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Educational Needs of Late-Deaf Learners

MSSE Master's Project

Submitted to the Faculty  
Of the Masters of Science Program in Secondary Education  
Of Students who are Deaf or Hard of Hearing

National Technical Institute for the Deaf  
ROCHESTER INSTITUTE OF TECHNOLOGY

Developed By:

Mitchell Bacot

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Student Signature

In Partial Fulfillment of the Requirements  
For the Degree of Master of Science

Rochester, New York

May 19 2007

Approved:

Harry Lang

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*“Each one of us is destined to become the hero in at least one story – our own.”*  
~ Joseph Campbell

**Overview:**

Information available centering on late-deafened individuals is scarce. Educators have few resources to guide them and late-deafened students are often left to unfairly fend for themselves in the educational environment. Where can these individuals learn about the experiences of others with shared circumstances? What does the available literature indicate? In this paper, I will summarize available literature and provide a resource with regard to these issues.

I grew up hearing, attended hearing schools, socialized with hearing friends, family, teachers, dated hearing girls, spoke by voice on the phone, listened to music, and did just about anything that a person without a hearing loss regularly does. During a physical examination for the middle school soccer team it was discovered that I had high blood pressure. This left the school physicians highly befuddled. A slew of medical examinations followed. At the age of 13, after visiting a countless number of doctors, I was diagnosed with a medical disorder, Neurofibromatosis II, which would eventually cause profound deafness. Having lost complete hearing in my left ear at the age of 16 and then in my right ear at the age of 18 (both from surgeries), I eventually became interested in others who became deaf during adolescence. Because of this curiosity, an investigation on the subject was on the horizon.

For the purpose of this study the term “late-deafened” has been defined to mean anyone who has acquired deafness postlingually (after the development of speech and language) having already been immersed in the hearing society by means of schooling,

social connections, or other. Under deep consideration, it was determined that the age of focus for this study will be individuals who have acquired their deafness between the ages of 10 and 18. These are also “pre-vocational” late-deafened persons. This paper focuses on the personal experiences of late-deafened individuals in the school room, how their deafness should be accommodated in the classroom learning environment, and vital pieces of information that any teacher should keep in mind when working with late-deafened learners. Both contemporary and historical data are used to support the recommendations in this paper.

An inductive analysis approach using a literature review will be employed, where already published works were analyzed in a qualitative manner and tied together to form a resource, drawing implications for teachers of late-deafened students who are in mainstream settings or residential/center schools.

There are approximately 12,000 babies born in the United States every year with some degree of hearing loss which is equivalent to 3 out of every 1,000 births (Webster & Associate, 2003). The degree to which these babies can hear ranges widely from “a slight problem hearing in one ear to complete deafness in both ears” (National Center for Health Statistics, 1994, p. 5). At any one time, if the total deaf population were to be considered, it would tally to approximately 28 million Americans (Statistics about Hearing Disorders, Ear Infections, and Deafness, 2006). With the American population reaching 299,398,484 in the year 2006 (U.S. Census Bureau, 2006) this 28 million Americans with some degree of hearing loss seems quite large (over 10 percent). While the number of Americans who experience some degree of hearing loss is quite high, only 14.7% lost their hearing between the ages of 3 and 18 (National Center for Health

Statistics, 1994). As pointed out in Van Naarden, Decoufle, & Caldwell (1999), almost one-third of all deaf individuals have at least one other developmental disability. Taking these statistics into consideration it can be determined that of the 14.7% who lost their hearing between the ages of 3 and 18, one-third of them have a second disability leaving approximately 9.849% without a second disability. The Gallaudet Research Institute (2004 – 2005) shows that, in considering the national population of students, those who lost their deafness after the age of 8 accounts for approximately 1.1% of this entire population. This means that of the 9.849% who do not have a second disability and are under the age of 18, only 1.1% of them are over the age of 8 or .11%.

Since those who lose their hearing later in life usually do not experience secondary disabilities one may assume that most of those deafened between the age of 10 and 18 generally do not need the extra attention in that regard by teachers as do those students with concomitant disabilities. These students do, however, confront obstacles that those who are born deaf might not encounter to the same degree. Some of these issues are learning to process information primarily through the visual channel, the effects that technology plays on their experiences in the classroom, the effects that family support can play on their success and motivation in the classroom, how the development of a new identity can effect their accomplishments in the classroom, and their struggles in relearning how to communicate with deaf and hearing peers and teachers.

Since the majority of deaf people in the United States are not late-deafened (as defined in this paper), there is little information regarding this topic. This present review may add to the base of knowledge about late-deaf individuals and their educational needs

providing recommendations for teachers who work with late-deafened individuals in residential/center schools or mainstream settings.

Most of the literary works centering around deafened people such as Beethoven (Kinderman, 1995; Solomon, 1998), Thomas Edison (Josephson, 1959; Israel, 1998), or Helen Keller (Wepman, 1987) do not represent well the life experiences of the focus group for this study; nor do they focus on educational issues. There are several books that will soon be available about people who share the desired characteristics with the focus group for this study such as Robert F. Panara and Robert Davila. These books will discuss life experiences and school experiences in depth, but these books cover a period of more than half a century ago and many new developments have occurred since then. Currently, there are short sketches or anecdotes that include very useful information which are scattered in books, articles, and on the World Wide Web. The one resource that I have found that is particularly useful is Clark's (1998) "Tipsheet" (Appendix A). Clark's commendable effort focused on a few communications tips, a few related to support services, and a few related to general disability issues and was written for postsecondary students. Some of this tipsheet provides a very useful start for this study and I will expand on some of Clark's tips and add others that I believe are relevant based on inductive analysis from books, articles, and the World Wide Web. These include identity issues, emotional adjustment, and family support.

