Listening to students with mild and moderate hearing loss: Learning and social-emotional needs in educational contexts

by

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A thesis submitted to the Faculty of Education
In conformity with the requirements for
the degree of Master of Education

Queen’s University
Kingston, Ontario, Canada
(August, 2010)

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Abstract

Educational research on students with mild and moderate hearing loss (MMHL), who represent up to 15% of the student population in regular classrooms, provides neither consistent nor meaningful attention to their learning and social-emotional experiences in school contexts. The purpose of this research is to investigate the perspectives of students with MMHL to gain insight into how they, as learners, conceptualize and manage their hearing loss at school and to develop recommendations for researchers and educators. Reviewed literature includes both quantitative and qualitative research which relies heavily on teachers’ and parents’ perspectives and achievement scores over student perspectives. Literature also indicates that there are discrepancies in student reporting depending on methods of data collection. Three students with MMHL were asked directly during in-depth interviews to describe their experiences in educational contexts. Self Determination Theory (SDT) (Deci & Ryan, 1985) provides an analytical and organizing framework for social-emotional elements of these learners’ experiences based on three psychological needs: relatedness, competence, and autonomy. In addition to SDT, a discussion of disability identity development research (e.g., Gill, 1997) provides a supplementary conceptual tool to expand the latent meanings of these experiences and socially constructed elements that students with hearing loss negotiate. Findings provide descriptive accounts of participants’ lived experiences with MMHL in educational contexts. Emergent patterns and themes identify broadly defined yet coherent messages highlighting the importance that educators (a) understand the lived experience of students
with MMHL, (b) recognize the inherent contradictions that can accompany this
disability, and (c) attend to needs, to communication, learning, and social-emotional
needs. Each case indicates that student needs are met inconsistently resulting in adverse
consequences for self-determined learning and social-emotional well-being. It is
recommended that classroom teachers proactively facilitate potential learning outcomes
for students with MMHL by attending to not only academic and communication needs,
but to social-emotional needs as well. Researchers in education must further investigate
the population of students with MMHL to assess their strengths and to ascertain the type
of supports and interventions from which they could benefit.
Acknowledgements

In the vocation of completing this research I have benefitted tremendously from the strength and support of a number of incredibly wise women and of a few really good men.

Wise Women

I extend my deep appreciation to my Grade 2 teacher, Sandra McQueen, the first to recognize the subtle signs of my hearing loss. Although a big effort for us both, it was under her care that I learned to read.

I am in awe of the intelligence, energy, and unfailing enthusiasm of my academic supervisor, Dr. Nancy Hutchinson. Thank you, Nancy for your belief in me and for saying how proud you are of my work. Because you live what you teach with a passionate heart and exquisite skill, you have unfailingly met this student’s need for sense of relatedness, competence, and autonomy. Please know that I learn from you in every shared moment and that there are no words to express my gratitude for your thoughtful mentorship.

I have nothing but admiration for the spirited inspiration of my thesis committee member, Dr. Rena Upitis. Thank you, Rena for showing by example that excellence in academics can co-exist with creative building whether this includes carpentry, woodworking, the arts, or big dreams. From our first class onward you have taught me that there can be excitement in building goals, especially when you have the right tools.
During the most trying moments over past years Dr. Helma Seidl brilliantly convinced me to have faith in a badly bruised optimism. You have been the editor in the re-construction of what has become an unbelievable life story. Thank you for your friendship, intelligent guidance, and determined nurturing as I continually move forward.

I absolutely would not be closing this of many positive chapters without the calming and steady force of Katherine Hum-Antonopoulos. Your wisdom, pragmatism, and pursuit of joy have been my guide on this and every other journey I undertake. You are my life mentor and friend and I am devoted to your quiet and protective presence.

On every step of this academic adventure I have had an unfailing champion in Marcea Ingersoll. Dear Marcea, your loyalty and devotion to my work and my life’s passions have been unwavering. Steadily you have taught me and you are adored.

To my mother Darlene, who has endowed me with spontaneity and perseverance, I am devoted; with love, I thank you.

A Few Good Men

For their gentle presence and strength of friendship I am indebted to Steve Antonopoulos who lets me share his rock and to Garth Haugrud whose positive example inspires. For their delightful enthusiasm my appreciation goes to Ray Scott and Dr. Hugh Munby. To both my brother Mark, whom I admire and to my father, James, who instilled in me his brilliant wit and humour, you have my love.

To those listed above and to my dear friends in Ottawa, Kingston, and Westport, I endeavor in all things to make you proud.

CJ Dalton
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Chapter 1

Introduction

My professional experience as a counsellor working with hard of hearing individuals and my lived experience as an integrated student with pre-lingual, moderately severe hearing loss inspire my research on the experiences of youth with hearing loss in educational settings. Over a ten-year period I worked as an educational outreach counsellor at a large Canadian agency offering direct professional services to Deaf, deafened, and hard of hearing individuals. In this role I was involved in the case management of clients with hearing loss and late deafness, and I dealt with the frustration and isolation that follow communication breakdowns, as well as with self-concept and identity issues related to disability. I counselled clients, family members, care-givers, and health care professionals on communication strategies, independence, and advocacy. I also facilitated support groups for individuals with conditions related to hearing loss and hearing diseases. Primarily my work focused on the practical and social-emotional facets of hearing loss.

Becoming a certified elementary teacher provided an opportunity for me to spend time in schools with integrated children and youth with varying degrees of hearing loss. During this time I became aware of a number of students with mild and moderate degrees of hearing loss (MMHL). Their teachers usually provided preferential seating and used assistive devices in their classrooms, sometimes sporadically, but otherwise these
students with MMHL were taught as though they had no hearing loss. These students were not profoundly hard of hearing or deaf, and therefore did not use the services of an in-class sign language interpreter, nor did they have the benefit of intensive or attentive itinerant or special education support.

As I struggled to manage the noise and communication challenges of the classroom environment with my own moderate to severe hearing loss, I often wondered how these integrated students with MMHL were coping. Upon further investigation I uncovered pervasive misassumptions about the communication and learning needs of students with MMHL. Often educators, and even family members, were either misinformed about or unaware of the challenges that these students face at school, both academically and social-emotionally. I soon grew curious to learn more about the learning and social-emotional experiences of students with MMHL.

When I began my investigation, I was struck by the large numbers of adults invested in the lives and well-being of these hard of hearing students. Not only were parents and teachers involved but also administrators, itinerant and resource education specialists, members of Ministries of Education, Health, and Training, College and Universities, and those offering professional post-secondary disabilities services. Outside of the educational setting there were audiologists, speech language pathologists, physicians, counsellors and psychologists. There were also consumer and professional agency service providers, support groups for parents, special interest organization members, or individuals supporting employment and career aspirations of the these
youth. With input from all these stakeholders, why were the experiences of students with MMHL in regular classrooms still misunderstood? I began to consider how educators might better support the learning and social-emotional challenges of these students, given the 13 or more years that they spend in integrated classrooms.

Up to 15% of the student population has MMHL (Niskar, Kieszak, Holmes, Esteban, Rubin & Brody, 2001). The lived experience of these students includes a communication disability that impacts speech and language development, academic performance, and social-emotional quality of life (Tharpe, 2008; Yoshinaga-Itano, DeConde Johnson, Carpenter, & Stredler Brown, 2008). At a time when the population of learners with more severe hearing loss is decreasing in prevalence due to earlier detection, intervention methods, and improved technical devices (Moores, 2006; Punch & Hyde, 2005), it is essential that educational research examine the needs of this substantial population of learners with MMHL in regular classrooms. Educational research and classroom educators owe it to these students to be as thoroughly informed about the factors that impact their learning and social-emotional experiences as they are about students with other exceptionalities.

**Rationale for Research on Students with MMHL**

Educational research on children and youth with hearing loss provides neither consistent nor meaningful attention to the social-emotional experiences of those with less severe hearing loss in integrated classrooms compared to those with greater degrees of hearing loss (Yoshinaga-Itano et al., 2008). When searching for applicable literature on
hearing loss we are frequently directed to “see deaf” in indexes, and we discover a
tendency by researchers to group together all hard of hearing learners, along the spectrum
from mild to profound, and even Deaf. Educational and psychological databases and
major handbook chapters on special education, psychology of learners, and exceptional
learners also primarily speak in-depth to the experiences of severe or profound, deaf, and
Culturally Deaf students, while offering very little on students with MMHL; social-
emotional elements or environmental contexts (e.g. lesson delivery, classroom noise, and
interventions) are also rarely addressed (Ainscow, 2007; Brinton & Fujiki, 2002;
Reynolds & Fletcher-Janzen, 2007). Much of the expertise on students with more severe
hearing loss and deafness can inform classroom teachers of integrated students with
MMHL. However, these teachers may not consider seeking out a body of knowledge
aimed at deaf students or apply it in their regular classrooms to students with less severe
hearing loss (Johnson, Stein, Broadway, & Markwalter, 1997).

Both academic performance and social-emotional development (e.g., self-identity
work, psychological needs fulfillment) can be compromised by MMHL (Marschark &
Albertini, 2004). It is also possible that students with different degrees or types of hearing
loss have similar learning and social-emotional experiences in regular classrooms.
However, the mostly intelligible speech of these students “might mislead teachers and
administrators to overlook the difficulties they experience with classroom participation
[and]…little attention may be given to mitigating the effect of their hearing loss in the
classroom” (Antia, Jones, Reed, & Kreimeyer, 2009, p. 308). Currently a comprehensive
understanding of the social-emotional development of students with MMHL is lacking (Moeller, 2007) and many educators are not cognizant of the fact that hearing loss, regardless of severity, can have a negative impact on learning and social-emotional outcomes.

**Purpose**

Research that adequately informs educational researchers and regular classroom teachers about the learning and social-emotional experiences of students with MMHL is lacking and professionals have not taken much notice of the substantial numbers of these students in regular classrooms. The purpose of this research is to investigate the MMHL experience from the perspectives of adolescents and young adults to gain insight into how they, as learners, conceptualize and manage their hearing loss at school and to develop recommendations for researchers and educators. What are the educational and social experiences of children and youth with MMHL? What do students with MMHL feel they need from their teachers to be more socially-emotionally secure and more competent in their learning? What do students feel are teachers’ assumptions about, and attitudes toward, students with MMHL?

**Definition of Terms**

Children with hearing impairment often experience delayed development of speech, language, and cognitive skills, which may result in slow learning and difficulty progressing in school. Both children and adults may suffer from social
stigmatization and isolation as a result of hearing impairment. (World Health Organization, 2009b, p. 1)

Hearing loss is experienced along a continuum measured by pure tone air-conduction thresholds and decibel (dB) loss. Milder degrees of hearing loss are found at one end of the spectrum, and severe and profound hearing loss, or deafness, are at the other end. Mild to moderate loss can be defined as ranging from 15-30 dB to 30-70 dB, depending on hearing loss types, research sources, or regulatory bodies (National Workshop on Mild and Unilateral Hearing Loss, 2005; World Health Organization, 2009a; Yoshinaga-Itano et al., 2008). Individuals with more severe hearing loss are often referred to as deaf although an individual may prefer the term hard of hearing, especially if he or she uses aural speech for communication. Individuals who culturally and linguistically identify as part of Deaf Culture use the capitalized term, Deaf. It is possible that students diagnosed with severe and profound hearing loss or deafness who are also cochlear implant (CI) recipients may have a functional status similar to students with MMHL when using these devices (Blamey et al., 2001; Francis & Niparko, 2003). The term hard of hearing (HH) is used to describe individuals with hearing loss along the entire spectrum “who generally have residual hearing sufficient to enable successful processing of linguistic information through audition” (Fischgrund, 1995, p. 231).

