students with disabilities experience higher rates of long term unemployment specifically 13% in comparison to 7% among peers without disabilities. Even with these dismal numbers there has been a paradigm shift in the labor market moving from industrially based to technologically based societies, which has brought about the need for economic globalization, organizational restructuring, and downsizing (Punch et al. 2004).

Nationally, the unemployment rate in January 2009 was 8.1% and rose to 9.4% in July 2009. The unemployment rate for the state of California also saw a climb in percentages with job loss rates going from 10.1% in January 2009 as compared to 11.6% in June 2009 (Bureau of Labor Statistics, 2009).

Consequently, school to work initiatives have been designed to provide both deaf and hearing students with opportunities to learn not only in the classroom setting but also in the workplace. Many young deaf individuals have enormous difficulties with transitioning from school to career and often find the transition to be unstructured, haphazard and frustrating (Anderson & McGee, 1998). Additionally, school to work initiatives address this problem by allowing individuals to identify their career goals early, thus determining what postsecondary education and or training will best meet their needs.

Subsequently, partnerships which integrate community colleges and workforce training are being created throughout the country in an attempt to make connections with the global economy and the economic development of the United States and abroad. Community college students whether deaf or hearing must obtain the necessary tools to compete in a labor market which changes on an everyday basis.
Conclusion

Effective practices need to be developed and implemented at primary, secondary and postsecondary levels which provide opportunities for deaf or hard of hearing individuals to maximize their learning potential by acquiring the tools which promote English literacy. These students represent a small number within postsecondary institutions, however their inability to meet their academic and personal goals has had a profound effect on society and their ability to become independent, self-supportive individuals.

A review of the literature has revealed various reasons for the lack of English fluency development for deaf or hard of hearing children and how these factors, if left unaddressed, can negatively impact success for these students in higher educational settings. Educational environments that facilitate success among culturally and linguistically diverse learners should be the model for the 21st century. Effective and consistent institutional practices may significantly reduce the number of students who drop out, thus having a positive impact on the persistence and retention of deaf, hard of hearing, and hearing students seeking to obtain workforce training or degree completion.

The California Community College system is the largest educational system throughout the world, yet it continues to struggle with issues surrounding success particularly related to students from marginalized groups. Although California community colleges have done an outstanding job with providing a clear pathway to access for students from diverse backgrounds to gain an education, second language students as well as their mainstream counterparts spend endless semesters in the web of
remedial education. Deaf or hard of hearing students’ persistence rates continue to be bleak even with support services, including interpreting services in place.

The intent of my study is to collect qualitative data regarding factors affecting educational and personal success for deaf or hard of hearing individuals. This study will provide direct insight through the personal accounts of deaf and hard of hearing individuals who have successfully attained their goals. These testimonial experiences will add the voices of deaf or hard of hearing individuals to the literature that is dominated by voices of professionals.

I will use my findings to make recommendations for program development for deaf or hard of hearing students within educational environments. This will be done in an effort to elevate the percentage rates of (D/HOH) students who successfully reach their professional, personal, and academic goals.
CHAPTER 3—METHODOLOGY

The primary purpose of this study is to address issues related to the academic and personal success of deaf and hard of hearing individuals in postsecondary educational settings. This study will describe how these individuals utilized effective strategies to assist them with meeting their personal or academic life goals.

A qualitative grounded theory research approach was selected and was used to investigate learning outcomes for deaf or hard of hearing individuals who obtained gainful employment, completed a workforce training program, or a degree in higher education. Charmaz (2006) indicated that grounded theory involves making comparisons from data to construct abstractions and then connecting those abstractions back to the data that has been collected.

The information gathered in this study was obtained from semi-structured standard interviews that were conducted with seven deaf or hard of hearing individuals who met their own personal or academic goals. The participants were selected due to their previous experiences in a workforce training program, postsecondary institution, or their ability to become gainfully employed.

This chapter will describe the research design of the study and a review of the research questions which will be investigated. Additionally, the process for selection of study participants will be explained in depth including interview procedures, data collection, data analysis, ethical concerns, and limitations.
Research Design

A qualitative grounded theory research design was chosen for this study because it was an appropriate method to effectively investigate the relationships, experiences, and strategies that were exercised by deaf or hard of hearing individuals who have achieved personal or academic success. A grounded theory method assists with seeing the data in fresh ways while allowing the researcher to explore ideas about the data utilizing early analytic writing (Charmaz, 2006). While parallels with other underrepresented groups could be made in relationship to access in postsecondary education, using the grounded theory model allows for a fresh approach with this unique population.

Qualitative research will allow the researcher to collect and examine data that is completely unanticipated, yet rather evolves (Manning, 1992). The use of a qualitative grounded theory approach provided a model that allowed the researcher to analyze data from a perspective of a storyteller who provided the voice for the actual experiences of the participants. Additionally, this approach allowed the researcher to investigate the factors and mechanisms which affected the educational and personal success of deaf and hard of hearing individuals.

There has been a lack of research in the area of the skill development needed for deaf or hard of hearing individuals who have successfully completed an academic or personal goal as well as the perspectives from this population of individuals. Therefore this study will include interviews with successful deaf or hard of hearing individuals to understand the complexities and their experiences related to the pursuit of a higher education when faced with a hearing disability.
Research Questions

1. What are some of the strategies and support mechanisms used by deaf or hard of hearing individuals which lead to academic and or personal success?

2. What are the implications for practice in institutions of higher education in serving deaf or hard of hearing individuals to ensure success?

Participants

The participants in this study included seven individuals who identified themselves as deaf or hard of hearing and who met the criteria of being successful in meeting either an academic or personal goal. A qualitative design, specifically a grounded theory study method of inquiry was used to describe each individual’s unique experiences with pursuing an educational or personal goal as a deaf or hard of hearing person.

For this study, from a pool of 35 individuals, 15 prelingual deaf or hard of hearing individuals were identified as potential participants for the study. Additional criteria for participation in the study included a unilateral/bilateral severe to profound hearing loss, a unilateral/bilateral moderate hearing loss, and a primary communication modality which involved American Sign Language or another signed system, or the use of spoken English. For the intent and purposes of this study, the researcher worked collaboratively with postsecondary and higher education faculty and staff to develop a list of 32 potential candidates for the research study. This information was used by the researcher for the sole purpose of gaining contact information for a pool of 15 potential participants. An additional review of the criteria was conducted to determine how many participants
would actually qualify for recruitment in the study. The criteria for participation in the study were narrowed down to 3 categories: (a) a deaf or hard of hearing individual who had obtained a degree from a two or four year educational institution, (b) a deaf or hard of hearing individual who was currently employed and working a minimum of 15 hours per week, and (c) a deaf or hard of hearing individual who had completed a vocational/workforce training program.

For this study, 15 individuals were purposefully selected as potential candidates for participation in the study. The participants were selected based on study criteria and to increase maximum variation among the study participants. However, as I began the recruitment process for this study there were several challenges that I encountered in attempting to recruit deaf or hard of hearing individuals for participation.

I began the recruitment process by initially identifying 35 deaf or hard of hearing individuals who could potentially participate in the study. From that early identification list I began to pare down the list by purposefully selecting individuals who met the criteria of the study. This process narrowed the recruitment list to 20 individuals based on those individuals who met the study criteria listed above. I successfully identified 15 deaf or hard of hearing individuals who met all criteria requirements. I then e-mailed recruitment letters and consent forms to the 15 potential participants; in addition two of these participants were contacted by phone. From the 15 subjects selected I had an initial response of four individuals, three said yes, and one no. I then went back to my original recruitment list of 35 and selected three more individuals who met the criteria of the study. Of those three, none responded. Again, I selected three more individuals from the recruitment list of 35 and I had no responses.
After completion of my interviews with the first three participants, I asked for referrals for the study. I was provided with contact information for one potential participant, who did not respond to my recruitment material.

Again, I selected three more individuals from my original list of 35 and sent out a follow-up e-mail to the 11 potential participants who did not respond to the first recruitment request. I received one response, which was a no response. I was provided with a referral by two colleagues that yielded with one no response, and one yes response. I was also able to gain another yes response from the original 11 recruited participants, which totaled 5 interviewees for the study. I was given a referral from a transcriber in the field of deaf education which also yielded a yes response, as well as a referral from another colleague which resulted in an additional yes response.

The recruitment process for this study involved the initial identification of 35 deaf or hard of hearing individuals. From the 35, the recruitment list was pared down to 20 individuals. Upon further paring, 15 individuals who met the criteria of the study were actively pursued for study participation. The recruitment process for obtaining participation of the 15 deaf and hard of hearing individuals only resulted in a total of seven actual participants in the study. The purpose for detailing this process is to demonstrate the reluctance of this population to participate in research. The reason for the low participation rate is likely related to historical misrepresentation and treatment of deaf or hard of hearing individuals by researchers, as described in the following studies.

Historically, deaf individuals were studied using a medical model which utilized an approach of “fixing” the deaf person. Based on the medical model, deaf individuals were reluctant to participate in research studies because of the stigma of research
indicating that their culture and language was “wrong” (Baker-Shenk & Kyle, 1990). It was for these reasons that a lack of involvement in research by deaf participants has been a tradition and an expectation. As a result, feelings of powerlessness, prejudice, and mistrust have been linked to deaf people and research. The belief is that the “establishment” deaf educators (i.e, speech and hearing therapists, audiologists, educational psychologists, etc) hold the power and dominance and therefore make the determination in terms of what is best for those with little power…the deaf (1990).

Twenty years after this study, research conducted by Dickinson (2010) indicated that the interactions between deaf and hearing people are clearly complex and that consideration of the power relationships between the minority deaf community and the dominant hearing majority must be taken into account. Moreover, practitioner-researchers in the field are positioned between the deaf and hearing communities and have to remain cognizant of the issues raised by their insider/outsider status. Subsequently, this creates an intricate relationship with deaf research participants. Because of this, recommendations have been made for the development of an ethical research model and principle guidelines to ensure that ethical standards are adhered to by principal investigators conducting research with deaf individuals and sign language communities (Harris, Holmes, & Mertens, 2009).

Many of the issues (i.e., mistrust, oppressed view, power, etc) regarding hearing researchers and deaf participants may have been a significant factor in the low participation rate in my study.
Pilot Study

A pilot study was conducted which included testing questions for the interview protocol to be used in the study. The pilot study was conducted in order to provide the researcher with feedback regarding the interview questions which were developed for the study. Specific information sought from the pilot study related to whether the developed questions were clear and concise. A deaf individual, who met the criteria for participation in the study, was recruited for the pilot study. As a result, this individual was not selected for participation in the actual study. The participant was given an overview of the study by the researcher and allowed time to ask any questions regarding the study prior to completing the interview. Additionally, the sample interview protocol was given to the pilot study participant with instructions to provide feedback to the researcher upon completion of answering the interview questions. The participant completed the interview within a 35 minute time frame.

Results from the pilot study indicated that the interview protocol questions were appropriate for the study. It was also determined that the interview protocol had an adequate number of questions and that no changes should be made to the language used in the questions. Additional pilot study results yielded information regarding the use of an interpreter. Deaf or hard of hearing participants were given a choice as to whether or not they wanted to utilize interpreting services during their interviews. Feedback from the pilot study participant indicated that this approach for the use of interpreters during the interviews was also appropriate. Furthermore, pilot study results were used to make changes to the interview protocol to ensure objectivity, integrity, and confidentiality of the participants.
Data Collection

Based on results from the pilot study, an open-ended interview protocol consisting of 16 questions was developed for this research study (see Appendix A). The questions consisted of background information, family history, language acquisition, educational history, post secondary academic and personal experiences, as well as workplace experiences. Additionally, the interview protocol asked participants to provide information regarding any support services used in both the workplace and postsecondary settings. This protocol was designed using the published literature that I reviewed, as well as the conceptual framework of social capital. Additionally I used the interview protocol as a foundation for conversations, which took place during interviews between the participants and the interviewer. The subjects were interviewed over a one and a half month period. The first 10 minutes of the interview (pre-interview period) the researcher explained the study and provided the participants with a IRB approved and stamped written consent form.