### **Review of the Literature:**

**“As I reflect now on my experiences in...schools settings, I think that the years after I lost my hearing were probably the worst years of my school life because I went back to the same classroom a few days after I became deaf to the same friends and the same teacher. I was 12 years old at the time and the thing that struck me the most was the attitude change of those people who knew me, joked around with me, taught me how to be a very good student”**

**(Dianne Brooks, 1992, p. 62).**

### **Learning to Learn Visually:**

It could be argued that one of the greatest distinctions between that of a hearing student and a late-deafened student is the way in which they can take in and absorb information. “Visual learning is a proven teaching method in which ideas, concepts, data and other information are associated with images and represented graphically” (Wikipedia: Visual Learning). Although approximately six out of every ten hearing students are visual learners in terms of learning styles, the typical hearing student’s classroom places a strong emphasis on aural learning which, in most cases, is parallel to that of the late-deafened student’s experience up until the point of deafness. Late-deafened students will need to develop ways to enhance their adaptation to speechreading, communicating in sign language, or other means for retaining information--learning visually is a necessity.

The Association of Late Deafened Adults (ALDA) is an association aimed at helping those who are late-deafened deal with the situation at hand. Though they tend to focus more on people who have lost their hearing “after the age of adolescence (13 and above)” they point out that late-deafened people “cannot understand speech without visual clues, and thus cannot rely on their hearing as a means of receptive communication. Instead, late-deafened adults must primarily depend on some visual mode of receptive communication, such as cued-speech, speechreading, sign language, or text-reading” (ALDA-Los Angeles: Chapter By-Laws, 2004).

*Accessing Classroom Information Through the Eyes:*

As Robert F. Panara found out shortly after the onset of his deafness, a new method to ensure success in his public school classroom needed to be discovered. He practiced hard at speechreading to assist in understanding the teacher’s instructions and what his classmates were saying. After a very short time, however, it became evident that “reading lips was useless in the classroom when trying to understand the teacher” (Lang, in press). Bob was soon exposed to the early makings of what is now known as a note taker. This “note taker”, however, also had the dual responsibility to repeat important information the teacher had said for Bob to speechread. This was partially effective but for the most part Bob resorted to a lot of reading and “self teaching.” “Bob found it necessary to just focus on reading the textbook in class. When a *McGuffey’s Reader* was used, which included many poems, he would hide the book and, regardless of what was being discussed in class, memorize whole passages of verse” (Lang, in press).

Zupp (2006a) explains her experiences with making sure she will have the best possible chance to speechread during her classes. "Because some of my classes were held in large forum halls, I tried to arrive ahead of others so I could get a front-row seat. (I had to sit in the front in order to lipread the professors who were lecturing.)" (p. 18).

Arranging a seat in the classroom to maximize the ability for speechreading is a common occurrence among late-deafened students. "I did not know anything about sign language interpreters or anything like that," wrote Brooks, "so the only thing I did differently was to ask people if I could sit in front of them or if I could sit in front of the classroom and do lipreading the best that I could" (Brooks, 1992, p. 60). As with LaRhona Zupp, Dianne Brooks indicates that sitting in the front of the classroom would give better visual access to the teacher's lips allowing a greater chance to successfully speechread.

Speechreading, however, does not always provide the desirable access to the spoken language. Failed attempts to speechread are a common theme among late-deafened people. Stewart (2003) epitomizes the complexities of the English language when he pointed out that "speech consists of elements that differ from each other in the way they sound and yet do not always differ in the way they look on the lips. Only 30 percent of all English words are distinguishable by reading the lips alone" (p. 60).

Zupp (2006a) describes another problem encountered with speechreading. She explains her experiences during her school years when relying heavily on her eyes to decipher information. "Not surprisingly, I would arrive home each day after classes and sleep for hours. My eyes were exhausted. My brain was fried. The energy it took to try to lipread and follow the information was enormous, and I was spent!" (p. 19).

Though speechreading the English language may be fraught with challenges, and other outlets may provide a more feasible communicate route, this discovery of sign language as a visual mode of receiving information in the classroom is often made the hard way. As Miguel Aguayo has described, “I learned sign language by mingling with people at the deaf club. I found it surprisingly easy to learn. For eight years I had been getting audible information visually, albeit with a great deal of effort. Even though their sign language was unfamiliar, these people were putting out the information visually in the first place. In fact, in four visits I had acquired a lot of vocabulary and was expressing entire thoughts in sign language” (Woodcock & Aguayo, 2000, p. 121). While the late-deafened students themselves may not be aware of the various possibilities assisting in visual ease we, as teachers, need to present the various routes so that each student can make their own personal decisions.

Coming to the realization about the need for self advocacy for visual access depends on the resources and strategies available to the late-deafened person, and often requires a long period of adjustment before one gains confidence and assertiveness. There are accommodations in the classroom which aid in visual comprehension, but these services are not always needed by all late-deafened individuals. Consequently, requisition for needed services is often easier said than done. “Whether marginalized or not, the need is universal—we must encourage in students the ability to be self-directed learners” (Lang & Meath-Lang, 1992, p. 81). The ability to ask someone to talk more slowly so their lips are easier to read, to look at you when they are talking, or even to write things down when speechreading is to no avail requires a lot of confidence and self-

assurance. Brooks agrees when she said, “It took me a very long time to be able to admit that I need that kind of thing, a very long time” (Brooks, 1992, p. 63).

When considering all of these possibilities, however, one should note that learning one of them does not necessarily render someone bilingual. Lucas (2001) touches on this idea when she says that, “some people who are signers or who communicate with some kind of manual system are not bilinguals. For example, signers of a manual code for a spoken language exclusively, who perhaps read and write in that spoken language, are monolinguals. This might include people who are late deafened after acquiring a spoken language, and who then use a signed code for that spoken language” (Lucas, 2001, p. 43).

In general, educators must be aware that late-deafened individuals are experiencing an adaptive process of learning to rely less on their ears and more on their eyes. Some will be able to adapt quicker than others but there will be a period of adjustment nonetheless. Although this need for visual stimuli is one both born deaf and late-deafened students share, late-deaf students will have to learn to adjust to this difference during adolescence whereas those who were born deaf have been growing up with this need.

### **Communicating with Hearing and Deaf:**

“Communication allows people to exchange thoughts by one of several methods. There are auditory means, such as speaking or singing, and nonverbal, physical means, such as body language, sign language, touch or eye contact” (Wikipedia: Communication). As the cause of late-deafness varies, so too does its rate of progression.