For the purposes of this study, the term MMHL encompasses a broad range of students who, compared to students with more significant hearing loss or deafness, are not traditionally recipients of intensive educational interventions or support. This
definition may include those diagnosed with congenital or acquired bilateral mild, moderate or unilateral hearing loss specifically, sensorineural, conductive or mixed hearing loss, and those whose hearing is compromised during critical periods of academic and social development at school (e.g., progressive, fluctuating or temporary hearing loss).

The term identity refers to one’s sense of self and to how one is labelled in a social context (Gill, 1997). As a psychological term, identity implies an awareness of the self, self-image or mental model described as self-esteem or self-concept (Markus & Wurf, 1987). The term social-emotional is used to encompass a range of complex factors contributing to mental health or psycho-social status related to social interaction and intrinsic well-being (Roeser, Eccles & Sameroff, 2000).

Theoretical Framework

Research on children and youth with MMHL is usually audiologically driven and often assessing students’ ability to hear in a clinical setting compared to either typically hearing or profoundly HH peers (Yoshinaga-Itano et al., 2008). A review of applicable educational literature on social-emotional indicators suggests that students with hearing loss have an intense desire to “fit in” with their peers and to feel more confident in managing social interactions and communication breakdown (Davis, Elfenbein, Schum, & Bentler, 1986; Kent, 2006; Punch & Hyde, 2005). It appears that these students also have a desire to accomplish tasks independently and they rarely ask for assistance in classrooms, even when it is needed (Warick, 1994). With these considerations and
knowledge gained from my professional and personal background, it was determined that an organizing framework was necessary to assess not only academic indicators of students with MMHL but also to encompass a broad range of social-emotional elements that affect their learning.

Self-determination Theory (SDT) (Deci & Ryan, 1985) provides an analytical framework that organizes social-emotional elements of learners’ experiences while effectively making predictions about motivation, development, peer alienation, and student performance based on the fulfillment of three psychological needs: relatedness, competence, and autonomy. Each of these three needs is critical to consider when examining the experiences, social participation, learning, and academic performance of students with MMHL. These psychological needs also provide a structure for organizing the review of literature and student data on the social-emotional and teaching issues related to hearing loss, disability identity, and academic performance. SDT serves as a lens to interpret how students with MMHL manage these needs in an educational context, and addresses educators’ roles in providing support for these needs.

Ryan and Deci (2000) reviewed a substantial and much replicated body of literature examining research on group identification or belongingness, sense of competence, and autonomy in learning environments. It is apparent that links can be made between SDT and the social-emotional experiences of students with hearing loss. In a review of literature addressing students’ sense of belonging or relatedness in school settings, Osterman (2000) used SDT to examine research on peer relationships, student
attitudes, need for affiliation, teacher support, and student self-esteem. In each of these areas, the experiences of HH students may inhibit psychological needs satisfaction and learning, regardless of the severity of their hearing loss.

An awareness of literature addressing the socially constructed meanings attached to the terms impairment and disability also enhances our understanding of the obstacles faced by HH students during development of their self-identity and throughout their efforts to satisfy their psychological needs. Therefore, in addition to SDT, a discussion of disability identity development (Cameron, 2007; Gill, 1997; Kinavey, 2006) provides a supplementary conceptual tool to help expand the latent meanings of HH students’ experiences. Further, a more detailed examination of disability identity concepts adds a broader perspective on and deeper analysis of the social-emotional factors that students with hearing loss negotiate. Students with minimal hearing loss may have greater than expected challenges for needs satisfaction because of the invisibility of their disability and apparent lack of supports or interventions due to their proximity to typically hearing children.

Summary

Six chapters make up the whole of this thesis. Chapter 1 includes the rationale and purpose for conducting this research. Chapter 2 provides a review of literature on students with varying degrees of hearing loss that informs our understanding of the issues faced by students with MMHL. This chapter is organized by a theoretical framework that encompasses the three psychological needs found in SDT and includes research
highlighting considerations related to disability identity. Chapter 3 outlines the qualitative methodology of this study and delineates the specific methods used to initiate and conduct both data collection and data analysis. This chapter also gives a brief description of the student participants who provided their insights and advice. The fourth chapter introduces the cases of Angelina, Nicholai, and Brooke and highlights their lived experiences. The fourth chapter also describes how they manage their MMHL at school. Emergent patterns and themes are presented in Chapter 5 and reflect the issues that are meaningful to the participants. This chapter also provides a summary of participants’ messages of which they believe classroom teachers should be cognizant. The final chapter includes interpretation and discussion of the findings with recommendations for classroom teachers and implications for educational researchers.
Chapter 2

Literature Review

An understanding of the learning and social-emotional experiences of students with MMHL can be enhanced through a theoretically informed review of research on learners with various degrees of hearing loss. The purpose of this interpretive literature review is two-fold: (a) to provide insight into the social-emotional experiences of students with MMHL at school and (b) to examine these experiences through the lenses of Self-determination Theory (SDT) (Deci & Ryan, 1985) and of disability identity development research (e.g., Gill, 1997). Educational research on students with MMHL and their social-emotional outcomes at school was initially targeted for this review. Given the paucity of research meeting these criteria, literature on social-emotional outcomes of students with more severe hearing loss and deafness and on disability identity was also included. An additional goal of this chapter is to synthesize a broad body of literature on students with hearing loss that often appears theoretically disorganized and lacking in collective impact on classroom teachers.

Literature addressing social-emotional factors in students with various degrees of hearing loss has been identified for this review from educational and psychological databases. First a brief review of the challenges related to ascertaining prevalence of MMHL is discussed. Then an overview of Self Determination Theory (SDT) is provided to delineate three innate psychological needs (i.e., a sense of relatedness, competence,
and autonomy) and motivation regulation styles. Literature on students with hearing loss is then organized by these three psychological needs to emphasize how classroom contexts can be utilized to enhance self-determined learning of students with MMHL. Some key studies pertain to more than one of the three psychological needs and are discussed in more than one section. In the review it becomes clear that regardless of severity of hearing loss, students’ psychological needs as defined by SDT are often adversely affected at school. Students with MMHL, in particular, may face greater challenges for satisfying these basic psychological needs than their typically hearing or more severely HH peers. Reasons for this include the invisibility and variability of their disability, their desire to be seen as typically hearing students rather than identifying with those with more severe hearing loss, and the apparent lack of educational supports and interventions provided in regular classrooms.

**Prevalence**

Although prevalence of students with MMHL is widely debated due to varying definitions of hearing levels and hearing loss type, to age of onset and of diagnosis, and to availability of universal screening, between 10 and 15% of the student population likely has MMHL (Bess, Dodd-Murphy & Parker, 1998; Niskar et al., 2001; Wake, Tobin, Cone-Wesson, Dahl, Gillam et al., 2006). Review of educational research on this population is further complicated by the use of wide uncategorized ranges, by variability of amplification compliance, by cognitive development, and by intelligence level of
participants (Canadian Working Group on Childhood Hearing, 2005; Tomlin & Hebbleler, 2007; Yoshinaga-Itano et al., 2008).

In a systematic audiological sampling of 1218 school children, Bess et al. (1998) found that over 5% had mild sensorineural or unilateral hearing loss. When all forms of hearing loss from mild to severe were considered, the prevalence was approximately 11% of the sample. In a report on children with mild and unilateral hearing loss, Davis, Reeve, Hind and Bramford, (2002) note that “between five and ten percent of the clinical caseload of audiologists in the UK is mild and unilateral children” (p. 186). Caseload percentages were not provided for children with moderate or more severe hearing loss.

Reporting on a cross-sectional survey of 6166 students, aged 6 to 19 years in the United States, Niskar et al. (2001) found that 12.5% of the sample had noise induced hearing loss in one or both ears. This study ruled out children with middle ear disorders (i.e., conductive or temporary hearing loss due to illness). In a large cluster sample study of 6240 elementary students to determine prevalence of slight/mild bilateral sensorineural hearing loss, Wake et al. (2006) found that less than 1% had the targeted slight degree of bilateral hearing loss. They reported that 87% of these elementary children had normal hearing whereas 13% did not. Also found in this sample were more cases of hearing loss in Grade 5 students than in any other grade, suggesting that a “proportion of these older children had acquired or progressive losses” (p. 1849) not previously detected.

With the advent of infant screening and improved amplification technology, children with profound hearing losses are often being identified earlier and having
opportunities to gain a less severe functional status. Over the past 20 years increasing numbers of these children have acquired a CI and as a result many of these children have gained a 28 dB or greater perceptual improvement effect and are being educated orally in regular classrooms (Blamey, Sarant, Paatsch, Barry, Bow, Wales et al., 2001; Francis & Niparko, 2003). Accurate prevalence of students with MMHL is lacking but it appears that numbers could reach as high as 15% of the integrated population if all forms of MMHL are considered.

**Self-determination Theory**

SDT (Deci & Ryan, 1985) is a research driven motivation theory that accounts for individual agency while making predictions about motivation and performance based on three psychological needs as well as on self-regulation styles. SDT asserts that having a secure sense of relatedness, competence, and autonomy is critical to intrinsic and extrinsic motivation, social functioning, and self-determination and that adverse consequences for well-being can result when these psychological needs are not met. SDT contends that motivation and self-determination can be enhanced by altering environmental circumstances. In the school context, classroom teachers can enhance self-determined learning and well-being through the implementation of practical strategies supporting these three needs while attending to the motivational principles of SDT (Niemiec & Ryan, 2009).

SDT asserts that the “facilitation of more self-determined learning requires classroom conditions that allow for satisfaction of these three basic human needs” (Ryan
& Deci, 2000, p. 65). Classroom teachers, in particular, are in a position to influence learning environments positively by: (a) helping students to achieve a sense of relatedness with adults and with peers, (b) enabling students to increase their sense of competence during the academic and social components of learning, and (c) providing opportunities to enhance students’ feelings of autonomy, volition, and independence during educational endeavours. Ryan and Deci (2000) explained that a sense of relatedness is positively associated with positive school-related behaviour while reduced motivation for learning is evident when students fail to experience a secure relational base or when they view their teachers as uncaring. A sense of competence is experienced when a student feels able to deal with the demands of his or her educational environment effectively (e.g., academic tasks and social interactions). Enhanced motivation and sense of autonomy are evident when students feel able to act in harmony with their integrated selves and believe that they are a causal agent in their lives.