The consent form served as written permission for the investigator to conduct interviews, collect data, videotape, and digitally record each interview session. The interviews were structured into 1 hour interviews with consideration given to the language differences between the deaf or hard of hearing subjects and the researcher. The researcher in this study is hearing and is fluent in American Sign Language. However, based on pilot study results the participants were given a choice of whether or not they wished to utilize an interpreter as a facilitator of communication during the interviews. It should be noted that based on pilot study results, when the researcher conducted an interview without the use of an interpreter a video camera and digital recorder were used.
The researcher took abbreviated notes during the interview in an effort to maintain eye contact with the interviewee, and to assist with creating a natural and engaging environment for the participant while using direct communication. When the researcher conducted an interview with an interpreter facilitating communication, the researcher also used a video camera and a digital voice recorder which allowed the researcher to create a summary of the interview when the interview ended. The digital recorder allowed the researcher to hear the questions that were asked during the interview. Additionally, playback of the digital recorder allowed the researcher to hear the interpreter voicing the participant’s responses during the interview process. However, the researcher is committed to ethical research practices that provide the participants with a comfortable and confidential research setting. For those participants who chose to utilize the services of an interpreter, the researcher met with the interpreters prior to each interview to discuss any issues related to the study that required clarification. According to the Registry of Interpreters (2005) this is a standard practice for interpreters. Wolff (2007) noted that interpreters are obligated to follow their own Registry of Interpreters for the Deaf Code of Ethics.

Ethical standards addressing the use of interpreters during interviews were adhered to by the researcher. The interpreter who participated in the study followed guidelines established by the Registry of Interpreters, Code of Professional Conduct regarding confidentiality and code of ethics.

*Interview Process*

The interviews were videotaped as well as recorded with a digital voice recorder. These two methods allowed the researcher to use voice recordings and video recorded
footage as a way to check for accuracy of the transcription process as it related to translation from ASL to English. Additionally, the researcher conducted member checks with each study participant as yet another way to ensure accuracy of the information collected during the interview process, thus providing the researcher with three media in order to verify the consistency of the data within the context of the study.

The interviews took place in a secure office in a building which was centrally located within San Diego County. The location was convenient for all participating subjects in terms of travel time. No undue hardship was placed on the subjects in reference to distance traveled, interview dates and times, or duration of interviews. Each interview was on average 46 minutes in length, and was scheduled on different days and times based on the participant’s availability. If an interpreter was requested by the participant, the researcher hired an interpreter to interpret during the interview process. The researcher, interpreter, and the participant occupied a secure office for the duration of the interview. The researcher sat across from the participant to fully engage in the interview process, while the interpreter sat on the right or left side of the subject depending on the subject’s preference. The researcher always maintained direct eye contact with the subject and only communicated with the interpreter for clarification purposes related to interpretation of the message being communicated by the subject.

The interviews were scheduled for a 90 minute time frame, however each interview was less than ninety minutes. Ten minutes was scheduled in the beginning of each interview dedicated to providing instructions to the participants, answering questions, and signing of the consent forms by the participants.
Subsequently, Wolff (2007) conducted an exhaustive search for relevant literature was conducted in order to obtain information regarding the appropriate amount of time that should be used when interviewing deaf individuals, however no research was found. Wolff determined through conversations with experts in the field of research on deafness that approximately 10 to 15 minutes should be added to an interview with a deaf individual when utilizing an interpreter. The researcher assigned a 90-minute time frame for each interview with the flexibility for additional time if needed.

The flexibility within the time frame was adopted by the researcher for this study in order to provide an environment for the participants that allowed them an adequate amount of time to express themselves in their primary modality of communication.

Data Analysis

In this study, the researcher performed an in-depth analysis of the data which included interview transcripts and researcher notes taken after the interview. Merriam (1998) indicated that data collection and analysis is a simultaneous activity in qualitative research. She further suggested that analysis begins with the first interview, the first observation, the first document read (Merriam, 1998).

The data analysis process for this study entailed creating written summaries after each interview that were then coded. The next step in the data analysis process was the development of a thorough transcription of audio voice recordings which were completed by a professional transcriber. The transcription was evaluated by the researcher to compare the video and audio recordings for triangulation in data and accuracy. The researcher also reviewed the video recordings to check for accuracy of the information relayed during the interviews. The researcher then began the process of coding the
transcriptions line by line. Charmaz (2006) revealed that line by line coding works particularly well with detailed data about fundamental problems or processes whether these data consist of interviews, observations, documents, or ethnographies and autobiographies. Focused coding was used to compact codes and develop themes and categories. Relationships between categories were further identified to determine how the codes related to each other and formulated into possible theories (Charmaz, 2006).

Consequently, this method allowed the researcher to explore the data for implicit actions and meanings, compare data to data, and to identify any gaps in the data (Charmaz, 2006).

Upon completion of coding, the researcher began the next phase of the data analysis process by writing analytical memos. This progression allowed the researcher to begin to re-code information to develop or collapse possible categories and themes. Therefore, creating analytical memos is a crucial element in analyzing data. Charmaz (2006) describes memo writing as a way to elaborate on processes, assumptions, and actions covered by the codes and categories. As part of the grounded theory model, the process of theoretical sorting was also employed to create and refine theoretical links in the data. This process allows theoretical integration of categories to emerge within the data (2006). Upon completion of coding a transcript, the researcher sent a copy of the transcript and written summary of the interview for review by the participant. If the participant requested a correction, addition, or subtraction from the transcript, the request was granted.

The data was further analyzed to determine if consistencies or inconsistencies existed among participants in the study and to evaluate the data for any conceptual
relationships. The researcher investigated data for different perspectives, emerging insights, and hunches (Merriam, 1998). Qualitative research requires the researcher to evaluate the interpretation of perceptions made by the participants through a critical analysis of the data. It is for these reasons that the researcher used the constant comparative method when scrutinizing the data collected which provided the researcher with the ability to make a continuous comparison of incidents, respondents’ remarks and so on with each other (Merriam, 1998). According to Merriam, the researcher begins with a particular incident from an interview, field notes, or document and compares it with another incident in the same set of data or in another set (Merriam, 1998).

Additionally, in an effort to conduct a grounded theory method of inquiry that adhered to trustworthiness, the researcher used Corbin and Strauss (2008) criteria for evaluating the quality of research. The criteria set forth assists the researcher with evaluating the adequacy of the research process.

**Ethical Consideration for the Participants**

This study complied with the standards set forth by the Institutional Research Board (IRB). The recruitment, subject selection, and screening process for the participants was done equitably and with minimum risk to the participants. The deaf or hard of hearing population was chosen for this study because they are the best representative of the goals of the study.

The consent process which can be found in Appendix B provided adequate information to the recruited individuals so that they were able to make informed decisions regarding their desire (or lack thereof) to participate in the study. Time was provided during pre-interview sessions to allow participants to discuss the details of the
study and to ask questions. These interviews were held in a public setting, and the participants were informed of their rights to refuse or withdraw from the study at any time without penalty. Additionally, the consent form contained language that was clear and understandable to the participants.

Privacy and confidentiality were upheld according to the standards set forth by the Institutional Research Board. Confidentiality was maintained by ensuring that the data collected was stored in an off site location and was transported in a locked portfolio file to the researcher’s home. The data was stored in a locked file cabinet and access was limited to the principal investigator and the dissertation approved research committee. To maintain confidentiality, numbers were used for the participants selected for the study. Tapes from the interviews were destroyed 30 days after the interview was completed and following member checking of the written transcript of the interview.

It was determined by the IRB that this study fell within the review level of “expedited” research. According to the IRB, research that includes focus groups, audio taping, videotaping, or photography cannot be exempt. Additionally if risks are “minimum”, studies are also considered expedited.

Limitations

A limitation of this study was the number of participants and their experiences which may be personal or individual. Limitations of the study were also the use of an interpreter as a facilitator of communication between the researcher and the participants. This study did not account for other deaf or hard of hearing individuals who have not attained academic or personal success. Additionally, this study did not account for
individuals with other disabilities who have achieved academic or personal success in higher education institutions or workforce/vocational training programs.

Summary

A qualitative grounded theory approach was used in this study to determine what barriers existed for deaf or hard of hearing individuals who pursued an academic or personal goal in post secondary institutions or vocational training programs. In addition, this study sought to investigate persistence and retention, academic and social perceptions, college readiness, and the academic and interpersonal skills of deaf or hard of hearing individuals who met goal attainment.

Chapter 3 described the methodology which was employed in this research study which outlined the participants, interview protocol, data collection procedures, reliability and validity, data analysis, ethical responsibilities, and limitations.

In Chapter 4 the findings of the study will be discussed, while Chapter 5 will focus on the implications of the study, recommendations for program development for deaf or hard of hearing individuals in educational settings, and suggestions for future research in the field of deaf education.
CHAPTER 4—FINDINGS

The intent of this study was to evaluate the factors and or mechanisms that led to the personal or academic success of deaf or hard of hearing individuals. A qualitative grounded theory approach was conducted to answer two research questions that were the basis for this study.

1. What are some of the strategies and support mechanisms used by deaf or hard of hearing individuals that led to academic and or personal success?

2. What are the implications for practice in institutions of higher education in serving deaf or hard of hearing individuals to ensure success?

As part of my research, one-on-one semi-structured interviews were conducted with deaf or hard of hearing individuals who had attained personal or academic success as defined by the study criteria. In addition, each participant met the study objectives by possessing either a prelingual unilateral/bilateral severe to profound hearing loss, or a prelingual unilateral/bilateral moderate hearing loss, and a primary communication modality which involved American Sign Language or another signed system, or the use of spoken English. Study participants consisted of four females, and three males who ranged in age from 27 to 60 years of age. Representation of ethnicity among participants included five Caucasians, one African-American, and one Latino. In terms of hearing loss, five of the participants were deaf, while two of the participants were hard of hearing. Five of the participants utilized American Sign Language (ASL) as their primary modality of communication, one participant used both ASL and spoken English for
communication, and one participant used only spoken English as the method of communication.

Themes

As part of the methodology of grounded theory, I thoroughly analyzed the data gathered from seven interviews. The analysis process for the seven interview transcripts resulted in 70 codes, which were collapsed into 23 categories. Further analysis resulted in 12 distinct themes that emerged from the data. Those themes are as follows: Family Support, Parental Involvement, Early Exposure to English Print and Language, Frustration with Communication, Code Switching, Feelings of Isolation and Exclusion, Role of Interpreter/Real Time Captioning Services, Direct Communication and Social Capital, Early Identification of a Personal or Academic Goal, Role Models, Persistence, and Cultural Identity. Of the 12 themes, 10 factors significantly influenced the personal and academic success of the deaf and hard of hearing participants in the study. Those 10 factors are presented in Figure 1 and illustrate how they relate to each other. Each of these themes will be described using examples from the interviews.

Family Support

Family support was a theme that emerged during the data analysis process and was found consistently in all seven interviews. Family support included not just the immediate family but, in many cases, support also came from extended family members. When discussing their childhood, the participants described positive feelings and interactions with their families. These feelings were often not centered upon communication but rather about feelings of having strong family ties.
Figure 1. Factors influencing personal and academic success in Deaf or Hard of Hearing Individuals.
The participants shared their thoughts on the importance of family as part of their early childhood development. They discussed how their families made sure they were included in family activities with siblings, friends, and extended family members. Family outings provided them with opportunities to not only engage with the family unit, but also with the hearing community. Some of the participants were members of large extended families that provided them with support, connectedness, stability, and a multitude of communication modalities.

A study participant paints a picture of his close relationship and connection to his family:

My mother is the sixth child out of ten children and my dad’s family, he is the third child out of five children. So there’s a lot of cousins and everyone in our family. Lots of us are close. We are always around each other. We do stuff together every week.

Another participant recalled his experiences as a child in a large family from a farm town:

My family is from that area. I’m third generation in my family from that farm from the 1920’s. My father’s side and my mother’s side, there are probably 19 children between the two of them and cousins. My father, there is 10 children on his side of the family. So I have a huge family. That really helped me to be involved in the family because we had many cousins my age either older or at different, you know, age sets. And I look at all the different cousins. And I learned how to get along with hearing people.
The participants also described support from friends when discussing the dynamics of family support. Friends were often viewed as part of the family unit and support system and appeared to play an important role in the personal development of the participants. Although the majority of the study participants experienced some level of family support, there were two participants who had differing views regarding family support. These participants reported feelings of being disconnected from their families in terms of lack of support, and a lack of access to communication and language within the home environment. For example, the two participants described scenarios during family dinners when they were not involved in the conversations at the dinner table due to their families’ inability to effectively communicate with them which often created feelings of isolation and exclusion for the participants.

**Parental Involvement**

Parental involvement was another theme that emerged during the initial phase of coding and was consistent throughout all seven interviews. The term parental involvement was further analyzed and additional terms such as parental advocacy, and parental commitment to education were found to be prevalent.

