

Spring 5-8-2017

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Johnson, Stacey L., "Deaf Education: Bicultural Bilingual Education and Total Communication in General Education" (2017). *Honors Theses*. 450.

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Deaf Education: Bicultural Bilingual Education and Total Communication in General Education

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Authors Note:

This paper was prepared in fulfillment of the Honors Program Thesis requirement with Professor Karen Millsap serving as the faculty mentor.

Abstract:

Below is my thesis which was completed in fulfillment of the Honors Program Thesis requirement. I researched two approaches paired with educational settings, bicultural bilingual approach in residential schools and total communication approach in general education classrooms, to determine which best served deaf and hard of hearing students.

Introduction

This paper will examine scholarly work in the field of deaf and hard of hearing (d/hh) education in relation to two different approaches used by teachers in this field. The researcher is searching to find which approach, bicultural bilingual in a residential setting or total communication in general education best serves students who are deaf and hard of hearing in the United States. Upon beginning research, it was quickly noted that you cannot look at only setting, communication, or approach; they are tightly bound and must be looked at together.

Background

Deaf is more than the inability to hear. According to National Association of the Deaf website, deaf (with lowercase “d”) refers to the audiological condition of not hearing, while Deaf (with uppercase “d”) refers to a group of people who share a culture and language (American Sign Language). The Deaf community is strong and has a connection to the larger society through their language and culture. People who are deemed “hard of hearing” because of their audiological hearing status may identify as Deaf, or as hard of hearing. Being culturally Deaf is not limited to only those with profound hearing losses (Community and Culture, 2016). According to O’Brien and Placier (2015), those who identify with the Deaf community and culture wish to see their history, culture, language, values, and beliefs preserved and passed on to the next generation of deaf and hard of hearing children (p. 322).

As Dammeyer and Marschark state, in primary and secondary school, hearing loss increases the risk of language delay and academic difficulties (2016). Why is this? D/HH students are not receiving auditory input that their hearing peers are, so key educational areas such as early language access and vocabulary are delayed, which directly affects education

(Easterbrooks and Beal-Alvarez, 2013). In the research of Reed, Antia, and Kreimeyer it is stated that within the field of deaf and hard of hearing education, research is limited, due to students being scattered in the general education setting which makes it hard to gather information on those students specifically (2008). Federal law ensures that students who are eligible receive services throughout the United States. This law, IDEA, regulates how states and agencies provide early intervention, special education, and related services to those who are eligible, aged birth through 21 (“Building the Legacy: IDEA 2004”). With limited information available, and the serious risk of language delay and academic difficulties, more research needs to be done to better educate this population of students.

According to the National Association of the Deaf, American Sign Language (ASL) is a visual language made up of hand shapes, hand/body movement, and facial expressions. ASL has its own grammar and syntax, and is a living language (like spoken languages) that grows and changes overtime. Most countries have their own form of sign language, as ASL is not universal (What is American Sign Language, 2006). Total Communication (TC) is not a language; rather it is a mode of communicating. TC involves all means of communication including speaking, listening, sign language, natural gestures, finger spelling, body language, and lip reading, as defined by Communication Considerations: Total Communication (2014).

Population of Deaf and Hard of Hearing Children

The Centers for Disease Control and Prevention share that 2 to 3 out of every 1000 children born will have a detectable hearing loss (2007). Of those born with hearing loss, 90% are born to hearing parents (Mitchell & Karchmer, 2004). Mitchell and Karchmer say that while these children have less access to a fluent first language, those born to deaf adults achieve that through sign language; they also grow up with deaf culture (2004, p. 139). This puts these

students, deaf of deaf, at an advantage when entering school, as they will have a strong first language compared to their peers who have hearing parents.

The population of deaf and hard of hearing has changed greatly over the past twenty years. Hearing screenings, hearing devices, and implants have changed deaf and hard of hearing children today, as compared to twenty years ago (Raeve, Baerts, Colleye, & Croux, 2012). According to Raeve et al. (2012), in Flanders (area in Belgium), approximately 93% of deaf children born receive Cochlear Implants. These implanted students are dispersed across a variety of educational settings, using a variety of approaches (Raeve et al., 2012). Currently in the United States, there is a high demand for deaf and hard of hearing students to participate in the general education system, as stated by Mitchell and Karchmer (2006). Mitchell and Karchmer (2006) inform that there are indeed more and more students leaving residential school settings and going into general education schools, they describe this as “pebbles in the mainstream.” (p. 95). The reason for the description is because they are usually the only child at their new school that is, in fact, deaf and hard of hearing. Using information from the 2002-2003 Annual Survey, it is estimated that at least 80% of the general education schools serving d/hh students have three or fewer students with any type of hearing loss (Mitchell & Karchmer, 2006, p.99).