Ryan and Deci (2000) conducted a meta-analysis of over 30 years of motivational and behavioural research that used SDT to understand the human tendency for learning. Their purpose was to examine “the social-contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development” (p. 68). The authors asserted that relatedness, competence, and autonomy are innate, essential, and universal needs and that failure to satisfy these needs “contributes to alienation and ill-being…and is a principal source of human distress” (p. 74).
SDT differentiates between *intrinsic motivation*, the pursuit of an activity because it is inherently interesting or enjoyable, and *extrinsic motivation*, evident when one is induced to act only when behaviour leads to a separate non-inherent yet desirable outcome. Internalizing or assimilating extrinsically motivated behaviours becomes necessary “especially after early childhood when the freedom to be intrinsically motivated is increasingly curtailed by social pressures to do activities that are not interesting and to assume a variety of new responsibilities” (Ryan & Deci, 2000, p. 71).

Within extrinsic motivation, three behavioural self-regulation styles (i.e., extrinsic, introjected, and identified regulation) reflect the continuum of amotivation or unwillingness to engage in behaviours, passive compliance, or active personal commitment to the value of behaviours needed to achieve goals. Whether or not students’ three psychological needs are met influences their motivation styles.

Ryan and Deci (2000) explained that students with an *extrinsically regulated* style of motivation (e.g., being coerced) are less likely to show interest or to expend effort on academic goals. Students with an *introjected regulation* style (e.g., succumbing to external pressures to enhance self-esteem) expend effort on learning tasks but also exhibit more anxiety and poor coping with failure. Those students with an *identified regulation* style of motivation personally identify with the value of behaviours and experience “greater enjoyment of school and more positive coping styles” (p. 63).

Support for these psychological needs can help maintain students’ pre-existing intrinsic motivation or it can enhance their external motivation, by facilitating
development of more autonomous or identified regulation styles. Ryan and Deci (2000) concluded that the propensity for motivation requires supportive conditions to elicit and sustain development and that students, in particular, only begin to internalize the values and behaviours necessary for successful learning when these external supports are in place. For students with MMHL, the value of understanding how educators can facilitate sustainable motivation and self-determination through support of students’ three psychological needs will become apparent throughout this review of literature.

**Need for Sense of Relatedness**

Fundamental to the analysis of educational experience and self-determined learning is an understanding that students’ need to feel securely connected and related to those in their school environment. In an exhaustive review of nearly 20 years of literature, Osterman (2000) examined research on peer relationships, student attitudes, teacher support, and student self-esteem to assess students’ need for relatedness and group inclusion. She concluded that the reviewed research consistently establishes that teachers provide differential treatment on the basis of student characteristics such as ability, appearance, race, gender, and class and determined “that teachers’ perceptions of student engagement, as well as ability, also influence the level of support that students receive” (p. 351). Therefore, an examination of classroom contexts is critical to the investigation of the learning and social-emotional experiences of integrated students with MMHL.
Teacher-student Relatedness. From a body of research highlighting the significance of caring and relationship in education, Noddings (2001) argued that a successful and caring teacher-student relationship must be directed and sustained by the educator. In 2006, Baker assessed the contribution of teacher-student relationships to students’ school adjustment by surveying 68 teachers on the social development and behaviour of 1310 elementary students. This study did not examine HH students specifically, but found that teacher-student relationships were moderated by student developmental vulnerabilities, learning problems, and other significant child characteristics. Like Osterman’s (2000) review highlighting significance of a caring and supportive relationship between teacher and student, Baker (2006) concluded that a positive teacher-student relationship provided children with the emotional security to engage in learning activities fully and that a protective effect was evident for developmentally vulnerable participants only when they had a close relationship with their teacher.

Israelite, Ower, and Goldstein (2002) conducted in-depth interviews with seven students with severe and profound hearing loss. Although participants in this study had more hearing loss than those with MMHL, each constructed their identities in terms of what it meant to be “hard-of-hearing” instead of, and separate from, a deaf identity. Participants also provided rich detail on their social-emotional concerns, which are likely to be experienced by students with MMHL. Students’ emotionally charged statements suggested that teachers “tend to stereotype and misunderstand the actions and feelings of
a hard of hearing person” (p. 141) and that teachers’ attitudes strongly influenced their peers’ attitudes at school. For students with MMHL, a strong teacher-student relationship is likely critical as well, especially when considering factors that challenge this relationship (e.g., developmental vulnerabilities, compromised communication, and lack of interventions).

As previous teachers to the participants in segregated settings, two of the researchers in Israelite et al. (2002) had a deep appreciation of how hearing loss can present challenges to students’ sense of relatedness and self-determined learning. Their students were able to speak to the critical role that their teachers played in facilitating their development and participation in the classroom suggesting a protective effect due to this close relationship. Israelite et al. advised that teachers create a classroom environment that promotes “authentic student-student and teacher-student dialogue” (p. 145). Careful attention from classroom teachers to the development of a positive caring teacher-student relationship with youth with MMHL may help facilitate acquisition of a sense of relatedness necessary for self-determined learning at school.

**Student-student Relatedness.** Positive peer relationships are critical for social-emotional development, yet research on HH students’ self-perceptions often include descriptions of “much loneliness, rejection, and social isolation” (Stinson, Whitmore, & Kluwin, 1996, p. 132). In a seminal study on students with hearing loss, Davis et al. (1986) assessed the psychoeducational status of 40 students, aged 5 to 18 years, 30 of whom had MMHL. Extensive evaluations of student intelligence, language and academic
status, and personality were interpreted against established norms. Each student was also interviewed and their parents were surveyed. Findings indicated that even the mildest degree of hearing loss resulted in delays of one to four years in vocabulary and that parents perceived their children as “having more problems interacting with others and establishing friendships than normal” (p. 60). Significantly higher scores than the norm were also found on measures of student aggression.

In interviews, students reported considerable concern about social acceptance, maintaining friendships, and being teased or embarrassed (Davis et al., 1986). Additional interviews with 58 comparable typically hearing students found that only nine reported similar concerns about social acceptance. Davis et al. suggested that social problems due to hearing loss and society’s attitude towards this disability may play a major role on these children’s development. Findings in this study may also suggest that participants’ psychological needs for a sense of relatedness and for a sense of competence in the social world of school were not being met. At over 20 years old, this study is one of the first to use in-depth interview methods with HH children and to have MMHL categories.

In a study examining the vulnerability of self-concept in children with hearing loss, Loeb and Sarigiani (1986) investigated how measures on self-perceptions of 64 mainstreamed HH children differed from measures of visually-impaired children, and of children with no sensory impairment. Of the study’s HH sample, 45% were determined to have MMHL while the remainder had more severe hearing loss. More often than the other groups, HH participants reported being called names, feeling sad, having
difficulties with peers and being unpopular, whereas “such responses were never given by the visually impaired participants” (p. 95). Teachers and mothers also indicated that these students had greater difficulties in getting along with other children and with adults, compared to the other two groups of children. Students with hearing loss rarely mentioned being with friends as a preferred activity and it was noted that the “peer contact that does occur is often viewed as aversive” (p. 96). These findings suggest that a positive or adequate sense of relatedness with peers was not experienced by these HH participants. Although these two studies (Davis et al, 1986; Loeb & Sarigiani, 1986) are more than 20 years old, both had hearing loss categories that included MMHL and both used mixed methods to investigate a range of social-emotional experiences which shows the value investigating participants’ perspectives through interview.

Social Comparison. Moeller (2007) reported in her review of historical and recent research concerning psychosocial development of children with hearing loss, that these students “may have difficulty participating in socially oriented learning opportunities in inclusive educational settings” (p. 736). van Gurp (2001) examined the effects of different educational settings on self-concept through a survey and interviews with 65 deaf secondary students. Findings suggested academic advantages for participants who attended integrated classrooms and social advantages for those attending segregated programs. van Gurp explained how children’s self-concepts are affected by social comparison and interactions with others and through cultural values. Harter (1986) found that physical appearance and social acceptance were two critical areas of elementary and
middle school student social comparison and, to a lesser extent, academic and athletic competence and behavioural conduct were important. van Gurp advised that the key to analyzing the school experiences of students with hearing loss is to understand the role of social comparison in the educational context. She suggested that researchers specifically ask who students with hearing loss compare themselves to, academically and socially.

Research on teacher-student relatedness, student-student relationships, and social comparison suggests that researchers and classroom teachers require a more nuanced understanding of the multiple factors influencing both teacher and peer perceptions of students with MMHL. Integrated HH students might experience fewer social challenges and enhanced motivation if their teachers provided ongoing support for sense of relatedness by encouraging student-student participation and if they proactively promoted acceptance of differences amongst all members of the classroom.

Need for a Sense of Competence

It “is essential to recognize that the child creates his or her environment in conjunction with family, peers, and teachers,...these groups can hinder as well as facilitate self-perceptions indicative of adjustment in the hearing impaired” (Loeb & Sarigiani, 1986, p. 98). The challenges students with MMHL face in connecting with teachers and peers could contribute to difficulties in achieving a sense of competence within the social learning environment of integrated classrooms (e.g., interactive lessons, group work, and large class sizes). Punch and Hyde (2005) reported that the social self-concept of hard of hearing youth may be “particularly vulnerable due to difficulties in the
area of social participation with their peers” (p. 126). Findings from both surveys and interviews with HH youth (Kent, 2003, 2006) suggested a reluctance to self-identify as HH that may adversely impact students’ development of a healthy self-concept and sense of competence with peers.

**Lack of Confidence and Shyness.** In the Loeb and Sarigiani mixed-method study (1986) examining hearing, visually, and non-sensory impaired students, teachers and mothers described their children with hearing impairment as exhibiting greater shyness and less confidence at school than the other two peer groups. These students felt that a “weakness” in their own social abilities that was connected to the obstacles they faced because of hearing loss. Participants also believed themselves to be unimportant, a disappointment to their families, and trouble makers at school. Such findings are especially distressing when we learn that these same students were similar to their peers in overall intellectual and school performance scores.

In the study by Israelite et al. (2002), participants reported that “being hard of hearing is like being trapped between two worlds” (p. 140) and they spoke of their efforts to crack the code of “unknown rules” for communicating with typically hearing peers. These students were “caught in the dilemma of wanting to be included but feeling anxious and mistrustful about their encounters with hearing peers” (p. 141). Likely, students with MMHL have similar concerns with confidence and require ongoing support to feel competent with the social tasks necessary for achieving learning outcomes in regular classrooms.
Punch and Hyde (2005) explored whether or not students with moderate to profound hearing loss avoided occupations demanding social interaction. Sixty-five integrated adolescents, one third of whom had moderate hearing loss, were surveyed on scales of loneliness; twelve of these students were also interviewed. Survey results showed no statistical differences on measures between HH and typically hearing students. However, the interview data detailed HH participants’ intense sense of social isolation and negative peer experiences culminating in reduced confidence in academic and social interactions. One student reports: “Well, that’s why I haven’t got a part-time job, because I don’t really have too much confidence in working at...counters and things” (p. 134).