Parental involvement appeared to be much more than parents merely supporting their children early on in their development. Results from the data revealed that there was a level of parental advocacy and parental commitment to education that was consistent with each study participant. The data indicated that from the time the participants were diagnosed with a hearing loss, many of the parents were dedicated to meeting the educational needs of their child. Parents collaborated with teachers, counselors and other school staff members as a way to ensure the success of their
children. Additionally, parents sought out resources pertaining to the best educational choices and support services available to their children. The parents also educated themselves in regards to the most appropriate communication modalities based on their child’s hearing loss. One participant discussed his mother’s joint efforts with his third grade teacher:

And then I transferred to another school for kindergarten through sixth grade and my mom was real excited and relieved that there would be support and help. And she and the teacher became friends, and I remember my mom telling me that she and the teacher had a journal or something that she and the teacher were keeping track of what I learned every day at school and at home.

Another study participant described her experiences with parental involvement and parental commitment to education when reflecting about her mother making decisions regarding her educational and communication needs:

So my mom researched all these different programs and she picked the third program because they would teach me how to hear, teach me how to speak, instead of relying on lip reading. My mother would drive two hours each way everyday. I started school probably at age, about 13 months old I started school.

For the majority of the participants, parents were involved to varying degrees based on access to communication and language within the home environment. Parents who were heavily involved in their child’s education were committed to ensuring that the participant had access to communication and language at home. For example, one participant shared a story regarding her mother’s practices to make sure that she was involved in communication that took place at dinnertime:
Well, I would say I was very lucky because my mom was very involved. The school taught my mom to make sure that I was involved at dinner when we were all together, not just eating and that was it, my mother would say, hey did you understand what he said? My mom made sure that my family and I were involved in the communication because the school taught her that, so that really helped.

Parental involvement was seen not only when the participants were children but often carried over throughout their formative years into adolescence and college. Those parents who were involved with their children on a consistent basis displayed levels of involvement as their children matured. For an example, some of the parents were involved in assisting their sons and daughters with selecting colleges and career choices. Two of the study participants had parents who were responsible for their decision to attend a college that utilized direct communication as the method of instruction.

Furthermore, the parents took the initiative to present the participants with information related to colleges that were not in their hometown. The following comment illustrates this theme:

So at that point I graduated from high school and I was thinking, why not? Let’s go to college. And my mom wanted me to go to college. And I was like no way, no way. I’m staying here. I want to stay in my hometown. And she said, you want to stay here? No, no. You need to go far away to college. The University of XXX is five minutes away from home. You need some space.

Another participant shared that it was his mother who first introduced him to the idea of attending XXX University:
All my friends were gone; there was nobody I knew to take notes. I was pretty much left on my own. There were only two or three of us left. Some were going into organic chemistry, there were not many of us left. Then my mother went to the office and noticed some pamphlets, and she noticed some from the University, and she showed this pamphlet to me, and I knew at that University they used sign language there and my mother, she said, it’s your decision. It is whatever you want to do.

*Early Exposure to English Print and Language*

The research data in this study indicated that the benefit of early exposure to English print and language was consistent among all interview participants. Subsequently, each participant was exposed to an oral or mainstream educational program during early childhood. Two participants learned American Sign Language as children, and only one participant had parents who learned to sign as a way to communicate with him. It was clear that participants who had access to communication and language at home developed a strong sense of self-confidence as they matured. The participants exhibited self confidence and self advocacy by traveling alone as adults, advocating for appropriate support services in higher education institutions, interacting effectively within hearing environments, and exerting strong independence skills.

All participants in the study were prelingually deaf or hard of hearing and had an early onset of their hearing loss. Furthermore, each participant’s hearing loss was initially identified by a parent or another family member. Results of the study further indicated that after the hearing loss was identified, parents began to explore educational options for their child. Each participant was placed in an oral or a mainstream
educational program where American Sign Language was not used; therefore, each participant’s first exposure to communication and language was spoken English at home and at school. It should be noted that all the participants’ early childhood educational environments consisted of instruction in both spoken and written English. The school experience played out differently for each of the participants in regards to their exposure of language. For example, “So I was in a mainstream classroom for about half a day, and then from, in the morning and then I was in a hearing school or hearing classroom for math and English and science and history.” This participant exerted his advocacy skills by relaying to his mother his choice for his high school education:

And then when I hit high school I told my mom that I wanted to go to the residential school for the deaf full-time. So I started going to the deaf school full-time. And I think in my sophomore year I was like, I don’t like this. I don’t like going full-time. I think I like both a little mixture of mainstream with hearing and deaf.

Another participant recalls her early exposure to an oral educational program:

Well maybe sixth grade, somewhere around there, I had an all oral experience in school. Started in preschool all the way until probably my eighth grade or so all speech and oral. You know that was the controversy during the 60’s back then was oral lesson versus sign language, so my parents believed the philosophy under XXX, that philosophy you know, parents were strongly recommended to have their children in an oral program.

A study participant shared his thoughts regarding transitioning from one program to another:
Okay well, my hearing wasn’t that bad. And I started learning to sign when I was in the fifth grade when I was transferred from my home school to XXX Elementary School. But they found out that my education level was very high for a deaf student, so instead of putting me back to my home school they just put me in the mainstream classes.

Another participant discussed her frustration with some of the teachers in the mainstream classes where she was placed during her childhood:

I had a couple of teachers that made sure that I sat next to them. They would have an open book and then they would point to where we are at in the book. If a student wouldn’t do that, the teacher would. I have had teachers that didn’t care, could care less. And I had to go up and say, I didn’t understand this homework. Are we supposed to do this? What are we supposed to do? But I still didn’t get it.

Most of the participants accepted their parent’s educational choices regarding school placements based on language and communication. Study findings indicated that most of the participants did not question their placement and tried to make the best of their educational environments. The participants struggled with communication in their classrooms and discussed feelings of frustration when attempting to communicate with teachers and peers. Although the majority of the participants seemed to adapt to parental choices of an oral or mainstream approach, one participant fully embraced her parents’ selection of a mainstream program for her early childhood development. She also supported the philosophy of deaf children interacting with hearing peers during early childhood:
I didn’t have an interpreter until I was seventeen. So understand, the cool thing is that I’m proud of the oral school that I went to even though I wish I had learned sign language during my childhood, but I liked the oral school’s philosophy. It related to—I liked the philosophy, of the parents’ goal to put the child early in the hearing world.

For some of the participants their experiences in mainstream classroom settings assisted with fostering independence, along with building a strong foundation for English literacy skill development. The participants described their mainstream and oral educational environments as being structured with a robust focus on English. Participants discussed being exposed to spoken English and print from the time they started school as young children. The grammatical structure of English as seen in reading and writing was prevalent throughout the participant’s educational years. For example, one participant described his mainstream language interactions:

I didn’t have any interpreter. It is really weird because that forced me to become independent. I was in the oral program with three very small classrooms, with very few students. And I think it was kindergarten, I was mainstreamed or I was in a very small classroom. Everything was focused on language. There was no math or art or anything. Everything was focused on language. Then they set up a base for me, a base for me to build upon my language. They taught English structure, exact English structure over and over again. In this example, the participant’s early exposure to English print and language structure was consistent and focused on teaching the fundamentals of English reading and writing skills.
*Frustration with Communicating*

Although the study participants had early exposure to English language and print at home and in an educational setting, many participants described feelings of frustration as it related to their inability to communicate effectively with family, teachers, and peers. The data revealed that levels of frustration for some participants were proportional to the level of sophistication of communication and involvement by the participants' family at home. In essence, the less the participants were able to communicate, the higher the level of frustration. Some of the participants described feelings of loneliness and sadness at home and at school as they struggled to express their thoughts, wants, needs, and feelings. Study results further pointed out that the participants became extremely frustrated when attempting to communicate with large groups. When the participants were able to communicate one-on-one, their levels of frustration were lower.

One participant described her feelings of frustration as it related to being able to communicate with her parents and siblings at home. She stated that on several occasions her parents would go out for the evening and hire a babysitter to take care of her sisters and brother. The participant indicated that her parents hired several babysitters due to her behavioral issues. She described an incident that took place after her parents hired a new babysitter just before they left for the evening:

They were totally inadequate with communicating with me. And my parents would go out and a babysitter would come. And I would always give the babysitter a lot of headaches and problems and trouble, and we went through a lot of babysitters, you know. My parents had a really hard time finding a babysitter. But my father, he was-- my father would take my hand and we would walk down
the hall. I will never forget this, we would walk down the hall and my father would tell me to sit down. My father was a big man. And my father was a physician. And he would bring his doctor’s bag into the room with me. And he would give me a Codeine pill and I would walk around kind of, you know, I guess it was more easy to control me that way.

The participant further explained how this particular situation negatively impacted her life decisions as an adult:

I look back at what he did and I think—wow, that was really good. And this happened several times. So when the babysitter would come I would go dad, is it medicine time? It kind of made me a little addict back then, and it led to drug problems and alcoholism later on in my life.

In the aforementioned scenario, the parental use of narcotics to control behavior was due to the participant’s inability to effectively communicate in her home environment. As a child the participant thought that the codeine pill was a good thing based on the way the medication made her feel. However, her addiction to codeine as a child led to struggles throughout her life with substance abuse. The participant felt that her inability to use expressive or receptive language in her home environment was directly correlated with her episodes of acting out.

Another participant shared his frustration with trying to communicate with friends when he was in high school:

No it wasn’t easy. I mean you have to talk a little bit louder in order for me to hear, so if I needed to ask my friends something during class time, I would probably write a note, pass notes just because we are not allowed to talk in class.
But other than that, would I understand them if they ever talked to me? No. Most of the time, no.

Study findings revealed that frustration with communication was exhibited at some level with many of the participants and was seen in primary and secondary educational settings. The majority of the participants’ recalled that they felt as though they “missed out” on a lot of information in the classroom while growing up. Again, it should be noted that all of the study participants were students in oral or mainstream programs during their early childhood. Additionally, some of the participants remained in mainstream environments throughout high school. However, when the participants were in educational environments that utilized a direct communication approach, frustration levels were lowered and access to relationships increased building more social capital.

A participant described her frustration in high school with her inability to communicate directly with her teacher:

I have some peers that I really wasn’t friends with, but they wanted to help me, you know, which was very nice. There were some students that made sure that I understood the project or, you know. But in high school it was a little different because I went to three different high schools. But when I went to the second high school, I had trouble with that because they never really had anybody that was hard of hearing in their class. And I was a little frustrated with that. I relied on the students more than I went to the teacher.

The participant goes on to describe the role her sister played in assisting her with understanding the communicative intents of others:
And my sister would be my, if we are together, because we are close in age, and if somebody asks me a question and I’m trying to translate that question, because it takes a second for me to try—my sister would look at that and go, ‘Did you understand what she said?’ And I said, ‘Getting something?’ And she goes, ‘No, you get this and this and this.’ So she was always my second set of ears.

In this example, the participants’ sister served in the role of an interpreter when the participant was engaged in conversations that she was unable to understand. Another participant described frustrations related to her educational experiences in both an oral program and mainstream classes:

My point is that at the hearing school—when I went to the oral program they also sent me to a mainstream hearing program at the same time because they wanted me to experience both. And the oral schoolteachers would go with me to the mainstream hearing schools and watch and observe. And then they would come back and we would talk about how to support me, my frustrations, when I could raise my hand, you know, when the teacher would turn their face to the board and talk to the board and I couldn’t see their lips.

Five of the seven participants each described frustration with communication at home and at school. In addition, one of these five also indicated her frustration with communication in the workplace:

It will be five years in June. And I am looking for another classification. And the one thing about the state is you take a written and oral examination. And the one test that I took last month was for the written examination. I got a very high score
on it because I was the first five in the oral examination. I don’t know my rank yet. I was hoping it would be the top three because that is the promotional rank. The participant further shares her views on her abilities to pass the oral examination:

And my oral examination, I have trouble because I’m not a conversationalist. I can train people, show things, but I can’t explain. And I had trouble with that oral examination, trying to explain some of the questions they had. I felt like I failed, but I told them I was deaf, but they probably didn’t understand.

The study findings showed that while the participants were placed in mainstream and oral programs their frustration with their inability to effectively communicate in their school environment, placed a hindrance on their school experiences. Additionally, the results further indicated that a lack of access to communication and language at home added to the participant’s frustration levels. Frustration with communication at home resulted in exacerbated behavioral challenges for one participant. This led to the use of medication by her parents to control her behavior.