The spectrum for the rate of hearing loss ranges from over night to gradual increments. Those who lose their hearing over longer periods will have more difficulty noticing its reduction while those who lose their hearing suddenly might have more difficulty admitting it. “Our society is full of people who deny to themselves the fact that they are hearing impaired, while still others, who are aware of their hearing problems, do their best to disguise its presence to the world at large” (Ross, 1996). Eric Lopatin (2006) considers this predicament and concludes that, “The experience, where one doesn’t notice something until it starts to interfere with daily life, must be common to many disabilities” (p. 4).

#### *Aural Communication:*

Regaining the confidence in a conversation after becoming late-deafened is a sensitive issue. Dianne Brooks writes of the need to develop confidence, “I had previously not been able to tell people that I couldn’t hear. It wasn’t that I was pretending not to hear, I just wasn’t using it. And then I became more confident at being able to say, ‘I can’t hear, would you actually look at me so I can lip read’” (Brooks, 1992, p. 63).

My own hearing loss was a gradual process up. When it became especially difficult to hear I would mimic the other party in my conversation. If they were talking and I had no idea what they were saying I would watch for body gestures and facial expressions showing such emotions as aggression (and I would sympathize with them) or humor (and I would laugh with them)—all the while I would rarely understand what they were talking about. I would oftentimes feel as though the declaration that I did not

understand them would be a burden and nuisance to them. I resisted asking them to write it down. I simply faked understanding.

“Faking it” appears to be a common theme. During the early years of Zupp’s (2006b) deafness she wrote that, “I quickly discovered how to wear a plastic smile that would become my protective mask during those early years of adjustment along my silent journey” (p. 1). Another example can be found in Schlau’s (2004) study when Subject “FR” explained that she would not let anyone know of her hearing loss and simply fake her comprehension (p. 112). Subject “LS”, in the same study, indicated that he would let certain people know about his deafness but it was only on a need-to-know basis and even then he was very selective with the recipients (p. 113).

The feeling some late-deafened people have that they need to limit the number of times repetition is requested may relate to prior embarrassing experiences. As Oliva (2004) writes, “Often, the first thing that late deafened people become aware of is that hearing people in general have neither patience for nor knowledge of the unique needs of an individual with a hearing loss” (p. 37). Bob Panara expressed similar concerns about “burdening” his friends with his deafness. “He thought about his deafness and worried about whether his friends would have the patience to try to communicate with him” (Lang, in press). These anecdotes reveal an important consideration for teachers who may need to modify instructional strategies to enhance this communication.

Not only do late-deafened students harbor fears that their peers will not have the patience to communicate with them, they also fear such problems with their teachers. Brooks (1992) shares a story which occurred during a foreign language class where the teacher would call on random students for translations of passages in a book. “She [the

teacher] would call on each person to translate a part in the book and then give you a grade. She called on me one day and I was looking down at the time, so another student tapped me to tell me the teacher was talking to me. When I looked up, she was looking at me very exasperated in a way, and in front of about 34 kids in the classroom she told me she didn't see why I was in that class, I couldn't hear anything, I couldn't understand anything, she didn't really feel that I was going to make it" (p. 62).

There are many factors influencing which mode of communication a late-deafened individual attempts to adopt. Some of these influencing factors include their age of onset, their family values and beliefs, and the support around him/her. Foster and DeCaro (1988) confirmed these varying techniques, "Students use many types of communication, including speech and lipreading, signing using either ASL or signed English, fingerspelling, writing and gesturing" (p. 2). Whether late-deafened individuals continue to use their first auditory language after losing their hearing or not changes from case to case and situation to situation. Clark (1998) pointed out, however, that "students who are late deafened tend to rely on written English as their primary mode of communication" (p. 3).

As the personal accounts demonstrate, it should never be assumed that a late-deafened student is understanding a lecture or conversation even though body language may seem to indicate understanding. "For the deaf postsecondary student, the first step toward effective dialogues and self-directed learning is the identification of communicative and attitudinal barriers that may inhibit his or her own learning" (Lang & Meath-Lang, 1992, p. 81). A teacher making his/her patience known and willingness to make sure the late-deafened learner is following will help build confidence in the student

to communicate when something is not entirely understood. Patience is an important trait that the party who is attempting to communicate with the late-deafened person, or anyone with a communication difference, must manifest. Encouraging a response from the late-deafened individual to assure comprehension would aid in complete understanding as well. Of course, this is a good practice with all deaf students.

### *Technological Issues:*

Technological advancements made in the world are growing exponentially with new discoveries frequently emerging. For the most part, these advances are aimed at making things more luxurious for the majority population or making those who are not in the majority population more “normal.” What exactly the word “normal” means could be debated, but there is no doubt that, in general, this “normalized vision” includes those who can hear. Those who cannot hear, then, are often encouraged to consider new and more effective ways to hear. Along with advances in technology related to improving hearing, there are also vast improvements with resources such as real-time captioning and other forms of technology focusing on the printed word.

### *Cochlear Implant:*

Not only are late-deafened students going through the phase of learning how to process information more visually, they are also confronted with the ever growing questions regarding a cochlear implant. “A cochlear implant [CI] is an implanted electronic hearing device, designed to produce useful hearing sensations to a person with severe to profound nerve deafness by electrically stimulating nerves inside the inner ear”

(U.S. Food and Drug Administration, 2004). With the technological rise, hearing devices are on the rise as well with regards to their effectiveness, the ease of implant, and the encouragement to obtain one.

As pointed out on *Cochlear Implants – Facts* in the year 1993 there was approximately 7,000 people worldwide with some form of implanted “listening device.” The information continues to state that in 1994 there was over 10,000 people worldwide who were hosts of various types of cochlear implants. This shows an astronomical increase of 3,000 patients receiving an implant over the period of one year. The National Institute on Deafness and Other Communication Disorders reported that, in 2007, “nearly 100,000 people worldwide have received implants. In the United States, roughly 22,000 adults and nearly 15,000 children have received them” (The National Institute on Deafness and Other Communication Disorders, 2007). Thus, the number of individuals with implants over the range of 1993 to 2007 increased from 7,000 people to 100,000 people worldwide, which yields an average of 6,600+ new patients annually.