The authors stressed that classroom teachers need to be particularly sensitive to these students’ intense desire for normalcy and to their reduced self-confidence, and they must actively facilitate social inclusion with peers, both inside and outside of the classroom. Of interest to educational investigators is that these students only divulged incongruent social-emotional concerns during in-depth interviews and not in survey responses. Therefore the current study seeks to investigate social-emotional elements through in-depth interviews in an effort to explore a range of responses from students with MMHL about their learning and social-emotional experiences.

Identity Development and Disability. Educators also need to be sensitive to the social construction of disability and its impact on students whose social-emotional adjustment is linked to social context and interactions (Best, 1999). In Gill’s (1997) report on disability identity development, she explained that there is a barrier to
psychological wholeness not due to the disability itself but in “the manner in which family members, professionals, and other significant social figures frame the impact of disability for the disabled individual” (p. 43). Ryan and Deci (2000) argued that adults can support students’ psychological needs when they have a realistic understanding of “the design of social environments” (p. 68) contributing to student development, performance, and well-being.

Claiming an identity as a disabled youth is a complex undertaking. Self-identity work, as defined by Erickson (1968), is the realistic appraisal and integration of inner and outer experiences, and is an essential life task towards self-determination. Research outlines conflicting socio-cultural forces that discourage positive self-identity development by individuals with disabilities (Gill, 1997; Weinberg & Sterritt, 1986). These implied cultural messages ensure that young people with disabilities internalize social fear and devaluation of disability leaving them vulnerable to disillusionment and oppression (Gill, 1997). Even if a child’s disability is minimal or moderate, engaging them in a process of positive disability identity integration—defined by Gill (1997) as an incorporation of all the components of the self, including the disabled self, into a whole—can have a profound impact on their sense of competence at school.

Many students with disabilities, regardless of severity, expend enormous effort “to prove their validity at the cost of burn out, fear of failure and, ultimately, the lack of a comfortable identity” (Gill, 1997, p. 45). These students reject an identity that includes a realistic appraisal of their disability. Disability can also manifest “in many degrees of
visibility and only those with hidden impairments can play the game of passing” (Gill, 1997, p. 45). Evident in much of the research on students with hearing loss is the desire “to pass,” and to emphasize their “normalcy” (Kent, 2003, 2006). Students in Israeliite et al. (2002) reported that “we have to be normal…talk and act like hearing students…you have to keep things private because you’re just afraid what other people will think or do to you” (p. 141). Such statements hint at the effort students with MMHL expend to achieve a sense of competence in the social environment of integrated classrooms with their largely invisible hearing disability.

**Reluctance to Self-identify.** Warick (1994) surveyed 290 youth with hearing loss, ages 13 to 25, through a HH consumer group publication, to assess educational, career, social, and psychological status. Over 68% of the respondents were students and nearly 35% of the overall sample had MMHL while the remainder reported more severe hearing loss. Overall, these students were found to be isolated, were reluctant to self-identify at school, and aspired to be “normal.” This is an interesting finding considering that there must be some degree of acceptance of their hearing loss, given their membership in, and access to, the hard of hearing consumer group distributing the survey. One student reported trying to pay attention “to the teachers and [only] if it was necessary I would tell them I had hearing problems” (p. 255) while a second student exhibited pride in “passing as normal” when reporting that peers “couldn’t believe it because it seems to them that I didn’t have one [a hearing disability]” (p. 255).
Kent (2003) examined the health behaviours of 52 mainstreamed HH youth through a survey of psychosocial elements presenting barriers to well-being in school contexts. All respondents had at least a moderate hearing loss. Other than participants’ higher scores on loneliness, few statistically significant academic differences were found compared to a typically hearing control group. However, 56% of students with hearing loss—who used hearing aids—did not self-identify as having a hearing disability when asked. Of those who did self-identify, Kent found that more were at-risk physically and psychologically, due to teasing and bullying compared to those who did not self-identify.

In a second study, Kent (2006) explored the perceptions of 16 adolescent hearing aid users with moderately-severe hearing loss through in-depth interviews and found that these students viewed their hearing aids as stigmatizing and “not compatible with their perceptions of what is desirable” (p. 461). Students reported that small hearing aids were preferable to more visible FM systems but that school was “fine” only when no one could see these devices. A teacher intervention advised by Kent is to normalize the use of assistive devices in the school environment. Studies by Kent (2003, 2006) and Warick (1994) touch on the contentious relationship between disability identity, self-concept, and sense of competence when participating in the social environment of school. Students in these studies were aware of their hearing loss but resisted self-identifying as someone whom they viewed as “less than normal.”

*Cultural Identification and Self-concept.* A great deal of research has explained that profoundly HH and deaf students are often part of a cultural and linguistic
community with strongly held beliefs that Deaf people are not disabled (e.g., Marschark & Albertini, 2004). Inclusion in and acceptance by a group where one is not made to feel different because of a hearing deficit are benefits of Deaf Culture membership. Without a cultural and linguistic community, youth, who are not Deaf but who have MMHL, face challenges in gaining support and acceptance, and in developing positive self-identity and self-concept. These challenges may result in a compromised sense of competence at school.

Acculturation and self-concept are highlighted in a German web-based study of 618 HH and deaf individuals assessing development of psycho-social well-being in the context of cultural, social, and personal resources (Hintermair, 2008). Over 10% of the respondents reported having MMHL. Findings indicated that those participants “with marginal acculturation collectively have less self-esteem and show less satisfaction with life” (p. 294) than those identifying with deaf or hearing cultures only. There was also a heightened “significance for one’s psychosocial well-being of having a cultural anchor” (p. 294) amongst participants. When comparing this study to a similar one in America, where it was felt there is a greater willingness to accept differences, Hintermair indicated that society’s acceptance of, and collective attitudes towards, the social participation of individuals with disabilities impacts overall life satisfaction. Although using a small population of youth with MMHL, Hintermair’s study is one of few to address social-emotional well-being empirically and life satisfaction as it relates to acculturation of those with a range of hearing loss.
In a study with 115 youth with unilateral hearing loss, Bovo, Martini, Agnoletto, Beghi, Milani, and Sangaglia (1988) found that 63% of respondents reported difficulty understanding speech in noise and 27% had feelings of embarrassment and inferiority. The authors reported that unilateral hearing loss is “a far from negligible handicap” (p.71) upon learning and relationships with their peers and teachers. Richardson and Woodley (1999) investigated cognitive learning strategies of 382 students who had self-identified as HH on university records. Nearly 30% were categorized as “deaf” while the remaining were labelled “hard of hearing.” Respondents’ scores on cognitive approaches to studying were similar to typically hearing students and unlikely to impact academic achievement. However, these students were found to have had poorer previous qualifications and were older upon enrolment than students with no disabilities.

In this study higher scores were evident on measures of motivation, maintenance of self-esteem, and fear of failure. Richardson and Woodley (1993) advised that academic staff be trained to ensure “that they encourage a positive self-concept in students with hearing loss and to not (intentionally or otherwise) promulgate negative images and stereotypes” (p. 543). These authors called on researchers to focus less on the cognitive aspects and more on the “affective consequences of hearing loss” (p. 533) that effect student’s self-concept.

**Explanatory Models of Disability.** Students with MMHL may have a specific image of disability guiding their behaviour and influencing their self-concept. In a study investigating self-understanding of disability, Kinavey (2006) outlined three disability
explanatory models that a student might adopt. One model, unwittingly encouraged by parents and teachers, involves overcoming society’s negative view of disabled people. Yet “persistent overcoming requires persistent denial of a central part of one’s self, the disabled self” (p. 1103) and is cognitively exhausting. A second model externalizes one’s disability to limit its negative social-emotional impacts. Those using this model do not “overcome” their challenges. Rather they might demonstrate visible discomfort when references are made to their disability and state that “as far as my disability, I just don’t think about it” (p. 1100). With an integrated identity however, students permit themselves to be vulnerable, to express their needs, and to act autonomously.

These three models also can be informed by the self-regulation styles of motivation (i.e., extrinsic, introjected or identified self-regulation) as described in SDT (Ryan & Deci, 2000). Students with hearing loss may be extrinsically self-motivated to behave in ways that dispel society’s negative view of their disability, or have an introjected style of motivation when they ignore their disability to enhance self-esteem, or, if they personally identify with their disability, they may be able to act autonomously regardless of social images and attitudes.

An understanding of students’ explanatory models of disability, self-regulation styles, and promotion of their positive self-identity development may enable teachers to support those with MMHL as they work towards more competent and self-determined success in regular classrooms. By actively altering the context of the classroom, teachers can also diminish the ways in which interactions, expectations, assumptions, and remarks
create the disability (Cameron, 2007), especially when a student’s disability is minimal and not necessarily visible or acknowledged by the student, their peers or teachers.

Classroom teachers need to be cognizant of the influences of pervasive social attitudes towards disability to support HH students’ sense of competence and healthy self-identity development positively. They can be mindful of the fact that these same social attitudes can influence their own expectations and assessments of these youth as well. With recognition of the effort expended by students with MMHL to deny their disability and to appear “normal,” educators can begin to appreciate how little energy is available for managing communication breakdown related to hearing loss, and for independently meeting the everyday cognitive demands of performing learning tasks at school.

Need for a Sense of Autonomy

Learners with communication disabilities can experience significant challenges to both academic and social self-efficacy (Fischgrund, 1995). Self-determined learning is more readily achieved when students’ psychological need for a sense of autonomy is supported (Ryan & Deci, 2000). However, for students with exceptionalities to take control during their learning, significant adults must teach them how to solve problems and make wise choices (Brooks, 1999), while providing reasonable opportunities for skill development. Unfortunately students with MMHL whose disability is largely invisible and who may avoid self-identifying as HH, who neglect to use their assistive devices, and
who resist asking for assistance from their teachers, even when it is needed, may also unwittingly sabotage teachers’ efforts to support their sense of autonomy.

**Teachers’ Perceptions and Classroom Challenges.** To support students in making realistic goals and wise choices, it is critical that classroom teachers have an appreciation of the obstacles that students with MMHL face. With spoken language the preferred mode of communication, these students may have their communication and educational needs overlooked due to a belief that they are able to function more easily in classrooms with less need for support services than students who have more severe hearing loss (Antia et al., 2009). Many educators may still have misperceptions about optimal teaching strategies and remain unaware that students with MMHL, in their attempts to independently manage their learning obstacles, are ultimately “at risk for psychoeducational and psychosocial deficits” (Tharpe, 2008, p. 12). Unfortunately it appears that these students continue to be treated by teachers as if they have no hearing loss (Johnson et al., 1997).

In a survey of 45 teachers, 56% of whom reported current or previous professional experience with HH students, McCormick Richburg and Goldberg (2005) assessed common misperceptions about interventions for students with minimal hearing loss. Findings indicated that many teachers remain unaware of the ramifications for minimal hearing loss on learning needs. While examining intervention practices, the authors—an audiologist and a speech-language pathologist—believed it “disturbing to find that more teachers…strongly agreed that preferential seating alone was all that was
needed for these students” (p. 13). Another study assessing the effects of degree and type of hearing loss on academic performance found that of 47 participants those with unilateral and minimal hearing loss showed lower performance than children with more severe hearing loss” according to teacher evaluations (Most, 2004, p. 154). It was speculated that these findings may be due to lack of interventions and classroom supports usually afforded to students with more severe hearing loss.