*Code Switching*

Code switching refers to a person’s ability to switch between communication modalities (e.g., oral language, signed English, ASL, or another signed system) in a variety of settings. The participants developed the skill of code switching in early childhood and as the participants grew older the skill became more sophisticated. Some of the participants stated that their modality of communication depended on: (a) who they were communicating with; and (b) the environmental setting. Research data indicated that the hard of hearing participants were very adept at code switching as a result of their constant interactions within the deaf and hearing worlds. These participants expressed
feelings of being comfortable when interacting with deaf or hearing individuals. The study clearly indicated that code switching allowed the participants to adjust to communicate and language demands within different settings. The data also showed that the development of code switching abilities enabled study participants to build greater social capital due to their ability to interact with hearing and deaf people in various environments. Subsequently, one participant described her ability to code switch in different settings as “support strategies for communication.”

When discussing communication and language, a participant shared a story related to his choice of communication with family and at school:

And my parents kind of got confused with everything. They would do cued speech. They would mix everything up. They would mix a little bit of oral with cued speech and a little bit of signed English and ASL. And sometimes I didn’t know what they were talking about, and it gets mixed up sometimes. And at school it really depends on the topic and if there’s more—what would you call it? More of an English class. I definitely prefer English in an English class. It gets confusing with ASL. Science, the subject of science, I prefer English. If it is a drawing class, or a drama class, or a vocational class where they are just explaining concepts, I do fine with ASL. If it is history I prefer English. So it just depends on – if I’m with friends, of course, I use ASL in my friendships, ASL.

Another participant talked about his communication choices when interacting with family members:
My nephew, niece, if they sign to me, my brothers signs to me, even though they know I can hear, they take the time to sign to me. My family uses different language depending on who you are talking to. Growing up, it was a Spanish environment, English speaking environment and signing environment, but it really depends on who I am talking to.

The participant further describes his communication styles with his siblings and parents:

I have three older brothers. My deaf brother, we always sign all the way. My two older brothers, they will talk to me face-to-face. If they know any sign, they were signing. Yeah, my parents, my mom and I, we speak Spanish and a little bit of English if we are trying to clarify something. And my father, always spoken English.

Based on the study, code switching strategies were implemented and utilized by many of the participants throughout their lives. One of the participants stated that even though he is deaf, in graduate school he met and married his wife, who is hearing. This participant’s life choice for a partner points to his ability to interact effectively with hearing individuals.

**Feelings of Isolation and Exclusion**

Although six of the study participants were effective with their code switching abilities, one of participants discussed at great length her feelings of isolation and exclusion as it related to her hearing loss, deafness, and lack of communication access in a predominately hearing world.

Two of the participants in the study described periods throughout their lifetime when they experienced isolation, exclusion, and anger. Feelings of isolation occurred
when interacting with family members directly related to communication. Issues of lack of power and control appeared to surface, which were accompanied with feelings of exclusion and isolation. Additionally, four of the participants developed feelings of anger when they were not included in conversations. The participants indicated that many times they were told by family members to wait until later to receive information related to conversations that took place within the family. This frustrated many of the participants as they felt that hearing individuals have access to communication and language at all times and do not have to “wait” on information as there is no “delay” in the information being provided during spontaneous communication.

One participant explained his philosophy regarding hearing people and their ability to have access to communication and language at all times. He stated:

You know deaf people are at the mercy of hearing people. We have to rely on them to include us in on a conversation in terms of signing to us, lipreading, etc. And, a hearing person can turn our access to communication on and off as they choose.

He provided an example of his personal feelings regarding isolation and exclusion:

The only bad experience I could think of is when my parents, who do know sign language, they would choose not to do sign language. And I would be like, why aren’t you signing? That is not fair to me. You can’t choose and not choose whenever you feel like communicating. So it would make me angry. And they would go, ‘Wait, I will tell you later.’ And I hate that sign ‘wait.’ And I would sit there and have to wait. And my mom would be like, ‘Oh yea.’ And I would be like, ‘Mom what is going on?’ And she would be like, ‘Wait.’ And I was like,
‘Why can’t you sign while you’re talking to your friends?’ And she was like, ‘It is too much work for me.’ I just want you to know, when we went to church I’m like, ‘Mom can you interpret for me?’ And she was like, ‘No. I just want to pay attention to the preacher. I just want to pay attention. It is not my time to interpret.’ You know what I’m saying? The communication was on and off.

Another participant discusses feelings of isolation and exclusion while watching a television show with her siblings:

Let’s see, yeah. I’m trying to remember when I noticed that I was deaf. Growing up at the time—let’s see, I had two sisters and one brother. There were four of us. Then a fifth child came along. That was much later. I remember sitting in front of the TV and my sister and brother were laughing and I wasn’t laughing. And I remember looking at my siblings thinking, why are they laughing? I couldn’t understand what was so humorous. And then as time went on, I guess I began over the years to identify myself as a deaf person.

One participant described her frustration and feelings of isolation and exclusion in direct relationship to the conversations that took place with her friends and family:

When you’re growing up you don’t think about it much. You think when you’re older you have friends and you say, what was so funny? And they are like, we will tell you later. You get tired of that. You get frustrated because you don’t know what your family is talking about. My dad got married. When I was at the wedding there were no interpreters at that time. Everybody was talking. I didn’t understand a thing. I just sat there. I was upset.
The same participant provided an example of how she turned her feelings of anger and isolation into self advocacy for full inclusion regarding communication and language within her family structure. An example of inclusion was when she forced her family to recognize her need for spontaneous conversation:

I got accepted into the University of XXX, took my hearing aid off, and said “Here I am.” We had family dinner with my grandparents. I decided to bring an interpreter. I put my hearing aid on. My family was like “Who is that?” And I said, “This is my interpreter.” They were like, “Why do you need an interpreter?” I can use my voice but I don’t understand all of you when you use your voice. And the family was like, okay, here is the interpreter. They kept watching the interpreter. They weren’t even looking at me, they were just looking at the interpreter. They were just fascinated about how I was communicating, how my grandmother would say something or my aunt would say something and the interpreter would interpret, and how everybody could join in at the same time.

She further indicated:

Some how I said the last comment at the table and my grandmother said “Wow, you’re really smart.” And I thought, yeah, of course I’m smart. I watch tv, I read the newspaper, of course I am. I realized that the communication was limited not so much with me, I had a whole big world that I understood, but conversations with them were real short. I wanted them to know that having an interpreter helps me at funerals, weddings, family functions and that I wanted an interpreter. They all agreed because they saw a whole different personality come out of me at the table. They knew another personality prior, but a whole new personality came out
of a person who was intelligent and could communicate. And there was an
interpreter set up from then on.

According to the participant there is no longer a delay in her ability to receive
information at family gatherings. The participant further stated that the family now hires
an interpreter for all family events including family dinners:

Now my family has finally accepted that I sign. And now my family will pay for
an interpreter. I had an interpreter for Passover dinner last night. It helped me to
understand what was going on with the communication around the table. I could
use my voice sometimes during Passover maybe one-on-one, but not with a big
crowd of people around a table. It was just like the three of us right here, we
would be fine, but a big crowded table is too much. So I would say in that case I
have to use ASL.

Role of Interpreter/Real Time Captioning Services

Another theme that emerged from the interviews was the quality of interpreting
and real time captioning services provided to deaf or hard of hearing individuals in
postsecondary educational environments. Study results pointed out a level of
dissatisfaction with the quality of interpreting and real time captioning services being
delivered by support service staff.

Five participants described that the quality of information often delivered by
interpreters and real time captionists was not 100% accurate and many times information
was left out altogether. The data reflected that some of the study participants received
support services that were inadequate and not in compliance with service delivery for
educational accommodations. Inappropriate support services caused a negative impact
on learning for the participants in higher educational settings. One participant talked
about a scenario in which the real time captionist assigned to her classroom was “newly
trained” and not up to speed with delivering captioning services. As a result, the
captionist missed key information that was provided in a classroom lecture. When the
participant took the classroom exam, she did not do well on the test due to inaccurate and
omitted information provided by the newly trained captionist:

Yeah, I mean I have had only a six month experienced captioner, and they are
trying their best and they still can’t get it all in there. And it frustrates me a little
bit, but they are just—you know, I don’t take it personally because they are just
trying to do their job.

The participant further indicated:

I want a lot of detail. I put a lot of details in everything. I want to ace the test, but
there are times I have only gotten a B on the test because I didn’t know we
covered this stuff because it wasn’t in my notes, because she missed a lot of that
area.

Another participant discussed other factors that affect the quality of interpreting
and real time captioning services as it related to matching the support services to the
preference or language modality of the deaf or hard of hearing individual. He provided
an example:

I learned ASL at XXX University and I just totally got involved. And then I
moved here for graduate school. I thought, when I came here, they asked me for
my services, “Do you want an interpreter?” And I thought, no I just want CART
(real time captioning) services. And they said, “Why do you want CART
services?” And I told them here that I grew up with English and I prefer CART services because then I can understand everything. The interpreter, sometimes they will be interpreting, they will be doing a good job but it is too, maybe it’s too ASL for me and I’m missing— it goes over my head. I’m missing the English information. So I feel like I want the ASL to be translated back to English.

The participant further describes the negative impact on learning that was created by an unskilled interpreter:

I really struggled with accommodations. I first thought that I just needed an ASL interpreter, well it really doesn’t matter. The first time somebody came in there I could not understand the interpreter. I had never really demanded a certified or uncertified interpreter. I didn’t understand the interpreter at all. I tried CART services and that was much better. I thought, I’m not going to do the interpreter route. The interpreter would be hit or miss. I might understand them but I might not. You know, education is very challenging itself and so there’s a barrier that I guess happens on top of the educational challenge of trying to just learn, and then with the educational barrier alone comes the additional barrier of having—trying to understand the interpreter.

One study participant provided an example of her personal struggles with a newly trained captionist in her Business Law class:

Well, if there were no real-time captionist available, but there usually is, but if there is somebody that doesn’t even know—like I had the class of business law I want to take, but they didn’t have all the terms put in there. They just wrote whatever they thought was said. And I get the notes and I’m like, oh man. I
don’t remember what they said this word was. I don’t know what you call that person? It is like a back-up person, an alternate person that comes and helps.

Five of the participants cited negative experiences of learning related to interpreting and real time captioning services. These experiences were associated with misinformation and the omission of critical course content which often jeopardized the participants’ academic goals.

Direct Communication and Social Capital

On a positive note, study participants shared their views on the benefits they received from direct communication (i.e., communication that is not facilitated through a third party) versus facilitated communication (i.e., communication that is facilitated through a third party). Study results revealed that the participant’s ability to interact within their environment utilizing direct communication provided them with access to social capital (i.e., the support offered by an array of family, friends, and acquaintances) were enhanced when the participants could use direct communication. Additionally, when the participants were engaged in the modality of direct communication in institutions of higher learning, this environment was by far their best educational experience.

The study findings pointed to an alignment between the participant’s ability to use direct communication, and their development of social networking skills. This correlation was prevalent with six of the study participants. Furthermore, the six participants were first introduced to direct communication in postsecondary education.

A participant describes how his ability to use direct communication at college was a life changing experience:
I would say at XXX University all the teachers themselves, they sign. I didn’t need any additional services at that time. It was direct communication. So it was like going to a regular hearing university where a hearing student sits in a class and just listens to the lecture, it was the same experience for me. So I felt like my college experience was the same as my sister’s at her university. She would just go to classes and attend lectures and she didn’t need any additional services. Same with me at XXX, I didn’t need any additional people or staff at that time.

The participant further explained: “When I went to XXX University I was like, oh wow. I had a total culture shock, the ASL was extremely fluent. I was amazed at the difference in mindset.”

Another participant described her initial experiences using direct communication at a college while pursuing her bachelor’s degree which provided her with social networking interactions:

I think meeting the professors, meeting the students, I loved meeting people because in my first four years I got my therapeutic degree, recreational degree. My first year I got to socialize with the deaf and was fascinated with that. After my first four years I went to the masters program and I was involved in that project and I got that experience. So I got exposed to more people and I got involved with the workforce and all of that and with students. That was a positive experience.