Prior to becoming deaf, late-deafened individuals have spent at least 10 years of their life in a hearing environment developing their speech and listening skills. Because of this, assuming they still have their nerves intact, they are prime candidates for cochlear implants. Consequently, the greater length of time that people have their hearing the larger vocabulary they will develop with accurate pronunciation. Fishbein (2002) and Froude (2003) stated that those deafened after the age of 3 will likely experience highly successful cochlear implant results. They go on to say, however, that “clearly a child deafened at 16 years has very different language skills and knowledge than one deafened at 3 years” (p. 93).

A consensus panel appointed by the National Institutes of Health found similar results when they “acknowledged that there is far more evidence of the value of cochlear implants in children or adults who were deafened after learning language than in those who were deafened before learning language” (Sound from silence: The development of cochlear implants, 2003). This may be true but implants do not necessarily eliminate the need for visual communication such as with signs. The English language is extremely complex and even with my 18 years of hearing I still encounter words on a daily basis that I am unfamiliar with or am not certain of their correct pronunciation.

There have been many circumstances with wonderful results in late-deafened people but advocating such results when there is the possibility that they may not come true can be a very emotional experience. Marschark and Spencer (2003) discussed the results that might arise when implanting cochlear implants into children. Marschark and Spencer (2003) stated that, “there have been concerns that cochlear implantation will have negative effects on children by interfering with development of self-image as deaf persons and damaging self-esteem due to lack of a peer group” (p. 441).

There are many views about the benefits and disadvantages of implanting late-deafened individuals. Some are more supportive of cochlear implants while others are more supportive of sign language or other manual modes of communication (Cued Speech, SEE, Contact Sign, etc.). Someone in favor of a cochlear implant might be so inclined to base statements on the understanding that late-deafened individuals have had a longstanding exposure to the spoken language. Along with this exposure comes a natural comprehension of word order and pronunciation aiding in the effectiveness of assistive hearing devices. “One can go only so far in using linguistic predictability to comprehend

unheard elements; at some point, having sufficient acoustic information is critical” (Ross, 2007).

It should also be pointed out that, even though late-deafened students might be prime candidates for receiving a cochlear implant, such technology does not eliminate the need for visual communication such as through sign language. “Audiologists will emphasize, over and over again, that the cochlear implant, while a truly marvelous technical creation, is not going to replace a normal cochlea. People cannot enter the implant process expecting to exit with normal hearing” (Ross, 2007). Yet, some people are quick to propose solutions through technology and do not see the whole picture. As Miguel Aguayo has written, “My family could not bother to learn the fingerspelling alphabet in the twenty years since I became deaf. Yet they could barely avoid tripping over one another in the race to the telephone to call the cochlear implant clinic to set up an appointment for me” (Woodcock & Aguayo, 2000, p. 69).

#### Real-Time Captioning:

Not all late-deafened students have a desire to learn sign language and, as pointed out above, assistive listening devices do not allow complete access to the entireties of the spoken language. In order to fill this information void then, the uses of other services to meet this need are available. University of Arkansas (1996 – 2001) reported that “those who are late deafened...frequently do not rely on sign language as their primary communication strategy, and tend to rely on residual hearing, speechreading and visual written language, necessitating such accommodations as Computer Assisted Rapid Translation (CART)” (National need and statement of the problem section, para. 2).

“CART is the instant translation of the spoken word into English text using a stenotype machine, notebook computer and realtime software. The text appears on a computer monitor or other display. This technology is primarily used by people who are late-deafened...or have cochlear implants” (Communication Access Information Center, 2004). Other schools use similar real-time captioning systems such as C-Print which is “a real-time speech-to-text transcription system used as a support service with deaf students in mainstream classes” (Elliot, Everhart, Francis, McKee, & Stinson, 2001, p. 285).

Buchkoski (1998) found similar results when he summarized that, along with an increase in the number of late-deafened individuals in the educational field comes a more complex array of accommodations. “The demand for real-time captioning, real-time graphic display, video captioning, assistive listening devices and notetaking services continues to expand. For those students who do not use sign language, these services are equally important to their success, just as an interpreter is to a profoundly deaf person who depends on sign language” (Buchkoski, 1998).

### **Developing Identity:**

Our identity is shaped and molded through thousands of interwoven and intertwined complexities. When one loses their hearing it is as if a knot has been undone and things begin to unravel. “For a late-deafened adult, the journey into the world of deafness is mostly about coming to terms with our new identity and deciding which road we will travel. Whether we learn sign language or lipreading, whether we wear hearing aids, get cochlear implants, use both or neither, whether we work with or socialize among

deaf or hearing individuals, we all ultimately find our new wings. And when we finally realize that we are so much more than just our ears or the labels we are given, our journey becomes, more deeply, one of the human spirit” (Zupp, 2007, p. 11).

Identities are shaped by many factors, including, for example, personal experiences, interpretations of the world around us, ways in which we communicate, and how we look. Self identity may be significantly influenced by the onset of deafness.

“For in the days ahead, following the illness that took my hearing,” wrote Zupp (2006b), “the person I knew myself to be would disappear, and along with the profound discovery of silence, a new identity would emerge” (p. 1). Late-deafened people “experience an identity crisis or a period with an absence of identity — meaning that they cannot see clearly, or at all, who they are now with a loss of hearing, or how they can live, be or relate positively with their hearing peers, family or environment (The Ear of My Heart).

The strength required to adjust to surrounding circumstances varies from one individual to the next. However, in a study conducted by the National Academy on an Aging Society (1999) it was discovered that “people with hearing loss are more likely to report symptoms of depression, dissatisfaction with life, reduced functional health, and withdrawal from social activities” (p. 1). Though this might be true, there are many instances out there of which late-deafened people have dealt with their situations positively and successfully. Brooks (1992) explains her strength when dealing with her situation of late-deafness: “That doesn’t mean that I didn’t have any adjustment problems, because I did. I had to learn how to accept the fact of my deafness. Each experience I had, each frustration I experienced, made me a little more confident, a little more determined” (p. 63).