The classroom environment itself presents challenges for HH students to function with autonomy. In Warick (1994), over 90% of surveyed students with hearing loss reported difficulties hearing their instructors and classmates at school and claimed that new and substitute teachers were especially difficult to speech-read. These students also explained that staff changes usually meant that they had to adjust their communication strategies with little or no support from their educators. In a study on speech recognition in classrooms, Johnson et al. (1997) investigated 12 children with minimal hearing loss. The authors concluded that these students had substantial difficulties with speech comprehension and that few classrooms meet acoustic criteria for their effective learning. In a report outlining challenges and opportunities for children with unilateral hearing loss, Oyler and McKay (2008) advised that teachers be educated about potential difficulties and classroom strategies and cautioned against “classrooms where poor acoustics and reverberation will affect a child’s ability to understand the instruction” (p. 16).
Recommendations for classroom noise levels are usually set between 40-45 dB yet classrooms often produce a constant level of noise at 60-63 dB, with many reaching 75 dB or higher (Schick, Klatte, & Meis, 2000). Studies also suggest that excessive and continuous classroom noise can lead to increased stress, inability to concentrate, and can inhibit motivation and performance outcomes for typically hearing students (Norlander, Moas, & Archer, 2005). More adverse consequences for learning are likely for students with MMHL who rely on compromised aural communication in noisy classrooms.

Misinformed teachers, changes to teaching staff, excessive noise, or expecting students with MMHL to carry a disproportionate amount of responsibility for successful communication impact their social-emotional experience and learning. It is also unlikely that these youth—who have a communication disability—have the know-how, self-confidence, or even the undivided attention of their teachers to accomplish the daunting task of educating their educators about hearing loss, especially in front of their peers. It is unrealistic to believe that these students are capable of autonomous learning and of reaching their full potential, without ongoing support.

**Assistive Devices.** Assistive amplification devices such as hearing aids and FM systems present complex issues for students’ sense of autonomy and ultimately for their teachers. The benefit of amplification is undeniable, yet it is unreasonable for classroom teachers to rely on these devices to manage all of the risks to independent learning that students with MMHL face. Even when these devices are prescribed, studies by Bess et al. (1998) and Kent (2006) have indicated that they are rarely or inconsistently used. In a
study of 66 students with unilateral and mild hearing loss, over 50% with unilateral hearing loss and 44% with mild hearing loss who were prescribed amplification devices reported never using their devices (Davis et al., 2002).

The complexity associated with the use of assistive devices is evident when one HH student reports: “I use a FM at school. I don’t really feel comfortable wearing it in classes…it does help me a lot. But I don’t like using it around the other students” (Punch & Hyde, 2005, p. 132). Unfortunately, due to social anxiety, some students are willing to forego the benefits of amplification, preferring instead to suffer adverse learning and social-emotional consequences. Considering students’ reduced speech comprehension and increased cognitive fatigue when negotiating their school day without the benefit of their assistive devices, educators can begin to appreciate how compliance issues can impede self-determined learning.

Student Well-being. It is not surprising that students’ overall well-being is negatively impacted by MMHL. In a study of 1218 Grade 3, 6, and 9 students to determine prevalence of minimal sensorineural hearing loss, educational performance, and functional status, Bess et al. (1998) found that poorer functional health status was associated with even those with the mildest forms of permanent hearing impairment. Wake, Hughes, Collins, and Poulakis (2004) investigated the health-related quality of life (HRQoL) of 89 eight-year-olds with congenital hearing loss. Nearly 54% had MMHL. Surveyed parents indicated that hearing loss had a significant impact on HRQoL, and Wake et al. found that “unexpectedly, milder hearing losses tended to be related to worse
scores” (p. 415). These findings confirm the need for further investigation into the social-emotional experiences of this population. Unfortunately, no specific educational variables impacting HRQoL were investigated in this study (e.g., itinerant or speech-language interventions, integrated or segregated classrooms). Yet, teachers and family members should note that “what may appear to clinicians to be a relatively mild condition can still pose significant threats to well-being for the children” (p. 416).

In a review of literature on unilateral and minimal bilateral hearing loss in children, Tharpe (2008) concluded that students with relatively mild hearing loss may be exerting “more energy than their typically-hearing peers to listen in a classroom setting, thus leaving them with less energy and capacity for processing what they hear, taking notes, and other activities” (p. 12). Cognitive fatigue may also manifest in behaviour issues (e.g., distraction, inattentiveness, or disinterest) which can be easily misinterpreted by teachers (Oyler & McKay, 2008) and can preclude participation in extracurricular school activities which ultimately diminishes the educational and social-emotional experience for students with hearing loss (Israelite et al., 2002). Consequently, “these young people may experience feelings of deficiency, rather than efficacy” at school (Punch & Hyde, 2005, p. 126).

Student variables such as compliance with assistive devices, quality of life and well-being, cognitive fatigue, and an apparent desire for independence, even when help is needed, contribute to the inconsistent messages being sent to classroom teachers who are attempting to support a sense of autonomy for students with MMHL. Yet teachers can
provide enabling contexts through tailored learning activities and careful consideration of
the learning environment to support student self-efficacy. Informed classroom teachers
can help students with MMHL to set realistic goals, solve communication problems, and
make positive and informed choices, all of which are autonomy enabling.

Summary

Students’ desire for relatedness with their teachers and peers, for successful
inclusion in the social arena of their schools, and for control over their learning
environment may intensify their resistance to identifying as different from their typical
hearing peers and may undermine their self-determined learning. Teachers’ ability to
gauge the learning potential of these students effectively can be enhanced, however, by
being attuned to degree of disability integration and motivation styles. With social-
emotional needs in mind, teachers can tailor positive learning opportunities and set
realistic expectations for students with MMHL.

With up to 15% of students in integrated classrooms experiencing MMHL,
researchers must turn their attention to inclusive and effective evidence-based practices
for use by classroom teachers of these exceptional students. Given that students with
hearing loss provide contradictory reports on surveys and during face-to-face interviews
(e.g., Kent, 2006; Punch & Hyde, 2005), existing research can be enhanced by qualitative
studies that target key informant perspectives on the social-emotional variables that
impact the educational experience of students with MMHL. Such research can also
investigate the influence of complex social-emotional concerns not previously considered such as disability integration, identity development, and motivational styles.

Use of SDT as an educational analytical tool has strengthened our conceptual understanding of the insights provided in the reviewed literature to inform classroom teachers pragmatically about the learning and social-emotional needs of this population of exceptional students. This review of literature has also been instrumental in guiding the design of a qualitative multiple case study employing in-depth interviews of students with MMHL to gain key informant perspectives on their learning and social-emotional experiences.
Chapter 3
Method

This study on students with MMHL was designed and conducted by the author. This chapter describes the qualitative methodology of this study and delineates the specific methods used to collect and analyze data. The four sections include: (a) the rationale for the qualitative methods used, (b) participant selection, (c) data collection, and (d) data analysis strategies.

Rationale for Qualitative Methods

This study enabled students with MMHL to share their educational stories and experiences. Given the purpose of this study, qualitative methods allowed for an exploratory and discovery-oriented approach to the phenomenon of MMHL. Multiple case studies are used when it is appropriate to consider several cases in a single study which are either intrinsic or instrumental depending on purpose. Intrinsic case studies are undertaken to understand better a particular case because it is, in itself, of interest whereas instrumental case studies are undertaken to represent a particular trait or problem (Stake, 2005). The purpose of this multiple case study research is instrumental, “to provide insight into an issue or to redraw a generalization” (Stake, 2005, p. 445) regarding the learning and social-emotional experiences of students with MMHL.

Five students with MMHL were asked directly to reflect upon and describe their educational experiences, and to express in their own voice what was important, relevant,
and meaningful to them, to “capture how they view their world, to learn their terminology and their judgments, and to capture the complexities of their individual perceptions and experiences” (Patton, 2002, p. 348). Three of these students were chosen to be included in the final report.

Very little research has investigated the learning and social-emotional well-being of children and youth with MMHL at school. Research on students with hearing loss is generally quantitatively designed with a reliance on surveys or inventories to collect data on personal issues and opinions. Often data are collected from significant adults such as parents and teachers and not from the students themselves. Overall these quantitative data have indicated that students with MMHL are not significantly different from their peers academically or social-emotionally other than in the areas of speech and language delay and loneliness. However, in the minimal research employing in-depth interviews with students with MMHL, findings have indicated that social-emotional issues do concern students and their families.

Of interest to researchers are the occurrences of students with hearing loss providing contradictory responses on survey instruments compared to responses offered during in-depth interviews. In interviews, students have indicated that loneliness, isolation, failing to fit in with peers, and frustration with their learning environments and with educators are common experiences. And there appears to be a common attitude reflecting a fierce independence and need for control by these same students; traits that may inhibit their help seeking behaviour or self-identification of needs at school. It is the
goal of this study to investigate this phenomenon qualitatively to unearth the perspectives of students with MMHL in their own words. In-depth interviewing is clearly the most effective method to achieve this goal.

Given the paucity of information on the experiences of students with MMHL, the purpose of this study can be attained by using detailed in-depth interviewing to uncover the unique qualities of a small number of specific cases (Stake 2000). It is not the purpose of this case study research to generalize findings but rather to present concepts and themes provided by students whose lived experience includes MMHL. Ideally, meeting this purpose will benefit classroom teachers and educational researchers and instigate reflection on current and future practice, and initiate further investigation into the experiences and concerns of students with MMHL.

**Participant Selection**

Stake (2005) showed the importance of selecting cases that are typical or representative of other cases to maximize our learning from them, while Patton (2002) explained that well chosen cases will enhance our understanding of a phenomenon. McMillan and Schumacher (2006) referred to the selection of such information rich cases as purposeful sampling. Participants for this study were selected through purposeful sampling. Initial recruitment of participants took place through a large Canadian agency that provides professional services to Deaf, deaf, and HH individuals. The agency was provided with the Ethical Clearance Certificate from the General Research Ethics Board of Queen’s University (Appendix A) and a detailed description of the proposed study.
Then recruitment and information flyers were posted and handed out in audiology clinics across Ontario in an attempt to reach eligible participants who met inclusion criteria: degree of hearing loss (i.e., mild, moderate, moderately-severe), hearing loss diagnosis for a minimum of 2 years, and between 16-21 years of age. The intention was that audiologists would encourage potential clients who met inclusion criteria to contact the researcher.

None of the selected participants were recruited through this process, because audiologists do not maintain or organize client files or appointment contacts by degree of hearing loss and or by age of client. It was also acknowledged that youth with hearing loss are more often served through hospital audiology clinics than through community clinics in Ontario. Thus the selection pool of potential participants from this source was less effective than anticipated by the researcher. It should be noted that ethical clearance from school boards or hospital clinics was not pursued due to the constraints of time and resources necessary to complete this process with the various ethical boards. Thus the participants in these more convenient settings were not accessed and a delay in recruitment was the result.