Academic Performance of Deaf and Hard of Hearing Students

Research by Easterbrooks and Beal-Alvarez points to the fact that in 2004 in the United States 17% of the deaf and hard of hearing students, 14-22 years old, dropped out of high school; while the percent of hearing peers to drop out was 4.7% (2013, p. 2). Easterbrooks and Beal-Alvarez also say that 72% of the deaf and hard of hearing students who graduated high school and attended college, only 25% graduate with a degree (2013, p. 2).

One of the biggest concerns related to deaf and hard of children is reading. Research conducted shows that 35% of the United States population reads at a basic to below-basic level, deaf and hard of hearing included (Easterbrooks and Beal-Alvarez, 2013, p. 8). Among d/hh students, according to Easterbrooks and Beal-Alvarez (2013), most graduate high school reading on a fourth grade level, and 30% of those who were deaf before turning the age of 3 may leave school as considered “functionally illiterate,” with a reading level of 2.9 (p. 8).

Language Acquisition

First Language Acquisition

Humphries, et al. (2013) argues there is a constitutional right to language. For children to learn a first language successfully, they need to be exposed regularly and frequently before the age of five years old (p. 873). The plasticity of the brain is the reason that we, as humans, can learn a first language, fluently. The brain loses plasticity after the age of five, which is why it is important for repeated and consistent exposure to a first language before then (Humphries, et al., 2013, p. 873). Humphries, et al. tells us that without a strong first language students cannot be expected to learn to read, do mathematics, or think critically (2013, p. 874). For students who are deaf and hard of hearing a signed or spoken first language may be used, although Humphries, et al. warns that spoken language may not be enough. As spoken language is not a natural language for those who are deaf and hard of hearing, it may not be enough for these students, while sign language is natural language for these students (2013, p. 874).

Easterbrooks and Beal-Alvarez offers insight on deaf and hard of hearing students and their vocabulary development. As d/hh children often times have limited access to communication this directly affects their vocabulary acquisition, whether through sign or spoken

language (2013, p. 89). It has been noted that when those the child communicates with daily (parents, teachers, caregivers, etc.) have good communication skills; the child will have better communication. The better a child's vocabulary, the better they will be capable of reading and comprehending English text (p. 92).

Second Language Acquisition

Students who come to school with a first language other than English are already at a disadvantage, most classrooms in the United States use English to teach curriculum. A student who does not know English cannot be expected to follow lessons and learn when they do not speak the language. Roseberry and Brice discuss how people learning a second language acquire BICS (Basic Interpersonal Communication Skills), which takes around two years. BICS is the ability to socialize and communicate with others who speak your second language on a basic level. When thinking of academics, acquiring CALP (Cognitive Academic Language Proficiency) takes 5-7 years (Roseberry & Brice). That means that before a person can learn through that language, or read academically challenging text in that language, they need more practice and exposure. Carry that information over to students who are deaf and hard of hearing, their first language may be ASL, written/printed English is a new language for them. Learning through that language will naturally be a struggle, until they reach the CALP level. So in the beginning of educating students who use ASL as a first language, it makes sense to present information in ASL while teaching the student the second language, which is reading and writing English.

Settings

Like any student in the United States, deaf and hard of hearing students have options as to where they are educated. Their families may choose a residential school for the deaf, where the child will stay in a residence hall during the school year. Families may also choose general education in a school close to home. Ultimately, this is the decision of the parent/guardian. As a parent/guardian of a student who is d/hh, they choose which language environment they want their child to be in. This information will go into the student's Individualized Education Plan (IEP) which must be followed (Building the Legacy: IDEA, 2004). This is where information about language, accommodations, amplification, etc. will be found for each child who is deaf and hard of hearing.

Laws Impacting Deaf Learners

In the United States there are three laws that affect deaf and hard of hearing students, IDEA, ADA, and Section 504 of the Rehabilitation Act (Gallaudet University Center). These federal legislations grant and protect the rights of students who have disabilities, including deaf and hard of hearing students, by ensuring they have equal access in public facilities and at school (Gallaudet University Center). The Individuals with Disabilities Education Act (IDEA), according to the US Department of Education, requires all students up to the age of 21 must be provided a free appropriate education in the least restrictive environment (LRE) and with accommodations. This includes developing an Individualized Educational Plan (IEP) for all children with disabilities who are in school. In regards to the LRE, the law states that students with disabilities should be removed from the regular classroom environment only if they have "a severe disabling condition that can be addressed in a more focused environment" (US Department of Education, 2010).