The notion of having “role models” is not one that should be dismissed lightly. Bob Davila, who lost his hearing at the age of 11 (Lang, Cohen, & Fischgrund, in press), overcame obstacles of poverty, late-deafness, and being a member of a minority group. He continued this upward pursuit and is now the president of Gallaudet University. Bob Panara, who lost his hearing at the age of 10 (Lang, in press), went on to become a well respected and inspirational teacher of the deaf in English and Theatre. Harry Lang, who lost his hearing at the age of 15, published eight books as a university scholar ([http://www.rit.edu/~468www/MSSE/faculty\\_detail.php3?fid=3](http://www.rit.edu/~468www/MSSE/faculty_detail.php3?fid=3)).

My own acceptance of my hearing loss and my current demeanor might be different than it is today had my mother not told me about Gallaudet University. There I was able to meet others who were deaf like me, I was able to be involved in any activity without obstacles, I was able to see successful deaf role models, and I was able to shape my new identity. All of these things and more helped me to accept who I am, be more comfortable with myself, and strengthen my core being.

Subject “LS” in Schalu’s (2004) study had a similar opportunity and expressed his fortune in being able to attend a school where he met others like himself. “I was fortunate to become deaf at a relatively young age. I was able to attend college at Gallaudet, a school for deaf students. I was able to meet peers, become involved in the Deaf culture to some extent, and learn that being deaf does not have to limit a person in any way except for actually hearing sounds and speech” (p. 124). LaRonda Zupp agrees with Subject “LS” when she explained the benefits of attending Gallaudet University. “It was there [Gallaudet University] I affirmed that being unable to hear does not prevent one from fully participating in life!” (Zupp, 2007, p. 9).

While time at Gallaudet University may play an important role in shaping a deaf identity, the resulting experience is not always universal. For example, Dianne Brooks (1992) wrote, “I didn’t do very well personally or socially the first couple of years there [Gallaudet University] because I lacked really good sign language skills and there were so few of us at the college at that time who were not proficient in sign language. There were maybe 10 or 15 of us new persons who were really feeling awkward and out of place. We all found it very difficult to adapt and be accepted into that cultural deaf world. Eventually I left Gallaudet and went to Howard University in Washington, DC” (p. 61). Dianne, however, eventually returned to Gallaudet University as a counselor and currently works at the National Technical Institute for the Deaf (NTID).

Zupp (2006b) pondered over this predicament at the onset of her deafness: “Just who was I and where did I belong, anyway? For some time, I felt as if I didn’t fit in. I was fully accepted by neither hearing nor deaf peers, and I often felt rejected by both” (p. 19). This is just one example of the many questions that late-deafened people ask themselves. In general identity “issues are common among people with hearing loss. They often consider themselves to be hearing people who cannot hear. A few are able to successfully integrate into the culturally Deaf community, but the vast majority see themselves stuck between the hearing world and the Deaf world, and involved in neither” (Hearing Loss Web). Brooks (1992) discusses one of the struggles she had to overcome when accepting who she is. “I didn’t really consider myself deaf” (p. 60). Similarly, “CJ” in Schlau’s (2004) study reported that he “didn’t know how to be identified” and he described himself as “close to the edge at times lacking confidence with a poor self image” (p. 127).

### *Emotional Adjustment:*

Overtime I began to pay more attention to doctor visits, examinations, and do more research of my own regarding my medical condition. I began to become more comfortable using sign language in public and letting others know that I am deaf. I began to talk more openly about my situation and my life story as well. I began to accept what I was going through, what had happened to me, and what I would likely encounter as time goes on. Subject "LS" in Schlau's (2004) study described this process of acceptance when he declared that he denied his hearing loss at first but as time went on, he learned that it is necessary to accept his current reality (p. 77). Subject "FR", however, in Schlau's (2004) study admits that "she just do[es] not accept that [she] is deaf" (p. 119). This range of emotions must be recognized by the classroom teacher in considering how best to provide students support.

Miguel Aguayo recalls his struggles with accepting his deafness and the implications it would have, "I was in so much denial that I continued to audition for singing and guitar playing jobs, and enrolled in college to study music. The constant rejection and failure eventually forced me to confront my hearing loss. Unfortunately, I dropped out of college for many years instead of switching to another field. The only 'lasting' asset of my denial stage is a willingness to charge in and embarrass myself. Nothing could be that bad! Even so, I am sensitive to rejection" (Woodcock & Aguayo, 2000, p. 50).

Coming to terms with reality happens on an individual basis. As Schalu (2004) demonstrated, Subject "LS" admitted that sometimes deafness is an aggravation for him but he still accepts it and deals with it accordingly (p. 120). As for me, when I was first

becoming deaf I did not want to give up my stereo. My mom had actually offered to buy it off me one time and I would not sell it to her. Even though I could no longer hear the music I used to play, I was not ready to give it up just then. Becoming deaf at the age of 18 put me in a very awkward situation for up until that point all I knew was the hearing world. Losing my hearing, however, made comfort in this world difficult. When I began to meet more deaf people, however, I felt at a distance from them as well. Their actions were different than what I was used to, their mode of communication was different than what I was used to, their tendencies were different than what I was used to and they were, basically, different people. Thus, I did not exactly feel as though I was a part of their world. I wondered where I fit in. Many times I felt as though there was an island populated with all of the hearing people and an island populated with all of the deaf people. My place was on a bridge between these islands and I was neither fully a member of one nor the other. I was mentally hearing yet I could not hear. I was deaf but I struggled connecting with others who are deaf. Miguel Aguayo can relate completely to this feeling. He used to feel as though he was “a hearing person trapped in the body of a deaf man” (Woodcock & Aguayo, 2000, p. 53). Brooks (1992) shares a similar experience about when she attempted to return to the same friends, the same teachers, and the same school after losing her hearing. “Those people who I knew who had socialized with me, interacted with me, all of a sudden started to slight me and I never was able to understand what was wrong, as if I had something contagious. I became the butt of a lot of jokes and teasing and other things, and most of all the teachers lost patience with me because they were very insensitive, they liked to have the class moving at their own pace. I became a little bit of a thorn in their sides” (p. 62).