One month after the attempt at recruitment in audiology clinics across Ontario, recruitment flyers were posted on the campus of Queen’s University in late November 2009. One participant emailed me in early December after viewing a recruitment notice and an appointment for an interview was scheduled. An interview with this first participant was conducted in late December 2009. A second round of recruitment flyers
was distributed throughout the Kingston community on public notice boards, at local audiology clinics, through active advertisement in the Queen’s Disability Services office, and in local and surrounding community medical offices in January and February of 2010. None of the selected participants was recruited through this process.

During train travel through central and western Ontario in late February 2010, I had opportunity to share information about this study with a previously unknown co-passenger. This individual then communicated details about this study to an acquaintance, a student with hearing loss, who contacted me by email the following day. An interview was scheduled at a university in Ontario convenient to the participant and one week later this second interview was conducted.

In late February 2010, a request for recruitment assistance was sent to a Canadian consumer agency which provides information and services to HH individuals. This agency posted the recruitment information on their membership communication boards and forwarded the request to a national organization for parents of HH youth. After email discussions with an academic board member and delivery of the researcher’s ethical clearance certificate, the recruitment flyer was included in both email and print communications to this organization’s membership which includes parents, specialist teachers, and other professionals. Within hours a number of potential participants and parents of potential participants contacted the researcher by email expressing their willingness to participate in the study. It became increasingly clear that once the
conundrum of finding access to the population was solved, students with MMHL were eager to share their experiences.

The remaining three of the five participants were selected from this large pool of email contacts from across central and western Ontario based upon acceptable participation criteria and on the particularities of travel and meeting arrangements for each separate interview. These three interviews were conducted throughout the month of March 2010.

The response to the request for participants was overwhelmingly positive and emails from individuals across Canada who both met and did not meet the criteria of this study were vetted. Multiple emails were received from youth expressing interest in future research and requests for information and related research were received from parents of very young children with hearing loss, students with hearing loss and other multiple disabilities, teachers of the Deaf, Canadian researchers in audiology and speech language pathology, student researchers from faculties such as kinesiology, teachers (e.g., special education and itinerant) from various school boards across Ontario, and other interested individuals who had themselves studied at the Faculty of Education at Queen’s University. An email response was given to each contact expressing gratitude for their interest and a request for permission to contact them in the future for potential participation in another study once the researcher commenced doctoral studies to investigate the same population. All my email requests for future contact were answered affirmatively.
All individuals who self-selected to participate in the current study have been audiologically diagnosed with MMHL for a minimum of two years and had bilateral sensorineural hearing loss acquired pre- or post-lingually. This criterion ensured that each of the participants had an ongoing lived familiarity with consistent mild and or moderate degrees of hearing loss over a period of time. Participants’ ages, and their years of familiarity with hearing loss, enabled them to speak reflectively on their experiences in an educational setting and allowed for their provision of informed consent. These criteria also provided for a wide range of participant perspectives that directly addressed the research questions.

All but one participant had contact with me by email prior to the meeting for the purposes of ensuring participant criteria and for scheduling the interview. The fifth participant who was months shy of her 16th birthday was volunteered by a parent who provided all initial information and made the interview arrangements. In this case, after parental and participant consents were granted, and when the parent had vacated the premises, I inquired if the participant had felt pressured to be there and asked if it was indeed her desire to participate in this study. The student was also advised that she was not obliged to continue and that it would be absolutely acceptable and not an inconvenience if she wished to withdraw from the interview at any time. The participant assured me of her willingness and interest in participating in the study.

Prior to commencing the interview, each participant read through the Letter of Information (LOI) (Appendix B) and one guardian reviewed the Letter of Information for
Parents (Appendix C). All participants gave consent (Appendix D) in writing and verbally, to data collection, audio recording of interviews, and dissemination of the data.

In each case following a review of the LOI and provision of consent to proceed, the participant and I established a conversational rapport and ease of communication satisfactory to us both as HH individuals. Each participant was given the option of proceeding with either two 45 minute interviews or one 90 minute interview. Each participant chose to proceed with one 90 minute interview due to the convenience of one meeting and time constraints in their schedules. The issue of fatigue with listening for a longer period of time was raised by me but each student gave assurances that this was not a concern. Early during each interview I self-identified as HH and provided a brief personal history touching on the circumstances of my diagnosis in early childhood, subsequent use of assistive devices, and my personal rationale for investigating the experiences of students given my role as an educator. This disclosure was met with surprise by each participant and it appeared to immediately enhance trust and relatedness between us. This disclosure also confirmed for each participant my aspiration to authentically report on their experiences with empathy and respect and I was enthusiastically informed of how “awesome” it was to have an opportunity to speak to “someone who understands.”

Data Collection

The term triangulation “assumes that the use of different sources of information will help to both confirm and improve the clarity or precision, of a research finding”
Three sources of data were used in this study: (a) a questionnaire, (b) semi-structured interviews, and (c) field notes.

**Questionnaire**

At each meeting, each participant was asked to complete a short two-page questionnaire inspired by both the Hearing Handicapped Inventory (HHI) (Newman, Jacobson, Hug & Sandridge, 1997) and the Hearing Related Quality of Life Measurement for Adolescents (HRQLMA) (Streufert, 2010). The HHI is a 25-item questionnaire designed to assess the impact of hearing loss on an individual’s lifestyle and has been shown to have “good face validity, high predictive and construct validity, and internal reliability” (Holcomb & Punch, 2006, p. 4). The HRQLMA is a 47-item inventory designed to quantify the physical, emotional, and social consequences of hearing loss for children and youth.

The questionnaire designed and used in this study (Appendix E) had a number of objectives. The first goal was to collect specific data on age, gender, type of hearing loss, assistive devices used, and to obtain an overview of participants’ responses to topics related to hearing loss, daily activities, extracurricular activities, and self awareness. A second goal was to provide students with an overview to situate their thinking on topics to be explored during their interview. A third goal was to elicit conversational points for initiating discussion during the interview if needed. The questionnaire also provided additional data for deductive analysis, and in combination with participant interview
responses, was intended to enhance the validity of the final analysis. The questionnaire successfully met each of these goals.

It was possible that the questionnaire tool would allow students to provide conflicting data responses in this survey and during the interview, as evidenced in the literature (Davis et al., 1986; Israelite et al., 2002; Kent, 2003; Punch & Hyde, 2005). However, the questionnaire tool used in this study was not designed expressly to meet this goal due to its short length and its format.

**Semi-structured Interviews**

The interview guide was designed by me in consultation with, and utilizing critiques from, educational researchers and counselling professionals in the fields of hearing loss and social work to ensure appropriate and sensitive questions. The development of this tool followed extensive review of applicable literature in Chapter 2, with questions designed to elicit rich responses regarding the impact of MMHL on classroom learning experiences, peer interactions, teacher relationships, and disability identity. The final interview guide (Appendix F) was organized along topics intended to investigate the various components of students’ daily lives. These topics included: (a) personal, (b) teachers, (c) peers, (d) school, and (e) disability.

My extensive experience interviewing HH individuals in a previous career as a counsellor ensured that an empathetic and balanced approach to the collection of sensitive personal data was achieved while attending to participants’ physical and psychological comfort. Each interview was held between 9 am and 5 pm at a location
appropriate in terms of listening environment, security, comfort, and confidentiality for
the participant and included private meeting rooms in universities and business offices.
These locations had quiet acoustics, a comfortable temperature, and adequate lighting.
Participants were provided beverages such as water and juice and were made aware of the
location of restrooms. Each participant was also reminded that withdrawal from the
interview was possible at any time.

Strict attention to optimal communication strategies included sitting directly
across and no further than four feet from each student, speaking clearly and concisely and
only when the student was looking directly at me. It was also ensured that nothing
blocked the view of my face and care was taken to continually assess the participant for
signs of fatigue, restlessness, or agitation. The primary interview goal was to convey
“that the researcher hears and connects with the person [to] elicit more valid data”
(McMillan & Schumacher, 2006, p. 353). Discussion of topics identified as meaningful
by the participants was enhanced by question flexibility, a conversational pace and tone,
and a curiosity about their lived experience.

Each interview took approximately two hours from the initial greeting, through
review of the letter of information and consent forms, completion of questionnaire and
formal interview, response to students’ questions about me, my research, and future data
dissemination. Upon completion and exit from the interview, each participant but one
was presented with a ten dollar gift card to a national food chain, as thanks for their
participation. The excluded participant was mailed a gift card shortly after their
interview. Each participant expressed surprise and gratitude for this token. Each participant also expressed their thanks for my willingness to travel to their city to meet them and for giving them an opportunity to share their stories with “someone who gets it” and to “hopefully make a difference.”

To better facilitate data analysis, each interview was digitally audio recorded using two recording devices. Verbatim transcription of the interview commenced not more than 24 hours after each meeting to ensure that not only the words and meaning were captured but the visual and experiential data as well. It should be noted that my visual and experiential memory is superior to my auditory memory due to my hearing loss and skill set. Participants’ facial expressions and body language were recalled and recorded as additional field notes during transcription with excellent clarity.

Each interview was transcribed and then re-read twice while attending to accuracy. The difficulties encountered during transcription should be noted. I averaged nearly four to five times the usual ratio of time commitment for each transcription due to my own hearing limitations and, at times, due to the compromised speech clarity of some of the participants because of their hearing loss. For these reasons each interview transcription was played, read, and re-read to ensure verbatim accuracy.

Field Notes

Field notes, taken during and immediately following the interviews, recorded observations and my initial reflections. These field notes represent both my subjectivity and perspectives as a HH researcher, teacher, and student, and add to the reliability of the
study. Recording observations enhanced the descriptions of interviews through documentation of thoughts and feelings experienced during the data collection period.

**Data Analysis**

The development of a manageable classification system was the first step of the data analysis (Patton, 2002). Data analysis was iterative and in all data sources emerging categories and patterns were identified and coded broadly with pen and paper, and then synthesized into themes to ensure that all perspectives and meanings were reflected.

**Questionnaire**

The questionnaire was used to develop consistent descriptions of the participants and to provide an overview of the issues individually identified as important. The student participants varied in age, gender, degree and type of hearing loss, ethnic background, and residence within the province of Ontario. Three were females and two were males, and ranged in ages from 15 to 21 years of age. One student identified as having mild hearing loss, one with moderate hearing loss, one with mild loss in one ear and moderate to severe in the other, and two students had moderate to severe hearing loss. All students were prescribed with two hearing aids which were used during their interviews. All but one student had experience with FM systems within an educational setting.

**Interview**

Initial thoughts and impressions were recorded during transcription of interview data. However these notes were set aside and not considered until after an emic or insider’s perspective was captured during open coding of the issues raised by participants.
Following this initial open coding, comments and questions made by me were removed from the transcripts to gain further meaning from the participant’s voice and to capture the messages they individually conveyed. Data labels were then categorized to reflect pertinent issues arising from these emic perspectives. Participants were encouraged to share their educational experiences from their earliest memories at school to their current situations as students, and to use this forum as an opportunity to speak directly to educators on the issues important to them. The data clearly conveyed the participants’ interests and concerns.