Research data showed that a direct communication environment provided many of the participants with positive experiences. These experiences often afforded them the opportunity to actively engage in the world. A participant described her experience
attending XXX: “So I decided to go to XXX, which is located in XXX. But when I went to that institution it was a big wake-up call for me.” The participant further described:

We had counselors, teachers and they all used American Sign Language. It was a wonderful support network. XXX is a private institution; it is not under the state or anything like that. So all of the people were great, you know, outside the campus as well. They were all wonderful. They had deaf organizations, they had—you name it everything. I went to the bank and made a deposit and the woman, the teller at the bank signed. If I had a car problem, I went to a mechanic and the mechanic signed. Everyone signed. It was amazing. It was a big community.

Another participant talked about his educational experiences as it related to direct communication at XXX:

So when I went to XXX, I got to the point where, wow, this is interesting because a lot of my professors were signing Simultaneous Communication (sim-com). It is like they sign and voice at the same time. To me it was perfect.

This participant also shared his thoughts regarding building social capital based on multiculturalism:

My positive experience was working with staff and students of all cultures. We are back together and it’s really great experience because every time we work together, when it is done, it has always been a great success and it makes people feel more bonded together.

Study findings indicated that participants who utilized direct communication in academic settings developed a strong sense of self-confidence. For example:
I want to make one comment in comparison to having an interpreter and not having an interpreter. I took an English class. I was constantly participating in class. And all of the students in the class were looking at me like, what are you doing? They were always saying, the instructor signed, so I constantly participated. I was so excited to have a class with a deaf instructor. I thought this class compared to an English class with an interpreter, it is not the same. The participation level is not the same. It was completely different in comparison.

Social capital and social networking were readily available to the participants when they were in environments that allowed them to communicate without the use of a facilitator of communication. Another participant discusses her interactions with student services in an environment where direct communication was utilized:

I have to say, all of the counselors, the programs were wonderful. It was a great influence on me. I was encouraged. It was an encouraging experience. I would do—I was involved in all of the networking. It was a very positive experience for me. I really looked up to them. They are just wonderful support.

Research data showed that direct communication enhanced the educational experiences for six of the seven participants in the study. Direct communication was also attributed to positive experiences within postsecondary education. Additionally, utilization of direct communication allowed the participants to develop friendships, relationships with others, and a connection to a college community. According to the participants, social capital included but was not limited to social networking, communication with peers, communication with families, community support, and language preferences.
Early Identification of a Personal or Academic Goal

All of the study participants identified a personal or an academic goal before the completion of high school. Two of the seven participants identified a personal or academic goal as early as childhood. Furthermore, each participant was able to identify a personal or academic goal whether they were college bound or decided to enter the workforce. Each participant identified a goal and worked towards goal achievement. Additionally, study results indicated that some level of intrinsic motivation played an integral role in assisting the participants with meeting their personal or academic objectives. Establishing goals prior to entering college assisted the participants with achieving their personal and academic endeavors.

One participant reflected upon setting a career goal during his early childhood:
See I can remember—I think in first or second grade I wanted to become a lawyer. I had decided I was gonna be an attorney. And my dad was like, “Oh yeah, you could become an attorney,” because I was always arguing about everything. Everything I did I argued with him about.

Another participant described her challenges with trying to set a goal after high school:
I, at that time, after high school I just wanted to get a job right away. I worked for one year and I would go back to school as kind of on and off. You know, I was kind of overwhelmed with education in the whole academic arena. So I looked for a job and I found a job, and I hopped around from job to job. Finally I found one permanent job that I kept for 15 years. During that 15 years I went on and off back to school to college.
A participant recalled his thoughts regarding initial plans for himself immediately following high school:

My expectations for after high school and what I did in college, because I kind of had a rough time in high school. So my plan was just to go to work and meet a girl and have a family. That was my expectation.

This participant shares more information related to his goal of entering the workforce:

After high school I worked for an ambulance company. I was delivering and transporting patients in wheelchairs to doctor’s appointments. I was laid off. And so when I got laid off it was very—hard for me. I said, what am I gonna do for the next three years? So I talked with my brother, my deaf brother, he told me about XXX and he went there before. And I said well, maybe I will go to XXX then. So I just went to college. I felt like there was something there for me. I went to college and that is where my life completely turned around. My confidence, before college I didn’t really have confidence. I didn’t know who I was.

One participant revealed her frustration with her high school counselors as she attempted to define her future goals:

I wanted to go to college. I didn’t know what I wanted to do. The counselors were at first trying to put me in some ROP classes to learn what I wanted to do, but I got bored of it quick. It wasn’t what I wanted to do. My family doesn’t believe in college education. So I didn’t go to college. I tried to but I didn’t have that motivation. When you don’t have that support, yeah.
Another participant talked about her indecisiveness regarding a career goal as she was attending college:

My goal was to teach art. I was gonna be an art designer, a hair dresser. And a few times I thought, well, you know, I can do more than that. My family said that it was an awesome job being an artist. I was like o.k. but I want to do more. My school counselor at the community college, she really helped me a lot. I would go to her and say, “I don’t know what to do. Should I be a hair dresser? Should I be an art designer?” When I grew up that is what I loved. I loved art. I just thought well, I’m gonna be an art major and a full-time mother with five kids. Well, I’m single and I teach ASL, completely different.

Another participant discussed his pursuit of an academic goal:

Well, I followed my high school class to the university, it was nearby, about two miles away. So pretty much with everybody else I went to college. They had a teaching department there and I thought, well, where else am I gonna go? So anyways, ironically the major I picked was chemistry. The reason why I picked that major was because it was my worst subject in high school and I thought well, I needed to improve in that area so I will major in chemistry. I was kind of stupid back then, but I finished actually.

The participant further explained: “I ended up joining the graduate program at XXX, and I got in to the teaching program and I really found out that I enjoyed it.”

Study findings indicated that all participants achieved a personal or academic goal as defined by the study. Six participants have successfully completed a degree and are gainfully employed. One participant is also gainfully employed, and is presently in the
pursuit of completing her degree in a four-year institution of higher learning. She anticipates degree completion within the next two years.

Role Models

All participants described having a role model at some period in their lives. These role models were instrumental in assisting the participants with reaching their personal and academic goals. Role models included family members, friends, teachers, and counselors. Study participants described their connections to role models as an essential factor to their goal attainment. The role models were deaf and hard of hearing individuals who provided an example of their ability to function independently and successfully in a hearing world. However, one participant indicated that while he had role models who were deaf, he also had a hearing role model that he looked up to as a child. The study pointed out that role models were critical to the development of self-identity for the participants. Role models also contributed to the participants’ levels of motivation and inspiration. The role models further served as mentors in their ability to provide tangible examples of personal achievement.

A participant talked about his experiences as a recruiter for XXX University. He served as a role model for deaf and hard of hearing students while employed as a college recruiter:

Let’s see here. My first job I worked for XXX University. Actually I traveled a lot. I would say 80% of the time I was traveling for XXX. I think I served more as a role model than as a recruiter. A lot of people would look at and say, ‘Oh wow, a deaf person can do this?’ The kids would say, ‘How did you get here?’ I would say ‘I drove.’ ‘Did you drive from XXX?’ ‘No I took a plane.’ And the
students would go, ‘You actually took a plane? You? A deaf guy on a plane?’ I said ‘Yeah, I got on a plane, and I came here, and I got on a taxi, and I called the taxi, and they met me at the airport, and I had my baggage, and I got my flight, and I went to a rental car, and I got a rental car, and I got a hotel, and I have already had breakfast at the hotel, and I spent the night.’ And a lot of the deaf students couldn’t believe that. They were like, ‘Really you? All by yourself? A deaf man? But you’re deaf.’ And I would go, ‘Yeah, I’m deaf but I did all these things.’

Another participant shared her thoughts on role models and achieving goals: You know, I think you try to generalize it. But I think, know, for myself I can only be a role model, and that is it. That is the key, being a role model. I don’t push students. You know, I don’t like people pushing me, so I don’t push people in a direction. I respect their boundaries and I can encourage them, I can suggest and encourage. They should meet other deaf professionals. I think that is important as the role modeling again. You know, I’m an example. I’m a counselor. And they look at me and they think, wow, you’re a disabled individual. You’re deaf. And I feel like I am providing them with a role model. Although all of the participants were exposed to a role model at some point in their lives, some of the participants did not identify with a role model until adulthood. A participant describes her interaction with a role model at the age of 25: Okay, I think I was around 25 years old. I met a woman. I met this woman and she was deaf. And I met her at a restaurant by chance with some friends. She explained where she worked and what she did and I was like, wow, I didn’t know
that someone could do that. And she explained how she taught basic English and I thought, wow. So I wanted to get into her school. I guess it was XXX at that time, so when the fall started I went to her class. That is when I really looked up to her, this deaf instructor. She was a deaf role model. You know, because when I grew up there were no role models. Nothing serious to look at. And I became really motivated and I learned quickly. And I wrote, and I was reading, and my English skills were improving. And I started thinking about goals for myself back at that time.”

When asked about role models in his life, this participant identified a staff member who provided him with direction and support:

I had several staff members who really helped me, but there was one man, he really—if it wasn’t for him I don’t know what would have happened, but he really got me through hard times. He was there for me, he almost made me feel like he always put me as number one, but I realize he was that way with other students. He was a counselor. He was like one of the important persons. You know, I really looked up to him. But then I remember it was strange because I didn’t have a Latino role model when I was there. I mean there was a Latino deaf president, but he became a role model in my last two years of college. But the first five years of college, it was that man, the counselor that I talked to.

One participant explained that when she met her birth parents, they became role models for her to complete her education:

When I met my birth parents, when I was 20, and that motivated me more because I found out my birth father was going to—getting his bachelor’s in Sociology. So
that is what made me go back to school. And then a friend, a former boss that I
started working for, she said “You’re so smart. You need to go back to school.”
That is what motivated me, those two people.

Another participant articulated her thoughts regarding exposing children who are
deaf or hard of hearing to role models:

I think kids need a life coach before they make career decisions. Because
sometimes they make decisions based on growing up and the environment from
their parents, or they got hurt by something, by a teacher, or a friend. Maybe the
child dreams to be a welder and they will say, well, I can’t do that. Look at my
dad, look at him he’s a welder. For example, my mom, my mom is a teacher. If I
can meet someone and help them let go of their judgments, or I had met someone
like that a long time ago I could have become a teacher right away.

One participant indicated the importance that role models play in assisting deaf or
hard of hearing students with reaching their personal and academic goals:

I would like to add it is really important to tell the students about other deaf
people who do the same thing that they are interested in. If they’re becoming an
attorney and they want that, show them examples. It is very important that they
know examples. They don’t realize that there are actually already deaf people in
these professions and that they can do it. Because many times they are told, oh,
just work hard, just work hard. But they want to know, is it possible? Is it
possible? I mean there is information on the Internet. There are videos of actual
deaf signers who, you know, are experts in their field. Show these to students.
See, this what it looks like. This is a role model of a deaf individual in your profession or in your goal.

Study results showed that role models were prevalent in all aspects of the participants’ lives, both personally and academically. A participant depicted how a hearing role model was responsible for his interest in basketball:

One experience that kind of forced me to interact with other people was there were older boys and I was a younger child, and I looked up to these boys. And they lived on the opposite side of the street where we grew up. And we would go to games, watch, you know, basketball. I was like six or seven. One of the guys was about 5’9”. He taught me how to play basketball. And he was a senior and I was a freshman in high school. I mean he worked hard at basketball. And because of his devotion to working hard, it really influenced me. I was astounded at this role model that I had. I tried in college. I joined as a freshman the basketball team, but it was really hard. But I was just so proud of being on the university team. And then when I went to XXX, I tried again. So I was in basketball again in my senior year at XXX.

Persistence

Analysis of the research data indicated that study participants not only had an intrinsic motivation to meet their personal and academic goals, they also had the ability to persevere despite their challenges related to communication, language, and a hearing loss.

Persistence was a trait that each participant possessed which was combined with high self-expectations and independence. The study participants had an early identification of personal and academic goals and persisted until those goals were
achieved. A few of the participants expressed feelings of “identifying what you want and
getting it,” and “never giving up.” The data further revealed that the study participants
were assertive, self-assured, and highly motivated to achieve their identified goals. A
participant conveyed his feelings regarding persistence and self-dependence:

I remember when I was growing up I never really needed other people’s help and
support. I was always told to do it yourself. You need to figure it out. Okay, I
learned that early on in my childhood that I had to do things myself. I think I
understood that and I developed that. My dad would give me thumbs up, okay,
okay. He would say, “Self, self.” I would go, “Okay, me, I’ll do it.”