The attitudes of society in general may also influence emotional adjustment. “It is well known that many individuals in the hearing world still view people who cannot hear as ‘disabled’ or ‘broken.’ In fact, the deafened person may have held that very same view of other deaf or deafened people before losing their own hearing. They may carry a deep sense of confusion, shame or guilt about who they are because their new sense of self as a person who can no longer hear doesn’t seem to gel with what they previously perceived deaf or deafened people to be” (The Ear of My Heart).

“LS” in Schlau’s (2004) study summarized the acceptance of deafness by a late-deafened person as follows: “the process doesn’t happen in any order and never really ends, just slows down at times” (p. 93).

Bob Davila required time to conquer this dilemma as well when he pointed out that he “was embarrassed when others would resort to gestures to communicate with him” (Lang, Cohen, & Fischgrund, in press). Yet, he ended up tri-lingual, learning ASL and English in addition to his first language, Spanish.

There will be frustrations along the way toward emotional adjustment for late-deafened people but it is up to us to continue to fight and overcome these battles. Zupp (2006a) exemplifies: “I felt barred from the easy, familiar (hearing) route and thrust down this strange, unexplored, silent lane without a voice in the matter. Still, perhaps I did have a choice about *how* I traveled this path. I could journey with courage or with fear” (p. 18).

Though the struggle with emotional adjustment to late-deafness is evident, Dr. Ross (1996) points out that, “Without self-acceptance, a successful adjustment to a hearing loss is impossible” (Ross, 1996).

### *Family Support:*

Though it seems evident that positive support from one's family is a stepping stone in adjusting to deafness, the responses from family members are often mixed. No two situations are alike and no two families are alike. "Family members too often get caught up in their own worries and needs and haven't the patience or empathy to communicate with each other. They criticize, command, or lash out rather than love and cherish. Learning communication skills is vital if you are going to nurture those you love the most" (Maisel, 2007).

I was lucky enough to have a loving and supporting family who had patience with my best and my worst over the years. Oftentimes I treated them unfairly, family and friends alike, but they were there for me nonetheless. Understanding what I was going through was no easy task for them but their support and encouragement is what helped me get through the most difficult times. As I think back about the hardships that I caused while going through this phase, I am bothered by it greatly and wish I handled certain things in a different manner. Yet, I am grateful beyond words for the support that I received in the face of how I treated people.

Robert Davila (Lang, Cohen, & Fischgrund, in press) has supported this perspective of the importance of family support. "The decision to send me to the California School for the Deaf was painful to my mother. She told me so. Since CSD was a 'residential' school, I would have to live there 10 months out of the year. She said it was for my own good and not because she did not love me. She asked me to be good and to respect my teachers. That was it...This send-off admonition became a permanent memory and I was always mindful of her parting words" (in press). It was, in fact, for his

own good as Bob would later realize when he began to adapt to his surroundings and, “in effect, adapted rapidly to a trilingual (Spanish/English/ASL) world while making life-long friends at the school” (Lang, Cohen, & Fischgrund, in press).

However, not all late-deafened students receive family support that they need. Some families avoid using sign language. Often, the late-deafened student is excluded from conversations. Some families even ignore the onset of deafness all together. “Many...late deafened...people report significant issues with members of their family” (Hearing Loss Web). This attitude could result in permanently damaging effects, as Subject “FR” in Schlau’s (2004) proclaimed when she said that her parents ignored her hearing loss and would not even allow socialization with other deaf people and, consequently, refused to provide her with interpreters. These actions by her parents, she believes, directly influenced her low self-esteem (p. 79).

Though a supportive family does not necessarily guarantee success, the support from your loved ones is priceless. As Brooks (1992) has summarized, “I think my persistence in the academic environment was because I knew, regardless of what happened to me during the day, that I had family support. I had a sense of value of the education and I wanted my family to be proud of me” (p. 63). Foster (1989) discovered similar results in her student when she found that several of her subjects “credited their academic achievement to the interest and involvement of a parent” (p. 43).

### **Summary:**

Adolescence is a time when we confront many challenges in determining our identity, growing as an individual person, and maturing. The late-deafened adolescent

may have already begun to experience adjustments in the hearing world before deafness; and is therefore confronted with additional challenges after the hearing loss occurs. The comfort that they once knew in regards to their identity with their hearing peers and the hearing world is lost or confounded by suddenly being thrust into the world of deafness where many new challenges await them.

The adjustment to learning primarily through the sense of vision occurs more naturally for some late-deafened students than others. With advances in technology, the available resources to support effective learning in the classroom continue to grow and provide late-deafened people with many options. But, as this paper has shown, adjustment to classroom learning strategies is occurring for these students simultaneously with learning to sign and/or speechread, developing a new identity, and struggling with family support issues. The challenges are formidable indeed for a teenager.

Importantly, teachers need to understand that there is no “one size fits all” when working with late-deafened students. Lang & Meath-Lang (1992) touch on the misconceptions and attitudes of those that deaf learners come into contact with. “The first [attitudinal barrier] is the tendency to generalize that all deaf learners are alike” (p. 81). This is certainly not true for the late-deafened student, and this paper provides a first step in bringing better awareness to educators in all environments.