The data were then considered using etic terms and organized to assess the issues and motivational themes identified in SDT (Deci & Ryan, 1985) with its attention to the three psychological needs of students; relatedness, competence, and autonomy, as well as motivational styles. The data were also analyzed to reflect themes arising in literature related to disability identity development (Cameron, 2007; Gill, 1997; Kinavey, 2006). These frameworks provided an analytical structure to enhance crystallization of student data. Collaborative debriefing discussions with professional peers, including educational researchers and counsellors experienced with hearing loss, were utilized to enhance reliability and to expand interpretation of the data. Finally the researcher’s initial thoughts and impressions recorded during transcription were assessed and compared with the categories and themes that had been generated.

Two chapters report participant findings. Chapter 4, *Three Students with MMHL*, is structured to reflect the interview questions and provides descriptive accounts of the
lived experiences of students with MMHL. An etic analysis of the data is reflected in this chapter. Chapter 5, *Emergent Patterns and Themes* provides data organized to reveal how participants conceptualize their MMHL and highlights the strongest and most important messages from an emic perspective.

**Researcher Positionality**

The researcher’s positionality reflect both my lived experience with bilateral moderate to severe hearing loss and my careers in counselling HH individuals and teaching students with hearing loss in integrated classrooms. Initial assumptions approaching data collection were that student participants would likely report very different learning and social-emotional experiences than mine experienced over 35 years earlier, due to improvements in educational interventions, advances in technological devices, and increased general awareness of exceptional students and their needs, by professional and teaching personnel. I assumed that that my educational experiences were isolated and dated because of my unique circumstances. I speculated that students with MMHL would report that their academic and social-emotional needs were satisfactorily met and that their educational experiences were primarily positive.

Contrary to these speculations, student case data indicated a broad range of learning and social-emotional experiences and touched on a number of issues that still require the attention of educators. I found that my background and rich exposure provided insight, and my key informant knowledge served to enhance both collection and inductive analysis of student narratives while retaining a “commitment to maintaining the
integrity of the phenomena and preserving the viewpoint of the subjects” (Fontana & Frey, 2002, p. 659).

Stake (2005) argued that qualitative researchers should select cases that are typical or representative of other cases to maximize our learning from them. The selection of such information rich cases or purposeful sampling was accomplished by reducing the number of cases reported in this thesis from five to three. The decision to include only the cases of Angelina, Nicholai, and Brooke was based on the strength of their articulation of important issues raised by all five participants. Of the two participants not reported in this thesis, one student explained unfortunate experiences with highly atypical and negative incidents with teachers and administration due to her hearing loss. The second case not reported in this thesis showed evidence of excessive denial of any communication limitation due to MMHL and a reluctance to articulate any specific educational need. Like the four other cases, this participant eventually expressed similar positive and negative educational experiences related to MMHL; but I felt throughout the interview that the participant demonstrated a less developed self-awareness or an inability or refusal to communicate the same. This assessment arises from my observation of this participant’s difficulty communicating with university staff and with the researcher, prior to and during the interview. Given my experience as a counsellor, I was also cognizant of deflection tactics used by this participant during the interview when topics appeared to indicate weakness or vulnerability. This case would require analysis using literature addressing the phenomenon of hypermasculinity or
adolescent bravado among youth with disabilities, a challenge beyond the scope of the current study.

Summary

This chapter has made the case for using qualitative research methods and described the stages of recruitment that led to the participation of five youth with MMHL in semi-structured interviews. The methods used to collect and analyze data and to select the three most information-rich cases for inclusion in this thesis are also described.
Chapter 4

Findings: Three Students with MMHL

Findings from participants’ interviews, questionnaires, and researcher observations are reported in this chapter, organized in three sections. Within each section, a description of one participant is provided. Each description highlights that participant’s particular life circumstances, their experiences at schools, with teachers, and their personal strategies to manage learning with MMHL.

Introducing Angelina

Angelina is an energetic, athletic, and highly motivated 20-year-old university student, with an engaging smile and an easy laugh. At 16 years she was diagnosed with bilateral mild sensorineural hearing loss after experiencing difficulty in her chemistry class. “I noticed that when my teacher spoke to us I had a hard time understanding. Then I realized when she was turning to the board to write down whatever she was saying, I couldn’t hear her. I didn’t understand.” Prior to her diagnosis Angelina says she remembers that “it felt like something was missing. I couldn’t figure out what it was.” Continuing she says “I didn’t think that anything was wrong with my hearing. I thought maybe I was just slower or it took me longer. But at the same time I always I understood everything, once I taught myself.”

Ironically, Angelina attended an elementary school that also housed the Deaf and Hard of Hearing program for her school board. Although she knew other kids with
profound hearing loss and loved her sign language club, she says “I never thought I was like that because you know, I could speak, I can hear.” When she finally mentioned her difficulties to her family physician, she was told that it is “just chemistry class, maybe you’re just not paying attention.” Interestingly, at the age of two, Angelina’s mother had taken her to a pediatrician with concerns that her daughter was not always responding appropriately. In an impromptu “hearing test” the doctor yelled out Angelina’s name and when she turned around, her mom was told “oh she just doesn’t want to listen to you, the kid is fine…she’ll grow out of it.”

Finally, at 16 years of age, Angelina was tested by an audiologist and diagnosed with mild “cookie bite” hearing loss where hearing is compromised in the mid range frequencies (i.e., audiogram visual representation appears to have “bite” taken out of the middle.) She relives her experience: “they started decreasing the volume…[and] I couldn’t see what she was saying. So that kind of freaked me out…I realized that something was wrong…it took my footing just right out from under me.” She adds that it “panicked me when I couldn’t see her lips… I never realized that that was what I was looking at.” Believed to have had her hearing loss since birth, Angelina desperately wishes that someone had caught it earlier. “Probably it would have been a lot easier on me.” Shaking her head, she remembers thinking “have I gone this entire time and no one has noticed? Someone should have seen something!”

In a somber tone, Angelina explains how her parents (both professionals) would sometimes get upset with her: “It’s not always that I didn’t want to do what they wanted
me to do. I genuinely did not hear them asking me to do that.” They would say to her
“I’ve told you once. I’ve told you a thousand times” but at times, she felt “Well, no! This
is the first time I’m hearing it.” Angelina notes that she can understand why her parents
became frustrated with her “I mean my sister has perfect hearing. So, there is no reason to
think that I didn’t either.” Thinking back she explains that after her hearing test her
parents were “shocked” and “upset” and she was advised to “just keep it on the down
low, when they find out they’ll find out.” When she eventually tried to explain her
hearing difficulties to extended family members, she recalls being brushed off and told
that it is “just like teenagers, not paying attention.” When she finally showed them her
new hearing aids “it took them a few minutes. They thought I was joking. They thought it
was an MP3 player.” She admits “I was upset when they told me I had to get hearing
aids…well it wasn’t the greatest news in the world” and as she removes and presents her
tiny devices for inspection, she rubs her ears and mutters that she is looking forward to
getting new ones soon because “these things hurt.”

Angelina knew a few students in her elementary school who were deaf but has
never known anyone with MMHL. Citing this as the reason for participating in this study,
she was curious to know more about “people who were identified early on” saying that it
“fascinates me…especially how other children cope with it.” Basically, she says “I’ve
fooled myself for 16 years. I fooled everyone around me [but] I always wondered how
students…dealt with it, if it was ever easier for them.”

**Experiences at Schools:** “It should have been very evident that there was a problem!”
Angelina believes that her difficulties at school began in Grade 2. She recalls that her classroom was open-concept and that she had a very soft-spoken teacher. One day the teacher and her mother took her to the library before school and started to tell her that she was not “paying attention in class.” Summarizing the incident she says that she was told that “I wasn’t listening to instructions and that I was falling behind. I guess now I was basically failing Grade 2…reading and writing…I felt so bad I was crying.” She remembers thinking “everyone else was doing well…why wasn’t I?” Thinking back Angelina softly confides, “I couldn’t figure out what to change…someone is telling me ‘you are doing it all wrong’ and I didn’t know how to change it, and I didn’t know what to change.” After contemplating this a moment she tosses her hands in the air: “God! I went through this many years with this many teachers and the school that was once tailored to my kind of problem! Why didn’t anyone see it?”

Perhaps Angelina’s hearing loss was overlooked because she did well in school. Believing that she is not “overly smart” she describes her experience: “I wasn’t ever in trouble or anything. It was just that the work never came easy. I guess I wasn’t getting the lesson that everyone else was getting and so I learned by myself.” She reveals that her schoolwork was mainly self-directed, and that she would “practice every day…pages and pages of practicing words…I’d write it out like 30 or 40 or 50 times because I just couldn’t understand how those letters made that sound.” She recalls that she had performance anxiety at the time which led to her “throwing up before a first grade spelling test” because as she explains, “I could not understand what they were talking
about…to this day I cannot spell. It’s embarrassing at this point.” Angelina reveals that throughout grade school and high school she knew her parents were disappointed: “I wasn’t doing as well as my sister was so I figured I always had to work a little harder.”

She did, however, excel in math and sciences believing that they were “much easier because there has to be an answer and you have to get to it.” Of these subjects Angelina felt that “if you didn’t figure it out in class you could go home and figure it out yourself.” Thinking back she explains “We always had math in the morning which was good. I was alert. I was awake. I was paying attention.” However, “it was always a lot harder during…afternoons to stay focused to keep the work going.” While chuckling she exclaims “Great, she’s great at math, that’s fantastic. She can’t do anything else though!”

After thinking back on her elementary experiences Angelina slowly confesses “it was a terrible couple of years…I had headaches and was tired…yeah, I fell asleep in almost all my classes.” She adds, “I remember just hating school back then. It was fine. I got the grades you know, but I hated it.” Angelina goes on to explain “in high school that’s when I kept getting headaches in the afternoon after 3rd and 4th period of the day. Whew! Those classes were just write-offs.” Quietly she reveals that “it’s hard when you are not where the rest of the class is, when you know you should be.”

Experiences with Teachers: “They seemed to like me.”

Looking back on her elementary and high school years Angelina describes one teacher in particular who was a favorite:
I had her for Grade 3, 4 and 6. This is probably why I went so long without realizing that anything was wrong. She would stand at the front of the class and she’d teach to the class and she was loud… you could hear her down the hallway loud. She took her time to speak… she enunciated everything, nothing was slurred together [and] she’d never be speaking into the black board.

Angelina recalls that “other teachers, [were] quiet, sitting behind their desks, writing, talking while they are writing at the board.” Summing up she says that: “one teacher taught to the board but the rest of them did a lecture style facing the front. I had good teachers in high school.”

Angelina remembers, after her hearing test, explaining her situation to teachers and peers: “Yeah I felt close to a lot of my teachers so it wasn’t asking for any kind of consideration to be made, it was just ‘hey this is what happened, this is what they found.’” She told a couple of teachers “just because I’d had them for a couple of years and I respected them. They were surprised. I remember one teacher he thought I was joking until I pulled out the hearing aid.” She did not keep her new hearing aids from her peers either: “It was a small high school and I never wore my hair down… So you can see them [hearing aids]. So people started to notice.”