According to the article *Protecting Students with Disabilities*, Section 504 of the Rehabilitation Act is the most relevant to students who are deaf/hard of hearing. This section states that students with disabilities (including d/hh students) have the right to full access of school and public activities, during and after school. Section 504 does not require that students have a written plan to follow, but quite often schools do so and refer to it a 504 Plan. (*Protecting Students with Disabilities*).

The third law to be discussed is the American with Disabilities Act (ADA). According to the Gallaudet University Center the ADA is a civil rights law that prohibits discrimination based on disability. When thinking of deaf and hard of hearing students particularly, it is the schools job to ensure the curriculum, programs, and services are accessible and that barriers have been removed (Gallaudet University Center). Under ADA is where you will find students rights to qualified interpreters (on site or through video remote interpreting services), note takers, assistive listening devises, assistive listening systems, closed-caption decoders, etc. (Gallaudet University Center).

Residential Schools

Schildroth informs us that the first residential school for the deaf opened in Hartford, Connecticut in 1817, this time period referred to the school as an “asylum” and was viewed as not educational but charitable. Within a century there were 64 public residential schools serving over 10,000 deaf and hard of hearing children (1980, p.80). During the time that sign language was banned in residential schools, O’Brien and Placier (2015) explains how deaf children would teach their peers sign language as a form of resistance and to continue their culture based on visual communication (p.322). Residential schools have long provided students with opportunities of socialization and language practice not only while in classes, but at the residence

halls as well (p. 325). Deaf and hard of hearing students have complete access in this environment. Later we will relate residential schools with the bicultural bilingual approach to education.

General Education Schools

General education schools must follow IDEA, ADA, and Section 504 as mentioned before. These laws protect the rights of all students who are deaf and hard of hearing. Research by Olivia and Lytle (2015) informs that two of the largest differences now, compared to when IDEA was passed originally is the presence of sign language interpreters and the growing number of itinerant teachers of the deaf and hard of hearing in K-12 settings (p. 1). Olivia and Lytle also bring notice to the fact that within the last 40 years enrollment in general education settings have increased, while enrollment at residential schools have decreased (2015, p. 1). Deaf and hard of hearing students who are in general education settings use support services in the classroom to receive instruction, some may use FM systems connected to their hearing aid, others may use sign language interpreters. The presence of interpreters in the classroom is referred to by Olivia and Lytle (2015) as “mediated education.” Mediated education means that communication between teachers and peers and the deaf and hard of hearing student is indirect, via the interpreter (p. 2). Research has shown that some view using an interpreter in education as fine, while others strongly disagree; later we will look at why this is.

Approaches

Bicultural Bilingual Approach

In a bicultural bilingual environment ASL serves as the first and instructional language of deaf and hard of hearing students, while English is learned via reading and writing (LaSasso &

Lollis, 2003, p. 80). LaSasso and Lollis offer four supports of ASL as a first language, these four supports are as follows: (1) the perceived naturalness of ASL and unnaturalness of English, (2) higher scores of deaf children with ASL signing Deaf parents on standardized reading tests, compared to deaf peers with hearing parents, (3) research that shows that deaf children have the spatial memory abilities able to process ASL, as compared to sequencing memory abilities associated with English (4) linguistic interdependence theory that states that competence in a first language can lead to competence in a second language (2003, p. 80).

According to Barnard and Glynn, language and culture are so intertwined and reliant on one another that they cannot be separated (2003, p. 1). As for students in a bicultural bilingual education setting, they do not have to be separate. Wilkens and Hehir (2008) discuss how deaf children are at risk for isolation in the general education school setting as they rarely have deaf and hard of hearing peers/adults around them in this type of setting (p. 275). In a bicultural bilingual setting this is not a risk, since they are able to communicate with everyone around them, all of the time.

In this setting, students who are deaf and hard of hearing are not receiving “mediated” instruction through an interpreter; they are getting direct instruction through a certified teacher of the deaf and hard of hearing (Oliva & Lytle, 2014, p.8). Cummins (2015) explains the struggle of learning through a second language before reaching the CALP level of language ability, which happens often in general education. Students are expected to take tests in written English while they are still learning the language. This does not occur in the bicultural and bilingual environment because the approach uses students FIRST language to teach content and curriculum while teaching English (the second language) so students can later begin learning through English.