Another participant shared just a few words on persistence as it relates to
education: “Just keep going. Keep going.” One participant compared and contrasted
reasons as to why he was able to persist in college and his friends were not as successful:

Well, I can’t think of what didn’t work for me, but I would say what didn’t work
for my friends. For example, at XXX in my first year, let’s say I had 400 friends,
four years later maybe I had 30 friends left, what happened to the other people?
Where did they go? And so why me? Why did it work for me but it didn’t work
for them? And there are a lot of different reasons. I reminded myself that I have
to stay there and finish what I started. Well my other friends they left. And when
they look at me and they say, “You’re lucky, you hung in there.”

Another study participant shared some questions that she would recommend deaf
or hard of hearing individuals ask themselves as they pursue their personal or academic
goals:
Are you comfortable? Are you learning? If you’re not learning, then what should you do? Should you maybe change your major or maybe you need to go to school where there’s a deaf class. You know, research it out. Find out what works. I also am fully supportive of vocational schools. I will tell them, you know, if the English is a problem for a deaf person. A lot of deaf people tell me I hate English. I hate studying. Well forget that, what do you want to do? They say I can’t.” I say, “No, don’t sign ‘can’t’ with a finger down, sign with a finger up.” Meaning you can. So what do you want to do? I will ask a deaf individual, and they will tell me what they like. And so research it, figure it out.

Cultural Identity

Findings from the research study demonstrated that cultural identity was the foundation of self for each of the participants. Self-identification and cultural identity were often articulated by some of the participants as having “one foot in the hearing world, and one foot in the deaf world.” Study findings showed that some of the participants described feelings of confusion, feelings of being different, and struggles as they related to defining their cultural identity. However, study results reflected that each participant accepted their cultural identity during different phases in their lives. For example, as the study participants became young adults, family members supported their cultural and language choices. The data reflected that some of the participants struggled with issues of cultural identity related to language modalities. Regardless, the participants accepted their cultural identity and selected a language preference. In addition, these language choices were supported by friends and family members. A study participant expressed her feelings regarding defining her cultural identity:
The first year of my graduate program I thought I could do it—or I could not do it. I was trying to kind of get to know myself, analyze myself, you know. And I was dealing with a disability, going back and forth between being deaf and being disabled and trying to find that identity. And I was kind of going through a struggle with myself and I was going through a changing period. And I realized that I didn’t have to belong to either one of these communities, that I could just be myself. So there was an inner struggle with that and that was a challenge for me. And I just had to get to a point where I accepted myself.

When discussing cultural identity, another participant explained her feelings on the issue:

I’m a deaf individual involved in the deaf community. I’m involved a lot. I identify with being a deaf person of course, and deaf culture. I don’t think I identify 100% with deaf culture, maybe 80 percent. I mean I have a hearing family, so there is always 20 percent left with me with the hearing family. Then you know, I’m deaf. I’m a woman. And then third, fourth, fifth down the line of all the other things I identify with, that I would say the number one barrier that I deal with is being deaf.

A participant revealed that his cultural identity is defined by who he is interacting with at the time:

I tell people what—it’s kind of strange. If I talk to a hearing person I will say, I’m hard of hearing and I’m culturally deaf. If I were talking to a hard of hearing person or a deaf person I will just say I’m deaf. Now the reason for that is because if I were to tell a hearing person I’m deaf, then one day a phone rings, I
pick up and I talk on the phone, things like that, they would be like, I thought you were deaf, but you can hear. So, I notice I always have to explain, so now I just tell them I’m hard of hearing and culturally deaf.

Another participant described her cultural identity in relationship to her hearing abilities:

I consider myself hard of hearing. A lot of people consider me deaf because they say, “You know that deaf girl at the office?” But they don’t consider me hard of hearing, because some people think I am really deaf. Yeah, I’m hard of hearing. But without my hearing aids I’m deaf.

Another study participant also expressed that her cultural identity is dependent upon the situation:

I’m deaf. It is interesting because people ask me what category I might be in. If I’m a signing woman, or if I’m (religion), or if I’m deaf, you know, it depends. If I’m in a situation in the kind of environment and you know, of course first I’m a woman and second I’m deaf and third I’m XXX. And then if there’s another situation, then of course I’m first deaf and second I’m a woman and third I’m XXX, and so my identity alternates depending on the situation. When I was growing up my mom taught me to say that I was profoundly deaf. So I don’t say the profoundly deaf anymore. I stopped using that and now I just use the word deaf.

When reflecting on his cultural identity, a study participant compared himself to Forrest Gump:
My hearing—I kind of feel like I’m kind of a Forrest Gump. I fit wherever I have to fit with whatever situation is going on. I’m not hearing, I’m deaf. I will do a little bit of signing. It is like I experienced growing up, I’m deaf, but when I’m with a deaf kid I sign. I completely become deaf and sign. So I learned to adjust with whatever environment comes up to include myself in that environment. So if I label myself, if I had to label myself, it would depend on the situation.

A Grounded Theory for Personal or Academic Success for Deaf or Hard of Hearing Individuals

Social capital provided the conceptual framework for personal and academic success, with six factors directly supporting the building of this support mechanism. Social capital was described by Condeluci (2008) as the support offered from an array of family, friends, and acquaintances. Social capital and social networking are necessary to build relationships, resources, and communities. A graphical representation of the grounded theory is presented in Figure 2. A written description of each of these factors, as expressed in the themes, is provided below:

1. Cultural identity plays a significant role in building social capital because it provided a connection to culture, language, beliefs, and community.
2. Role models provided a concrete foundation for the participants to meet and interact with other deaf, hard of hearing, and hearing individuals within various environments, therefore expanding social capital for the participants.
3. Parents were vital to the development of social capital for the participants in this study. They provided the participants with a strong support base and a sense of belonging within the family structure.
4. *Family support* was beneficial in the social and emotional development of the participants, and assisted with strengthening their access to social capital by providing the participants with family connections, shared values, and traditions.

5. *Code switching* was another imperative factor which assisted the participants with access to social capital. Code switching allowed the participants to engage in communication and language exchanges with individuals from various backgrounds thereby creating a social network for the participants.

6. *Direct communication* was the most significant factor that led to the development of social capital for the participants. This communication modality had a positive impact on the participants’ ability to effectively communicate their thoughts, feelings, and desires without the need of facilitated communication in academic and social settings. When the participants used direct communication, they were able to broaden their social capital by directly connecting with people and the community which by definition is the underlying principal encompassing the social capital theory.
Figure 2: Conceptual framework for grounded theory of factors influencing the success of Deaf or Hard of Hearing Individuals.
CHAPTER 5—DISCUSSION

In this chapter, I will discuss my findings as they relate to the literature review, issues, and themes that were prevalent as a result of the study, implications for practice, and recommendations for future research. The findings of this study will be used in determining best practices to assist deaf or hard of hearing individuals with reaching personal or academic goals in educational institutions.

As part of the study, five deaf individuals and two hard of hearing individuals participated in the study which addressed the strategies, and support mechanisms that led to personal or academic success. All of the participants in the study had attained personal or academic success as defined by the study criteria which were gainful employment, completion of a workforce training program, or completion of a degree in postsecondary education. Five of the participants had earned Masters Degrees, one participant is completing a Masters Degree, and one participant is in the process of completing a Bachelors Degree. In addition to attaining academic goals, all of the participants in the study have also attained personal success as defined by their employment. Four of the participants are employed in higher education, two in the K-12 educational system, and one in law enforcement.

Participants in the study represented different backgrounds, and had varied life experiences. However, the participants shared commonalities by way of communication, language, primary and secondary educational settings, and the pursuit of career paths.

The research questions will be used as a way to frame the discussion as they relate to reviewing the themes that emerged in the study. As described in the findings, 12
themes emerged, however 10 themes most specifically represent factors and/or mechanisms that led to personal or academic success by the study participants. These 10 themes are: Role Models, Cultural Identity, Parental Involvement, Family Support, Early Identification of a Personal or Academic Goal, Early Exposure to English Print and Language, Code Switching, Interpreting and Real Time Captioning Services, Persistence, Direct Communication, and Social Capital. The two additional themes, Frustration with Communication, and Feelings of Isolation and Exclusion were themes that emerged during the data analysis process; however, they did not contribute to personal or academic success for the study participants.

Research Question 1

What are some of the strategies and support mechanisms used by deaf or hard of hearing individuals that lead to academic or personal success?

Research findings indicated that the strategies and support mechanisms used by deaf or hard of hearing individuals to achieve success were: Strong Personal Support, Academic Support, Communication Strategies, and Social Support. These support and strategies were significant factors in assisting the study participants with achieving personal and academic goal attainment in their personal and professional lives.

**Strong Personal Support**

A prevailing factor that led to academic and personal success for deaf and hard of hearing individuals in this study was a strong personal support system, including support by parents, other family members, and extended family and friends. Included in the personal supports was the presence of role models.
Parental involvement was significant in shaping the lives and decisions that the participants made regarding post-secondary educational choices, language preferences, values, and self identification.

As described in the findings, parental involvement encompassed parental advocacy, and a parental commitment to education. During childhood the parents were an integral mechanism in ensuring that the participants had an enriched educational experience. The parental choices for education provided the preparation for the participants to attain academic success in higher education.

The collaborative efforts between some parents and teachers during early childhood development assisted the participants with developing a sound foundation for learning. This is consistent with the research by Watson and Swanick (2008) who reported that any disconnects between parents and teachers should be resolved in order to provide uniformity in literacy approaches. In addition, parental involvement helped to shape the participants’ core value system as it related to positive personal development.

Deaf or hard of hearing individuals who attained personal or academic success had tremendous support from their families. Family support was seen with immediate and extended family members, and provided the participants with a strong sense of self, stability, and independence. Participants benefited from engaging with their families by developing positive self-esteem and self-confidence. Family support was not limited to the nucleus family; it also included friends, mentors, and role models.

Some of the dynamics regarding family support entailed family outings such as church activities and other extracurricular activities, as well as interactions with hearing people. This supportive environment assisted the participants with developing into
assertive adults who were comfortable in a variety of settings. Family support provided the participants with an ability to accept their deafness, hearing loss, and cultural identities. Although communication was limited in the majority of the participant’s home environment, the families were effective at supporting the participants with inclusion within the family structure.

*Role models.* All of the study participants had a role model at some period in their lives. Additionally, some of the participants had role models during young adulthood who were influential in helping to shape their ideas related to life experiences. Whether the participants were introduced to role models as young adults or later in life, the role models played an integral part in the participants attaining personal or academic success.

The study findings pointed out that the majority of the participants had role models who were family members, teachers, counselors, employers, and friends. Although most of the role models were deaf or hard of hearing, one participant as a child had a role model who was hearing. Role models often assisted the participants with becoming familiar and comfortable with the hearing world through interacting within hearing environments.

In many instances the participants themselves served as role models for other deaf or hard of hearing students. When the participants were role models, they provided other individuals with examples of goal achievement by “modeling the way.” The study showed that one participant was instrumental in his ability to be a role model by being an example of success for other deaf or hard of hearing college students. His role modeling effectively showed the students that independence and academic and personal success were possible for a person with a profound to severe hearing loss. Role models were
responsible for teaching the participants communication strategies and life skills, and provided them with an abundance of social networking opportunities in academic and workplace settings adding to their social capital.

As seen in the findings, the participants were able to make a “connection” to the role models in their lives and many participants revealed that the role models provided them with their first beliefs that their personal and academic goals were attainable. Fundamentally, role models were a significant factor in the academic and personal success of the study participants.

*Extended support.* Adding to the support system, was the ability to draw strength of family and friends to maintain their own motivation and persistence. Their ability to persist despite life interferences was a considerable factor in accomplishing their goals. A few of the participants described periods in their lives when they dealt with feelings of loneliness, isolation, and depression. However, their desire to persist academically and professionally was remarkable. The participants were able to draw on their strength, families, friends, and high self-expectations to persist towards degree completion or enter the workforce. Persistence rates for deaf or hard of hearing individuals in postsecondary education have historically been very low. The Department of Education (1999) reported that approximately 50% of deaf or hard of hearing students who entered college during the time span of 1989-1990 withdrew by 1994. However, the findings from my study indicated that all of the participants persisted and achieved their academic goals in higher education institutions.
**Academic Support**

Academic supports included an early exposure to English print and language in educational environments, the support offered by interpreters and real time captioning services within classroom settings, and the ability to identify a personal or academic goal before leaving high school.