## Tipsheet for Educating Late-deafened Adolescents

1. Demonstrate patience and understanding. Late-deafened students can be sensitive and concerned that they will be a burden to you or the class. Make it clear that they are welcome in the classroom and their needs will be met as much as possible.
2. Be sensitive to their adjustment process. As with any student, watch to see if personal counseling may be warranted.
3. Attempt a variety of methods to promote academic success. The late-deafened student might not be immediately aware of what will work, resulting in a trial and error method for you both. Have dialogue with the student along the way in order to identify which instructional strategies are most effective.
4. Do not force once communication method (oral or sign) on the late-deafened student but rather share information about various choices to enhance learning in the classroom.
5. If you are a mainstream teacher, familiarize yourself with text-based equipment such as C-Print or CART and the improvements that have been made with this technology, which allows student input into the notes possible during the lecture as well as drawing illustrations.
6. In general, consider increasing the use of media that emphasizes printed summaries of important information being discussed (PowerPoint slides, Overheads, Smartboards, etc). These approaches will help all deaf students, but the late-deafened student who has not yet acquired speechreading and sign skills as well as the other students may benefit especially.
7. Try to learn more about the student's family and their support of the child. If the child's family does not acknowledge the hearing loss the child is likely to have a low self-esteem. This may require additional communication with the family and/or additional support in the classroom in terms of self-esteem building.
8. Introduce late-deafened students to past and present people who were/are late-deafened as well. Relating to role models in a similar situation will help shape their new identity.
9. Develop activities where all students can participate. The activities should include having all students be able to share their equally-valued personal experiences as deaf/deafened individuals.
10. Be aware of other students' reactions and acceptance of the late-deafened student. Be sure to intervene when others are not being sensitive.

11. Initiate conversations with the late-deafened student during “out-of-class” time.  
Building confidence in conversations will require increased exposure.

## References

- ALDA-Los Angeles: Chapter By-Laws. (2004). Retrieved May 10, 2007, from <http://www.deafvision.net/aldala/aldabylaws.html>.
- Buchkoski, D. (1998). MCPO training and technical assistance [Electronic version]. In D. W. Hsu (Ed.). *MCPO connection*, 1(2), 5.
- Brooks, D. (1992). Personal commentary: Dianne Brooks. In S. B. Foster & G. C. Walter (Eds.), *Deaf students in postsecondary education* (pp. 60–64). New York, NY: Routledge.
- Clark, M. (1998). Working with students who are late-deafened. NETAC Teacher Tipsheet.
- Cochlear Implants – Facts. Retrieved on May 1, 2007, from <http://www.zak.co.il/deaf-info/old/ci-facts.html>.
- Communication Access Information Center. (2004). Retrieved on May 12, 2007, from <http://www.cartinfo.org>.
- Elliot, L. B., Everhart, V. S., Francis, P. J., McKee, B. G., & Stinson, M. S. (2001). College students' perceptions of the c-print speech-to-text transcription system. *Journal of Deaf Studies and Deaf Education*, 6(4), 285–298.
- Fishbein, H. D. (2002). *Peer prejudice and discrimination: The origins of prejudice*. Mahwah, NJ, USA: Lawrence Erlbaum Associates, Incorporated.
- Foster, S. & DeCaro, P. M. (1988). *Life in a mainstream residence hall: A case study of successes, problems and potential*. Rochester Institute of Technology.
- Foster, S. (1989). Reflections of a group of deaf adults on their experiences in mainstream and residential school programs in the United States. *Disability, Handicap & Society*, 4(1), 37–56.
- Froude, J. (2003). *Parents' and teachers' guides, 6: Making sense in sign: A lifeline for a deaf child*. Clevedon, GBR: Multilingual Matters Limited.
- Gallaudet Research Institute. (2004 – 2005). *Regional and national summary*. Retrieved May 10, 2007, from [http://gri.gallaudet.edu/Demographics/2005\\_National\\_Summary.pdf](http://gri.gallaudet.edu/Demographics/2005_National_Summary.pdf).
- Hearing Loss Web. Retrieved May 10, 2007, from <http://www.hearinglossweb.com/Issues/issues.htm>.
- Israel, P. (1998). *Edison: A life of invention*. New York, NY: John Wiley & Sons, Inc.

- Josephson, M. (1959). *Edison*. New York, NY: McGraw-Hill Book Company, Inc.
- Kinderman, W. (1995). *Beethoven*. Berkeley, CA: University Of California Press.
- Lang, H. G. (in press). Teaching from the heart and soul: The life and work of Robert F. Panara. Washington, DC: Gallaudet University Press.
- Lang, H.G., Cohen, O., & Fischgrund, J. (in press). Moments of truth: The journey of Robert R. Davila, deaf educator. Rochester, NY: RIT Cary Graphics Art Press.
- Lang, H. G., & Meath-Lang, B. (1992). The deaf learner. In S. B. Foster & G. C. Walter (Eds.), *Deaf students in postsecondary education* (pp. 67–89). New York, NY: Routledge.
- Lucas, C. (Ed.). (2001). *Sociolinguistics of sign languages*. Port Chester, NY, USA: Cambridge University Press.
- Lopatin, E..(2006). A tale of lose hearing. *ALDA News*, 21(2), 4 & 13–14.
- Maisel, E. (2007). How to talk with your family. *Hearing Loss Web*. Retrieved May 11, 2007, from <http://www.hearinglossweb.com/Issues/Family/comms.htm>.
- Marschark, M., & Spencer, P. E. (Eds.). (2003). *Oxford handbook of deaf studies, language, and education*. Cary, NC, USA: Oxford University Press, Incorporated.
- National Academy on an Aging Society. (1999). *Hearing loss: A growing problem that affects quality of life*.
- National Center for Health Statistics. (1994). National Health Survey, Series 10, No. 188.
- National Institute on Deafness and Other Communication Disorders. (2007). Retrieved on May 1, 2007, from <http://www.nidcd.nih.gov/health/hearing/coch.asp>.
- Oliva, G. (2004). *Alone in the mainstream: A deaf woman remembers public school*. Washington, DC, USA: Gallaudet University Press.
- Ross, M. (1996). Coping with a hearing loss. *Rehabilitation Engineering Research Center on Hearing Enhancement*. Retrieved May 11, 2007, from [http://www.hearingresearch.org/Dr.Ross/coping\\_with\\_a\\_hearing\\_loss.htm](http://www.hearingresearch.org/Dr.Ross/coping_with_a_hearing_loss.htm).
- Ross, M. (2007). Reflections on my cochlear implant: Part one. In *Rehabilitation Engineering Research Center on Hearing Enhancement*. Retrieved May 11, 2007, from <http://www.hearingresearch.org/Dr.Ross/CI-one.htm>.
- Schlau, J. (2004). *I did not die, I just can't hear: A grounded theory study of*