Total Communication Approach

Total Communication is defined as a “philosophy of educating children with hearing loss that incorporates all means of communication; formal signs, natural gestures, finger spelling, body language, listening, lip-reading and speech,” according to Communication Considerations (2014). Typically, children in this setting use hearing aids or cochlear implants (Communication Considerations, 2014). The goal of TC is for each child to gain language competence, although it should be noted that TC is not a natural sign language, it has been created to be used with spoken language as a multisensory approach, as learned in Yanbay, Hickson, Scarinci, Constantinescu, and Dettman (2014, p. 123). Total communication does not replace a child’s first language; the first language should be either American Sign Language or a spoken language such as English.

Training for Teachers

The study conducted by Barbara R. Schirmer discusses the raise for concern in special education doctoral programs and jobs. The study looked at 127 teacher educators in deaf education at post secondary institutes across the United States, learning that most had published very little over their careers, and less than half had their dissertations published (2008, p. 411). While this may seem like nothing to some, it is actually very telling of the emphasis and attention paid to deaf education. Schirmer goes on to say that the number of qualified faculty leaders in deaf education is in short supply. Why? Schirmer assumes it is because there are limited doctoral programs available in the United States to obtain the degree, and for those with it to find work (2008, p. 411-412).

According to the Commission on Education of the Deaf (1988) these concerns are not new. Of fifty two recommendations made to the United States Congress, designed to improve

education of deaf and hard of hearing students, one was to improve the quality and quantity of research being done (Commission on Education of the Deaf, 1988). Another study conducted around the same time, 1989, found that there were a small number of people conducting most of the research that actually assessed effectiveness of instructional interventions with deaf students (King). Much of the journal articles published during this time, according to King, were opinion and program description pieces (1989).

Looking at the information above, this is why I became interested in researching deaf and hard of hearing education. Research is limited because of the small population size of students who are deaf and hard of hearing, and the small opportunity for professional growth. Deaf and hard of hearing students seem to fall through the cracks in our system and are not receiving the education they deserve, and reason listed above are why. Now, let us look at how teachers are being trained to work in the two environments in this paper, bicultural bilingual and total communication in general education.

Teachers in the Bicultural Bilingual Setting

The Star Schools Project they have developed a 2 year/4 semesters program for their teachers of deaf and hard of hearing students, which has 4 levels (Nover, Andrews, Baker, Everhart, & Bradford, 2002, p. 19). The four levels are: bilingual theories and practices I, bilingual theories and practices II, bilingual assessment and methodologies I, application of bilingual strategies and assessments. Each level of the program contains 12 themes that relate to bilingualism, language teaching, and language learning issues (Nover, et al., p. 19). Each level and theme is related specifically to students who are deaf and hard of hearing.

With high regards nationally for its Deaf Education program, McDaniel College also has a specific and rigorous program. According to McDaniel College's website, to apply for the MS in Deaf Education program you must meet certain requirements, such as: GPA of 2.5 or higher, passage of the American Sign Language Proficiency Interview (ASLPI), and passage of the English Proficiency Exam (EPE) (MS in Deaf Education). The ASLPI assesses how well and at what level a person signs, so in order to get into the program you must show that you have a proficient signing skill. McDaniel also requires passage of the English Proficiency Exam which assesses a person's skill in English. This program focuses on the appreciation and acceptance of Deaf culture and ASL which is important when working in a bicultural bilingual environment.

Teachers in the Total Communication Setting

While there is no specific program dedicated to teachers of the deaf and hard of hearing who use TC, they still must obtain a BS in deaf and hard of hearing education. Different universities and programs have different requirements. For the sake of this paper, I will look at the program I am currently in, at Eastern Kentucky University. According to the Eastern Kentucky University website, the requirements for admission into the Education of the Deaf and Hard of Hearing program are: 2.75 GPA or higher, 30 undergraduate credit hours, completion of introduction to education course (Education of the Deaf and Hard of Hearing).

Now, we will look at requirements for a MS in deaf and hard of hearing education from Texas Woman's University. The requirements for this program are as follows: must have a Bachelor from accredited university, 3.0 GPA or higher, and official GRE scores (no minimum). This program requires sign skills to be evaluated each semester of the program (Master of Science in Deaf Education). Looking at these two universities (Eastern Kentucky University and

Texas Woman's University) the requirements are different from the bicultural bilingual program requirements. We will look at this more below.

Why is this important?