Early exposure to English print and language was a dominant factor in assisting the participants with personal and academic success. All seven participants were exposed to an oral or mainstream education during early childhood where American Sign Language was not used. In addition, all seven of the participants were exposed to spoken English at home. This exposure was crucial to providing the participants with the early development of English literacy skills. The study supported the theory that early literacy intervention created a pathway to the development of intact English reading and writing skills. This adoption of English literacy led to academic success in primary, secondary and postsecondary educational systems. Lang (2002) hypothesized that early intervention and academic preparation in elementary and secondary programs have an undeniable direct bearing on the academic success of deaf students in higher education.

Although some of the literature points towards the effectiveness of bilingual/bicultural learning environments as the best method of instruction for deaf or hard of hearing children (Cummins, 1981), the participants’ experiences indicated that mainstream and oral educational settings had a profound affect on the development of their English literacy skills. Cuculick and Kelly (2003) examined the graduation patterns of over 900 deaf students who attended the National Institute for the Deaf. The results of
this study were consistent with their research, in that students with higher reading and language skills had the best overall graduation percentages.

Early exposure to English print and language assisted the participants with strengthening their access to social capital and assisted with self-advocacy skill development. According to the findings, the participants’ early access to social capital while in mainstream and oral settings provided them with opportunities to continue building their social networks as they matured into young adulthood. This is consistent with Condeluci et al. (2008), who found that life is a complex web of people and organizations upon whom you rely and relate to at various levels.

Another example of academic support was the role of interpreters and real time captionists within academic environments. This was a substantial factor when examining success strategies for deaf or hard of hearing individuals particularly in post-secondary educational settings. Issues surrounding the quality of support services were critical to the academic success of the participants in this study. The participants relied heavily on interpreters and real time captionists to provide accurate information as part of facilitated communication services; however, participants indicated that they were often provided with misinformation or had information omitted by their interpreters or real time captionists. This finding was consistent with Quinsland and Long’s (1989) research which indicated that deaf college students who learn science through a skilled interpreter scored approximately twice as high as those learning through an unskilled interpreter. Real time captionists and interpreters who were newly trained had a negative impact on learning for some of the study participants. Incorrect lecture information was directly correlated with poor academic performance outcomes for those participants.
In contrast, it was determined that study participants who had proficient support services that were aligned with their communication modality excelled in their academic courses. In essence, the study revealed that the higher the quality level of interpreting and real-time captioning services, the greater the academic performance outcomes for the participants.

Commonalities seen among the participants pointed to their early identification of a personal or academic goal. The majority of the participants identified a goal before the completion of high school, while two of the participants identified a goal during early childhood. While in primary and secondary educational settings the participants began to formulate ideas regarding their future academic and personal goals. Often, interactions with peers in school settings influenced the participants decisions regarding colleges to attend, or the choice of career. The participants also possessed a high level of intrinsic motivation and self-confidence that spearheaded them towards goal attainment. While some participants described low expectations often set by teachers, the high expectations that they set for themselves negated the low expectations and allowed them to excel academically. In spite of some negative experiences that the participants encountered due to a lack of support by some educators, interestingly, six of the study participants are employed in education. Of the six participants who are educators, four work at the postsecondary level and two are employed in the K-12 educational pipeline. The participants’ determination and motivation allowed them to soar in their pursuit of personal and academic goal achievement.

Although some of the study participants changed career and educational paths during their lifetime, the early identification of a personal or academic goal created a
mental picture for them to work towards. This foresight in regards to identifying a goal significantly influenced the participants’ drive for higher levels of success.

Communication Strategies

Communication strategies that led to the personal and academic success of the participants included the ability to code switch between communication modalities. Code switching was described in this study as the ability for a deaf or hard of hearing individual to switch their communication modality in order to communicate with deaf, hard of hearing, and hearing people. The participants developed code-switching skills during early childhood that stayed with them throughout their lifetime.

This skill allowed the participants to actively engage in a multitude of environments and increased their social networking capacity. As indicated in the findings, code switching was defined as a support strategy for communication. This strategy was aligned with a desire to have access to communication at all times and in different settings. The hard of hearing participants were very proficient at code switching, and were able to adapt their communication style to match various settings and communicative partners. The ability to code switch effectively afforded the participants the opportunity to engage with others and build relationships, which broadened their social capital base.

When the participants were in educational environments that supported direct communication, it was a richer and more rewarding educational experience. Access to direct communication allowed the participants to engage in language exchanges that were spontaneous and free from communication delays. The study findings indicated that when direct communication was utilized by the participants, their experiences in higher
education mirrored that of their hearing peers in institutions of learning. The participants were able to communicate with their instructors, counselors, friends, and other college faculty and staff members using American Sign Language. There were no support services needed and communication was direct between the participant and their communicative partner rather than facilitated by a third party.

The concept of direct communication was supported by the Department of Education (2007) as it related to school age children who are deaf. It was noted that children who are deaf learn best when instruction is provided by direct instruction. The findings from my study support the effectiveness of direct communication as a best practice for academic success for deaf or hard of hearing individuals. Direct communication provided the participants with the ability to communicate freely and have continuous access to language. In addition, the participants were able to develop social capital within their college environments and the community which some of them described as “life changing.”

Social capital is a dynamic concept which can have an impact on the micro (individual and family), meso (community and organization), and macro (city, state, or nation) levels (Condeluci, et al 2008).

Social capital and direct communication were seen in the study as being of equal importance in direct relationship to the personal and academic success of the participants. Direct communication provided the vehicle for the development of social capital thus creating connections to family, friends, and community.

When the participants were in settings where direct communication was used, particularly within a college environment, the study pointed out that those interactions
were positive and supported the participant’s language preferences and that led to positive relationships both personally and professionally.

Condeluci et al. (2008), also reminds us that social capital is an example of the power and potency of our friendship networks and support systems. Direct communication provided the participants with greater social networking opportunities and bridged gaps in their quest for access to information and resources. Social capital and direct communication were support mechanisms that led to the personal and academic success of the participants.

**Social Support**

Social supports that contributed to the success of the participants included the identification of cultural identity. This was a significant factor that influenced the personal and academic success of the deaf and hard of hearing individuals who participated in my study. This concept was consistent among all study participants and related specifically to the participant’s acceptance and understanding of their language, culture, identity, and community.

Each of the study participants defined their cultural identity by their language preferences, communication modalities, and social settings. The majority of the participants struggled with their cultural identity at some point in their lives. It was evident from the study findings that when the participants chose a communication modality for themselves, they almost simultaneously accepted their cultural identity. Specifically, study participants distinctly self-selected into two groups when discussing their cultural identity. Five of the participants associated themselves as “Big D” or uppercase “D” – which encompasses those deaf individuals who are strongly connected
to the deaf community. Two of the participants identified themselves as lowercase “d” – those deaf or hard of hearing individuals who have strong ties to the hearing world. Study findings also revealed that some of the participants viewed their cultural identity as subject to shifts and changes depending on their social situations. For an example, one of the hard of hearing participants identified himself as hard of hearing and culturally deaf. He indicated that his cultural identity was dependent on who he was talking to and in what social setting.

Obasi (2008) indicated that it is important to compare and contrast differences of cultural identity within the deaf community. The findings of this study also determined that while some differences exist between those individuals who identified themselves as deaf and those who identified themselves as hard of hearing, the commonalities shared between the participants related to their diverse, rich, linguistic backgrounds.

This study explored the strategies and support mechanisms that led to the personal and academic success of deaf and hard of hearing individuals. These support systems and strategies were identified as Strong Personal Support, Academic Support, Communication Strategies, and Social Support.

The findings demonstrated that while 12 themes emerged during the data analysis process, 10 themes significantly influenced goal attainment for the participants in the study, and contributed to their achievement of both personal and professional goals. These themes were Parental Involvement, Family Support, Role Models, Cultural Identity, Early Identification of a Personal or Academic Goal, Early Exposure to English Print and Language, Code Switching, Persistence, The Role of Interpreting and Real Time Captioning Services, and Social Capital -Direct Communication. Moreover, of
those 10 themes, six themes emerged as the grounded theory that influenced academic and personal success directly related to the development of social capital, which was a significant finding of the study. These themes included Cultural Identity, Role Models, Parents, Family Support, Code Switching, and Direct Communication. The strategies and support mechanisms associated with these themes provide the foundation for successful personal and academic outcomes.

Research Question 2

What are the implications for practice in institutions of higher learning in serving deaf or hard of hearing individuals to ensure success?

Based on the study findings regarding the factors that influence the personal and academic success of deaf or hard of hearing individuals, the following implications for practice in institutions of higher learning can be made:

Implications for Practice

1. Role models are a significant factor in the personal and academic success of deaf and hard of hearing individuals. Role models serve as visible examples of academic achievement and personal success. Additionally, role models assist deaf and hard of hearing individuals with the development of strategies for communication and language, life skills, and of social capital. Role models are essential to the personal and academic success of deaf and hard of hearing individuals.

2. Cultural identity is a major influence in the attainment of success by deaf or hard of hearing individuals. An acceptance and understanding of the values, beliefs, and traditions that encompass cultural identity, is significant to deaf or hard of
hearing individuals pursuing higher education or who decide to enter the workforce.

3. Deaf or hard of hearing individuals who identify a personal or academic goal early on in their development, have a higher chance of obtaining goal achievement.

4. Parental involvement is a crucial component to the personal and academic success of deaf and hard of hearing individuals.

5. Family support has demonstrated to be another beneficial factor that assists deaf or hard of hearing individuals with reaching personal and academic success. A positive family unit that supports access to communication and language will enable the deaf or hard of hearing individual to feel connected, safe, and an integral part of the family system.

6. While interpreting and real time captioning services assist deaf or hard of hearing individuals with accessing communication and language in academic arenas and workplace settings, it is imperative that these support services are matched to the preference or language modality of the individual.

7. Public and private sector programs delivering services to deaf or hard of hearing individuals must provide direct communication in order to promote access to social capital. This population benefits exponentially from experiences that utilize a direct communication language model. This communication modality is essential to the development and access of social capital. In addition, early development of English skills is critical to the academic success of deaf or hard of
hearing individuals in postsecondary education and for those who seek to enter the workforce.

Recommendations

1. Educational programs at the primary, secondary, and postsecondary levels should design and implement programs that have a role model component embedded within the core curriculum. These programs should seek to recruit role models who represent diversity in language, culture, and ethnicity. In addition, role models should be representative of families, educators, professionals, and the deaf community. For example, postsecondary educational institutions should develop and implement personal development courses for deaf or hard of hearing individuals with a service-learning component. The service learning experiences should be connected to mentorships in the deaf community in effort to link deaf and hard of hearing students with visible role models.

2. Community based programs, primary, secondary, and postsecondary settings should strive to develop and implement practices which assist deaf or hard of hearing individuals with examining their cultural identities. For example, postsecondary institutions should implement social clubs, specifically geared towards recruiting and serving deaf or hard of hearing individuals. These social clubs should be designed to promote positive social and emotional growth as it specifically relates to the development of self-identification and cultural identity.

3. Educational learning environments should assist deaf or hard of hearing individuals with the early identification of their academic or personal goals. Early childhood educational programs should strive to incorporate goal setting practices
as part of their curriculum based instruction in order to increase deaf or hard of hearing children’s chances at goal completion. Secondary and postsecondary educational institutions should develop and implement programs which target strategies for the identification of personal or academic goals. For example, institutions of higher education should develop and implement college career success courses for deaf and hard of hearing students which target the exploration and identification of goal attainment.

4. Parents of deaf or hard of hearing children should have a commitment to ensuring that their child be placed in the most appropriate educational environment to meet their needs. Parents should work towards being advocates for their children in the development of their educational and personal experiences. During the early childhood development of deaf or hard of hearing children, parents should work towards developing collaborative partnerships with teachers, counselors, and other educational support staff to ensure direct involvement in their child’s educational placements. Parental involvement, parental advocacy, and a parental commitment to education unequivocally assist children who are deaf or hard of hearing with reaching their personal and academic goals. Postsecondary educational settings should strive to develop new student orientations and academic advising workshops which promote parent participation and collaboration with the college community.

5. Families must expose deaf and hard hearing children to social events, family outings, and extracurricular activities in an effort promote health and wellness. Family support should include but not be limited to the immediate family,
extended family members, family friends, and the community at large, thus
assisting with the development of social capital and social networking
experiences. Postsecondary educational settings should develop and implement
programs for deaf and hard of hearing individuals which assist the families with
learning about first year experiences for college students. These programs should
seek to promote inclusion of families and need to be ongoing throughout the
college experience.