- acquired deafness*. Ann Arbor, Michigan: UMI Dissertation Services.
- Solomon, M. (1998). *Beethoven* (2<sup>nd</sup> ed.). New York, NY: Schirmer Books.
- Sound from silence: The development of cochlear implants. (2003). Retrieved on May 10, 2007, from <http://www.beyonddiscovery.org/content/view.page.php?I=261>.
- Statistics about Hearing Disorders, Ear Infections, and Deafness. (2006). Retrieved on November 15, 2006, from <http://www.nidcd.nih.gov/health/statistics/hearing.asp>.
- Stewart, D. A. (2003). *Literacy and your deaf child: What every parent of deaf children should know*. Washington, DC, USA: Gallaudet University Press.
- The Ear of My Heart. Retrieved May 10, 2007, from <http://www.earofmyheart.com/wordpress/?p=125>.
- University of Arkansas. (1996 – 2001). *Advocating for communication access using technological accommodations to enhance rehabilitation service delivery to persons who are deaf or hard of hearing (r-5)*. Retrieved May 10, 2007, from University of Arkansas, Rehabilitation Research and Training Center for Persons who are Deaf or Hard of Hearing (RT – 31) Web site: <http://www.uark.edu/depts/rehabres/r5.html>.
- U.S. Census Bureau. (2006). Population finder: The 2006 population estimate for the United States. Retrieved on May 17, 2007, from [http://factfinder.census.gov/servlet/SAFFPopulation?\\_submenuId=population\\_0&\\_sse=on](http://factfinder.census.gov/servlet/SAFFPopulation?_submenuId=population_0&_sse=on).
- U.S. Food and Drug Administration. (2004). *Cochlear implants: What is a cochlear implant?* Retrieved May 10, 2007, from <http://www.fda.gov/cdrh/cochlear/WhatAre.html>.
- Van Naarden, K., Decoufle, P., & Caldwell, K. (1999). Prevalence and characteristics of children with serious hearing impairment in metropolitan Atlanta, 1991-1993. *Pediatrics*, 103, 570.
- Webster, D. & Associate. (Eds.). (2003). Early hearing detection and intervention program guide manual. *Department of health and human services*.
- Wepman, D. (1987). *Helen Keller*. New York, NY: Chelsea House Publishers.
- Woodcock, K. L., & Aguayo, M. (2000). *Deafened people: Adjustment and support*. Toronto: University of Toronto Press.
- Wikipedia: Communication, Retrieved May 10, 2007, from <http://en.wikipedia.org/wiki/Communication>.

Wikipedia: Visual learning, Retrieved May 10, 2007, from [http://en.wikipedia.org/wiki/Visual\\_learning](http://en.wikipedia.org/wiki/Visual_learning).

Zupp, L. (2006a). Losing my hearing, finding my way: Rising from the ashes, finding new wings. *ALDA News*, 21(2), 1 & 18–19.

Zupp, L. (2006b). Losing my hearing, finding my way: My call to adventure! *ALDA News*, 22(3), 8 & 18–19.

Zupp, L. (2007). Losing my hearing, finding my way: Embracing my deafness. *ALDA News*, 23(1), 9–11.

## Appendix A

1. Allow time for student to introduce himself and discuss possible needs. Ask the student if he or she would like to make a small presentation to the class to educate others on the needs of late-deafened individuals and to let everyone know how they may be able to assist the student or meet the student before or after class to become familiar with possible barriers the student might face.
2. Learn basics of CART (Computer-Aided Realtime Translation) and other communication options. Students who are late-deafened tend to rely on written English as their primary mode of communication. CART can provide the student with instant information and the disk can be saved to help the student review the material at a later time. The student may not know about this service or other options that may help in the same manner.
3. Learn the basics of using interpreters and those interpreting methods that may be used by the late-deafened student (Sign Language Transliteration, Oral Transliteration, American Sign Language [ASL], and Cued Speech Transliteration). Students who are deaf and hard of hearing use varied modes of communication, depending on the age of onset of hearing loss and cultural background. Some late-deafened students know ASL or use signed English as their preferred mode of communication. Talk with the interpreter before or after class to learn more about interpreting and issues related to the type of communication being used.
4. Learn basics of the Americans with Disabilities Act and the Rehabilitation Act, Section 504. These are laws that affect students with hearing loss in schools.
5. Ask a student to help with notetaking as the text file of CART is not always useful. Because some lectures can be lengthy, it may be helpful to have another student summarize items and take notes, instead of having to read what may be very lengthy pages of text from the CART transcripts later on.
6. Be aware of environmental issues, such as not standing in front of a window and facing the student. Standing in front of a light source makes it difficult to speechread, pick up visual cues, etc. Be aware of the student and try to face him/her when speaking, without distractions near the face or mouth.
7. Repeat questions and answers if at all possible.
8. Remember that English is the primary language of the student who is late-deafened. Use written English whenever possible.
9. Regulate cross-talk. Ask students to raise their hands so that the student who is late-deafened is always aware of who is speaking.

10. Identify speakers so that the student knows who is speaking and the CART person can also type in that information.
11. Provide access for out-of-classroom activities such as internships, group meetings, etc. If a student who is late-deafened needs to meet with a group, make sure he/she will have some way of knowing what the meeting is about...either through captioning, an interpreter, or other creative options.
12. Look directly at the student who is late-deafened when speaking. Try not to speak while writing on the blackboard or with your head down or your back facing the students.
13. Enunciate clearly and try to speak at a normal pace. Lipreading is more difficult when words are greatly exaggerated or mumbled.
14. Provide visual aids whenever possible. Overheads or notes on the board are very helpful to the student who is late-deafened.
15. If possible, allow time after class for the student to ask questions privately. Let the student know that is an option. Sometimes it is easier to ask questions privately, especially if they are not sure of some things and do not want to take up class time in case it is something they have missed.
16. Take advantage of the disability services coordinator of the postsecondary program or other resources, such as the Association of Late-Deafened Adults, Inc. (ALDA).

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