Let us think back to the requirements for the bicultural bilingual program. The McDaniel College program required those applying to take the ASLPI and EPE prior and submit their scores (MS in Deaf Education). What does this show? This shows that McDaniel cares about how well those in their program can sign and communicate with their future deaf and hard of hearing students. The programs looked at under TC and general education did not have to show their ASL skills. Yes, those programs had higher GPA requirements, yet were not focused on language skill, which is the one aspect that deaf and hard of hearing students are most behind in (Easterbrooks & Beal-Alvarez, 2013).

Should education of deaf and hard of hearing programs focus on language abilities of the teacher, so they may serve as a language model for the students? This question I respond to with yes, they should. It has been said that some deaf and hard of hearing students graduate high school deemed functionally illiterate (Easterbrooks & Alvarez, 2013, p. 8). TC is a mode of communication and not a language, so it is not providing the deaf and hard of hearing student with a language model. Not all d/hh students who use TC have residual hearing, so not all benefit from the spoken part. While not all d/hh students know ASL, so they do not benefit from the signed part. Doing both, simultaneously, how does this model language for students? We know from Roseberry-McKibbin and Brice that in order to learn a second language there must first be a strong first language. According to Cummins, it takes 5-7 years using a second language before it is possible to understand academically in that language (2015). Cummins quotes, "We should not assume that non-native speakers who have attained a high degree of fluency and accuracy in

everyday spoken English have the corresponding academic language proficiency” (Cummins, 2015). So how can teachers of the deaf and hard of hearing expect these students whose first language is not English to be able to start learning content and curriculum through English as early as kindergarten and first grade? Should those students not be taught content and curriculum in their first language?

Deaf and Hard of Hearing Adults Perspectives on Deaf and Hard of Hearing Education

Deaf and hard of hearing adults are some of the only people who know what it is that deaf and hard of hearing students experience in school. According to Oliva and Lytle, who interviewed many deaf and hard of hearing adults about their experiences in school, the general education public school is not a deaf and hard of hearing friendly environment, especially for learning. The authors draw attention to all of the noise (shuffling papers, air conditioning, computers, doors slamming, etc.) paired with constant spoken conversation seriously limits the deaf and hard of hearing school child (2014, p. 2).

Deaf and hard of hearing adults, who have been through school in the general education setting, have strong feelings about the least restrictive environment (LRE). Authors, Oliva and Lytle share what adults have said about this. These adults are concerned with all that is being missed in the general classroom setting by deaf and hard of hearing students, things such as peer conversation. The adults believe that things that take place daily in the school, the informal information being shared, is equally important to the formal information the teacher presents (2014, p. 3). Deaf and hard of hearing adults want it noted that in terms of general education and LRE that deaf and hard of hearing children are the exception and not the rule (Oliva & Lytle, 2014, p. 3). Oliva and Lytle urge educators of deaf and hard of hearing students to realize that as

American education strives to keep deaf and hard of hearing students in the LRE, meaning general classroom, that this is the most restrictive environment for them (2014 p. 12).

As Roberson and Shaw (2015) explain, most deaf and hard of hearing children have hearing parents, who struggle to find a school that will “maximize language acquisition, a sense of belonging, concept development, social competency, and ultimate societal contribution of their children” (p. 226). These parents, most likely, have not met or interacted with deaf and hard of hearing people prior to their child, so they are shocked at this new world they are discovering, and doing the best they can to adjust and make decisions (Roberson & Shaw, 2015, p. 226).

Conclusion

Thus far this paper has discussed the many issues affecting deaf and hard of hearing students in the school system. Two approaches have been analyzed, the bicultural bilingual approach in residential schools and the total communication approach in general education. Of the two, I found the bicultural bilingual approach has more to offer the deaf and hard of hearing learner. The learner is not relying on someone to mediate or interpret what is being taught; or having to split their attention between trying to listen and process signing at the same time, while too learning from what is being said (Oliva & Lytle, 2015). Bicultural bilingual approach uses the student’s first and natural language as a base for instruction, supporting it by teaching to read and write English (LaSasso & Lollis, 2003, p. 80). The total communication approach does not provide a full language model for the deaf and hard of hearing students, which is an area they struggle in compared to their hearing peers (Yanbay, et al., 2014, p. 123). My interpretation of the research inclines me to suggest that in order to best and most appropriately educate deaf and hard of hearing students, teachers should practice the bicultural and bilingual approach, as

opposed to the total communication approach. Parents, when looking for school settings to place their child, I would encourage them to look for residential schools rather than general education, public schools, where deaf and hard of hearing students may be lost in the shuffle.

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