6. Interpreting Training and Real Time Captioning programs must produce
interpreters and real time captionists who are proficient with a high skill level in
order to ensure that service delivery systems are of the utmost quality. Support
service providers at the postsecondary level who deliver quality interpreting and
real time captioning services maximize the opportunities for deaf or hard of
hearing individuals to attain personal and academic success. Institutions of higher
learning should develop and implement ongoing evaluations of interpreters and
real time captionists. These evaluations should be an ongoing means to gain
feedback on performance levels of support service providers who represent
Disabled Students Programs & Services (DSP&S) programs. The effectiveness of
facilitated communication is a vital factor that directly influences goal attainment
of deaf or hard of hearing individuals. Interpreting and real time captioning
services that are inadequate and do not meet the needs of the individual, have a
negative impact on learning and success within primary, secondary,
postsecondary, and workplace environments.
7. Programs should seek to develop and implement methods of instruction that incorporate direct communication as an alternative to facilitated communication. Deaf or hard of hearing individuals learn best when language and communication are accessible without the need for interpretation by a third party. Institutions of higher learning must employ direct communication as a method of best practice when educating individuals who are deaf or hard of hearing. For example, postsecondary institutions should develop and implement an array of courses that utilize a direct communication approach for the method of instruction. These courses should include developmental English classes which should be taught as supplemental instruction courses through DSP&S programs. Additionally, other general education core curriculum courses should also develop and implement a direct communication approach to learning for deaf or hard of hearing individuals in postsecondary environments.

Conclusion

This study utilized the social capital theory as the conceptual framework to better understand the factors and or mechanisms that led to personal or academic success for deaf or hard of hearing individuals who participated in this research study. The findings indicated that while 12 themes emerged as a result of the data analysis, there were 10 significant factors, which led to the participants reaching goal attainment.

As colleges continue to have discussions regarding access and success for all students in higher education, they must consider that students with disabilities face similar challenges in the attainment of personal and academic success. Moreover, deaf or hard of hearing individuals enter our college campuses and workforce training programs
in an effort to gain independence through completing their goals. This study has identified specific strategies and support mechanisms that lead to personal and academic success. It is imperative that educators and community based service providers develop and implement best practices to assist this population with attaining personal, academic, and employment success. It is my hope that this study will serve as an effective tool to impact positive changes in the lives of deaf and hard of hearing individuals who aspire to reach their dreams.

Limitations

The first limitation of the study was related to the number of participants in the study. While the recruitment process employed great efforts to recruit at least 10 participants for the study, the recruitment results yielded only seven participants who were deaf or hard of hearing and had attained personal or academic success as defined by the study criteria. The second limitation of the study was the use of an interpreter as a facilitator of communication. Practices were put in place to ensure accuracy of the information that was interpreted during the interview process. This was done through the use of interpreter and interviewer debriefing sessions, written summaries of interviews, and member checks.

Recommendations for Future Research

Little research exists regarding the best practices from the perspective of deaf or hard of hearing students in postsecondary educational settings. This study shed light on strategies and support mechanisms that led to the personal and academic success of seven deaf and hard of hearing individuals. A future area of focus for a research study might examine those barriers that exist for deaf or hard of hearing students at the postsecondary
level, which prevented personal or academic success. Such studies might include surveys, focus groups, and interviews to determine those factors that negated goal attainment for deaf or hard of hearing individuals in higher educational settings. Future studies might investigate primary and secondary educational experiences in an effort to determine if those experiences had an impact on the individual’s ability to meet their personal or academic goals.

While “frustration with communicating,” was a theme that emerged during the grounded theory analysis process, embedded within the theme was the concept of providing deaf and hard of hearing individuals with early and consistent access to communication and language within the home environment. Therefore, another focus of future research might be a longitudinal study to investigate success factors in those deaf or hard of hearing individuals who had an early access to communication and language at home and those who did not have access. Another recommendation for future research would be a study that investigates the possible correlation and effect on the success of deaf and hard of hearing individuals with learning disabilities. The ability to gain a broader perspective on learning disabilities and deafness would be significant to the field of deaf education, and other institutions of learning at primary, secondary, and postsecondary educational levels. A final recommendation for future research would be to further examine the relationships between hearing researchers and deaf study participants. It is recommended that the hearing researcher possess the ability to communicate directly with the deaf or hard of hearing participants in order to build trust, and foster positive relationships. This recommendation is consistent with the literature (Dickinson, 2010) regarding researcher responsibilities.
References


Appendix A

Instrumentation
Interview Protocol

Name: _____________________________________________
Gender: _____________________________________________
Age: _____________________________________________
Ethnicity: _____________________________________________

1. Please tell me a little bit about yourself?
2. How do you identify yourself in reference to your hearing ability and language?
3. What was the age of onset of your hearing loss?
4. Please share a story about your childhood as it relates to your hearing loss/deafness?
5. Describe your experiences in a classroom where ASL was used versus spoken English with the use of an interpreter? Did it have an impact on your learning?
6. What is your primary modality of communication?
7. Tell me about your experiences as a deaf or hard of hearing person in your family?
8. Can you tell me about your classroom experiences in high school? Experiences with teachers? Experiences with peers?
9. What were your expectations for education?
10. What were your plans immediately following high school? What were your dreams?
11. Please share a story about a positive experience as a deaf or hard of hearing student pursuing postsecondary education? Please share a challenging experience.
12. Describe some of the programs and or services that have facilitated your success in college. Were there any people that also contributed to your success?
13. As a follow up to question #12, what didn’t work?
14. Please tell me about your experiences in the workplace as a deaf or hard of hearing individual?
15. After having these experiences what advice would you give to an individual who is deaf or hard of hearing who decided to attend college or enter the workforce?
16. Is there anything else that you think I should know to help me make recommendations for individuals who are deaf or hard of hearing who decide to pursue their academic or personal goals?
Appendix B

Informed Consent
San Diego State University

Consent to Act as a Research Subject For One-On-One Interviews

(Perspectives on the Academic or Personal Success of Deaf or Hard of Hearing Individuals)

You are being asked to participate in a research study. Before you give your consent to volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

Investigators: I, Patrice Braswell-Burris, am the only investigator for this research study, and my education is as follows: I earned a B.A. degree in Communicative Disorders and a Master’s Degree in Deaf Education from San Diego State University. I am currently a third year doctoral candidate in San Diego State University’s Ed.D program. My dissertation advisor at San Diego State University is Professor Dr. Caren Sax, who also holds an Ed.D in Education from….

Purpose of the Study: The purpose of this study is to collect qualitative data regarding effective best practices for the success of deaf or hard of hearing students in community college. I will use these findings to make recommendations for program development for deaf or hard of hearing students within postsecondary educational environments. This will be done in an effort to elevate the percentage rates of deaf or hard of hearing students who successfully reach professional, personal, and academic goal attainment.

Description of the Study: This study will explore the factors that lead to personal or academic goal attainment among deaf or hard of hearing individuals. Deaf or hard of hearing individuals over the age of 18 who have attained personal or academic success, will be asked questions regarding their personal experiences that led to success in one-on-one interviews, which will last approximately 2 hours.

If you are selected to participate in the study, you will be asked 16 open-ended questions about your experiences as a deaf or hard of hearing individual pursuing your academic or personal goals. The one-on-one interviews will take place in a conference room at the Interwork Institute on Camino Del Rio Drive. An interpreter will be available for those participants who request interpreting services.

The criteria for inclusion of subjects in this study is as follows: (a) a deaf or hard of hearing individual who has obtained a degree from a two or four year educational institution, (b) a deaf or hard of hearing individual who has completed a certificate in an educational institution, (c) a deaf or hard of hearing individual who has completed a vocational/workforce training program.
It is essential to note that: (1) your participation is voluntary, (2) you will not receive any monetary compensation or incentives of any kind, (3) your real names will not be used, (4) you can drop out of the study at any time, and (5) your consent form must be signed prior to participating.

**Risks or Discomforts:** If a participant may have had an unpleasant experience with goal attainment, a participant may reflect upon unpleasant memories while responding to the interview. If he/she begins to feel uncomfortable, he/she may discontinue participation, either temporarily or permanently.

**Benefits of the Study:** I anticipate that the potential benefits resulting from my research will be: (1) a greater awareness of the factors that lead to academic or personal success among deaf or hard of hearing individuals (2) an awareness among faculty, staff, and administrators of two and four year institutions regarding best practices for the success of deaf and hard of hearing individuals in college settings, and (3) colleges can use my recommendations for program development for deaf or hard of hearing students in higher education institutions. I cannot guarantee, however, that you will receive any benefits from participating in this study.

**Confidentiality:** As the researcher, I realize the importance of maintaining confidentiality, and (1) I will personally collect all of the consent forms and secure them along with all notes and tapes in a locked file cabinet in my office. I am the only person, who will have access to the key. (2) I will maintain your confidentiality by not using your actual name. (3) I will assign codes to all the participants, and I will never identify you by name when I take notes and write my findings. (4) I will be audio and video taping your conversations, which you can review for up to 30 days from the time of recording; and (5) I will destroy all of the tapes after my dissertation is completed. Confidentiality will be maintained to the extent allowed by law. Federal regulations require that the Institutional Review Board (IRB) periodically review all approved and continuing projects that involve human subjects. To ensure that your rights as a subject are being protected in this study, it is possible that representatives of the Institutional Review Board may come to this research site to inspect study records.

**Incentives to Participate:** There is no incentive of any kind for participating in this study.

**Voluntary Nature of Participation:** Participation in this study is voluntary. Your choice of whether or not to participate will not influence your future relations with San Diego State University. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty.
Questions about the Study: If you have any questions about the research now, please ask. If you have questions later about the research, you may contact Patrice Braswell-Burris at (619) 518-9522 or pbrazzie@sbcglobal.net. If you have any questions about your rights as a participant in this study, you may contact the Institutional Review Board at San Diego State University (telephone: 619-594-6622; email: irb@mail.sdsu.edu).

Consent to Participate: The San Diego State University Institutional Review Board has approved this consent form, as signified by the Board's stamp. The consent form must be reviewed annually and expires on the date indicated on the stamp.

Your signature below indicates that you have read the information in this document and have had a chance to ask any questions you have about the study. Your signature also indicates that you agree to be in the study and have been told that you can change your mind and withdraw your consent to participate at any time. You have been given a copy of this consent form. You have been told that by signing this consent form you are not giving up any of your legal rights.

____________________________________
Name of Participant (please print)

_____________________________________ __________________
Signature of Participant     Date

_____________________________________  __________________
Signature of Investigator     Date
Appendix C

IRB Approval
Dear Patrice Braswell-Burris:

The SDSU Institutional Review Board approved the project referenced for continuation on February 5, 2011 in accordance with SDSU’s Assurance and federal requirements pertaining to human subjects protections within the Code of Federal Regulations (45 CFR 46; 21 CFR 50). This approval applies to the collection and/or analysis of data collected based on procedures described in your protocol and the information you provided within your report of progress. Approval carries with it the understanding that you will contact the IRB to obtain authorization to implement any proposed changes to the protocol, to document a change in your affiliation with SDSU (student), and/or to report study completion (recruitment, data collection and analysis). **Project approval expires one year from this date.**

As your study requires the use of a stamped consent document, then a copy of the re-approved and re-stamped consent form has been uploaded to your protocol file within the vIRB system, within the “Supporting Documents” section. This document bears the IRB’s stamp of approval. Please print a copy of this stamped form to use when documenting informed consent from research participants. Changes may not be made to the consent document without prior review and approval of the IRB. You are required to keep signed copies of the consent document for three years after your project has been completed or terminated.

The following is a list of the file-names of the IRB-approved and stamped consent forms:

*Braswell-Burris Informed Consent Form 2-9-10_stamped.pdf*

If your study requires consent document translation, please note that the SDSU Institutional Review Board (IRB) does not verify the accuracy of the translated document. IRB approval of this document for use in subject recruitment is based on your assurance that the translated document
reflects the content of the IRB approved English version of the document.

For questions related to this correspondence, please contact the IRB office ((619) 594-6622 or e-mail irb@mail.sdsu.edu). To access IRB review application materials, SDSU's Assurance, the 45 CFR 46, the Belmont Report, and/or any other relevant policies and guidelines related to the involvement of human subjects in research, please visit the IRB web site at http://gra.sdsu.edu/research.php.

Sincerely,

Jeanne F. Nichols, Chair
SDSU Institutional Review Board

Amy McDaniel
Regulatory Compliance Analyst

Choya Washington
Regulatory Compliance Analyst

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