Angelina continues by describing how different her experiences were with faculty members at university. She recalls her anxiety in first year, having to talk with a professor to get information: “I was nervous…. I always think that I’m going to miss
something. I was so focused on listening that I totally forgot what, who he even was, and I had to ask him again. That was a little embarrassing.”

She describes her internal dialogue at the time of meeting another professor. “I was like, I’m meeting him. I’m not going to hear him. I’m going to miss something, it’s a big auditorium, [and] he’s got an accent!” She then explains an awkward moment with a professor who approached her notetaker in class saying, “Well, why are you here? …and I was ‘No! Don’t say anything!’…and she’s like ‘I’m the notetaker’… and he’s like ‘for who?’ And this guy is a very intimidating professor, [but] they’re under confidentiality not to disclose the name.” Angelina describes her notetaker saying “‘I can’t tell you who it is!’ [and] she kind of looked at me. So, I had to go ‘Oh my god, it’s me, you know, front row center. Yeah, she’s my notetaker.’” To Angelina, “having them find out like that that kind of sucked. I didn’t really appreciate it… because I didn’t have a chance to let him know how I wanted to.”

Angelina remembers another professor in particular, because “I never mentioned anything, but he noticed the hearing aids and someone in his family was hard of hearing. He was really good about it.” Angelina adds: “He found me after class and said ‘Is the way I lecture ok? Do you need any[thing]?’ or ‘if you miss anything, just come and find me…I’ll go over it again.’ He was very accommodating. I was very surprised.” Describing her relief after this meeting she adds “Yeah that felt nice. So he knew but he never treated me, he didn’t treat me any differently.”
**Strategies to Manage Learning with MMHL:** “I found out so late and I had so many mechanisms to help me out like for 16 years.”

When considering how she managed in school before she was diagnosed with hearing loss, Angelina says proudly that she “reads lips like a champ” and that over the years she devised many “ways to cope with it.” But she also explains that her elementary and high schools were small: “Yeah I think we had 20 people in Grade 8” and while laughing, Angelina reveals that “a couple of times I missed attendances but we were such a small school we knew the order.” Providing additional details, she explains that it was also “an old school…with big windows and curtains that were never really closed. So, even with the lights off it was always very bright.” She was also really connected with people in her school: “my parents were also on top of things…everyone knew my mom which meant that everyone knew who I was.”

Throughout her school years Angelina was involved in sports: “There was a lot of whistle blowing …a lot of feedback…I would always stay to the side, closer to the coach…sort of on the sidelines…I was just watching everyone. I was trying to figure out what to do.” When playing, she explains: “I had people…I’d like sort of look at them and they’d say like ‘run’ or something. Give me that signal. I use my sister a lot.” She remembers telling a cousin on her team who knew about her hearing loss: “I need you to be the one that I hear out there, I don’t need to hear the coach…I need you to be the loudest one I hear out there.”
To cope in class Angelina explains: “my friends …we were all in the same classes so we all sat together. Yeah we’d just look over each other’s shoulders and copy the notes” and counting on her fingers she adds that she “only had 3 male teachers, but they didn’t have beards or mustaches or things so that was fine.” She also reports that she never had “any new teachers…we never had a teacher that I didn’t know beforehand” and after some thought she adds: “I can’t think of a substitute teacher in high school.” Then in a matter-of-fact tone, Angelina reveals: “I never ate lunch in high school. I was always in one teacher’s office or another…I was never afraid to ask for help” but she quickly adds: “except for one science teacher…he was intimidating. I didn’t go ask him for help. I went to my Grade 11 teacher and asked her. I did it all through grade school and all through high school…and no wonder!”

Now in her upper years of university Angelina reports that she is doing fine but that she relies heavily on notetakers, Powerpoint slides, and skeleton notes (key words or phrases are blanked out) which “has made a HUGE difference!” While nodding she continues: “I found it easier here because I’ve got what’s up there in front of me, with some of the text and I just have to pay attention to what I’m missing.” Continuing she also says: “I’ve gotten good at writing without looking. You know, looking down every so often so you are not going off the page and then going back.” However Angelina still relies on friends and the notetakers that her university provides: “I have one professor that lectures while you’re supposed to write. So one of my friends takes the notes that he is talking about and I take down the notes on the overhead.”
Angelina has encountered some difficulties with her coping strategies while at university, including complications with getting close enough to read her instructors’ lips and facial expressions. In one course she explains: “it wasn’t the first class [that] I had. So I was always in the back…I had to trek across campus…I could never get there to get the front seats.” Angelina explains that she attends lectures and does her work but “by the 4th and 5th hour of classes, I’m tired, I don’t want to listen anymore, I don’t want to write. I just want to put my head on my desk, and my glasses are always off and I’m rubbing my face. I’m like ‘keep it all going.’” She explains: “Tuesdays are always a little tougher but I generally have nice breaks in the middle. So I can always go home and take a nap.”

**Summary of Angelina: A Theoretical Perspective**

Angelina is likely typical of students with MMHL who may be undiagnosed or assumed to be fine with minimal intervention. The fact that she could “talk and hear” further “fooled everyone” into believing that her shortcomings (academic or otherwise) were due to her “not paying attention” or “not listening” to instructions, and ironically not working “hard enough.” She speaks about “always falling asleep” in her classes, an obvious signal that her classroom teachers missed and that she excelled only in the subjects (math and sciences) which were taught in the morning blocks and that she could “figure out” on her own. On the other hand, Angelina could also be said to be an atypical student with MMHL in that she was exceptionally motivated and almost entirely driving her own learning. She spent lunch hours getting one-on-one lessons or taught herself at
home and through sheer determination was a successful student. She apparently believed, as did her family and teachers, that nothing was “wrong” with her so, whatever her difficulties at school, hard work and effort on her part should prevail. Yet we must consider at what cost to her social-emotional well-being.

When we examine her experiences through the lens of SDT it becomes evident that her overall motivation for self-determined learning was possibly due to an introjected style of motivation to perform with feelings of external pressures and perhaps a fear of failure. Angelina says she hated school but “got the grades” regardless. She was driven to keep up with her capable younger sister, and to not further disappoint her parents or her teachers, whom she knew well, liked and “respected.” When considering her three psychological needs (i.e., relatedness, competence, and autonomy) it is evident that nearly all were met due to the circumstances of her elementary and high school years; almost ideal conditions for a student with MMHL to manage her learning, and to be able to “fool everyone for 16 years.”

When we consider Angelina’s sense of relatedness we find that over the years she had consistent teachers, whom she knew well, felt safe enough to go to for extra help, and who spoke directly, clearly, and even loudly to her. She also felt connected to and enjoyed her friends, which included her primary school “deaf” friends with whom she signed and who understood her clearly. She had close friends for classmates who backed her up with class material, letting her “look over shoulders” and copy notes. In going to her teachers for extra help and basically attending to her learning before, during, between,
and after classes, and through practice and homework, Angelina “figured out” her subjects on her own. She likely achieved a sense of competence in academics. However this is an area that gave her distress and anxiety as well. She was well aware that “everyone was doing well” and that she was not. Angelina had a small brightly lit school and classroom teachers who, for the most part, effectively communicated their lessons. Even though she “fell asleep” most afternoons, Angelina evidently felt that she had some autonomy or control over her learning. She was proud to report that she taught herself and “got the grades.”

Now in university her learning environment is different. She says she is isolated from others with MMHL who might share her experience, and has had some angst talking with her professors, given the possibility of “missing something” due to accents, and to not being able to sit close enough in large classes to hear or “read lips.” Although she “didn’t appreciate” being singled out as HH in class, she has a notetaker and skeleton notes to help her get the course content she needs and she has the option of taking naps on tough days. Unlike during the majority of her elementary and high school years, she now uses two hearing aids and she may not be as hard on herself because she now knows that many of her learning challenges are due to hearing loss and not to her intellectual capacity. When Angelina reflected on her learning experiences it was clear that she had lost some confidence in the educational system. She lamented that “someone should’ve seen this” and realizes that she worked exceptionally hard to learn especially compared to
her peers. She wished that school had been easier because perhaps she could have done even better.

**Introducing Nicholai**

Nicholai is an intelligent, thoughtful and perceptive 21-year-old university student. In addition to his coursework, he is an active volunteer at school and in his community. Passionate about films, he often uses scenes from movies to describe his thinking and reveals that, because they usually have subtitles, he is a big fan of foreign films. Nicholai has bilaterally severe sensorineural hearing loss and primarily identifies as deaf. He explains: “I wasn’t born deaf” but when he was a year and half old he “became deaf as a result of a flu.” In his pre-school years, Nicholai underwent CI surgery which he describes as “a very experimental procedure” at the time. He reveals that his parents (both civil servants), “always wanted me to be like everyone else, they didn’t want me to have difficulty in my social interactions, so…I think that’s when they chose that approach…to try to get me into the hearing community.” He notes that getting a CI was a very stressful decision for his parents because they knew of other children who had undergone the procedure: “it didn’t work for them, but somehow it worked for me.”

Although he was born deaf, his parents chose not to teach Nicholai American Sign Language (ASL) even though they were learning it themselves. They “wanted me to focus on my speech…that’s why I went to a speech therapist.” With a chuckle Nicholai adds: “it’s funny because my parents learned sign language because they thought if the CI didn’t work for me, they would be signing to me.” Continuing with this subject, Nicholai
explains: “My parents always try to be self-sufficient and they always tried to encourage me to be the same...that’s why the cochlear implant. So I’d be able to hear almost as good as anybody else.” Eventually though, Nicholai did become proficient in ASL: “I suppose it was a rebellious act perhaps but... I learned it myself.”

When asked why he chose to participate in a study aimed at students with MMHL, Nicholai considers the question carefully and explains that even though he is deaf, he uses his CI every day and when doing so he identifies as moderately HH. He then adds: “I wanted other people to learn from this experience and not be ashamed of who they are.” After a big sigh he says softly: “I should go on the record here to say that I am both deaf and gay. So um it’s very interesting because I’ve had to come out twice.”

When asked what community he primarily identifies with, Nicholai thinks a moment, and then with conviction indicates that he certainly does not feel like he is a member of Deaf Culture, but that he also does not necessarily feel like he is a member of hearing culture either.

Experiences at Schools: “I was often exhausted.”

Overall Nicholai says: “I loved school because I just loved learning. Because I know there is a way to be myself.” However he continues by explaining that shame is linked to many of his educational experiences: “My shame was not because I was shy or because I was nervous. My shame was because there was a tendency for the teachers and the administration and the educational assistants to just smother you with everything.”
He begins by sharing a story about how his first teacher took an interest in his CI: “he managed to give a presentation about it in the first class. I think it made it cool because I ended up befriending everyone in my kindergarten class...with the exception of a bully.” Nicholai then reveals that even with his enthusiasm for learning, he was soon having difficulties: “I was a bit of a trouble maker…I got into trouble a few times because I was always trying to get the attention from my classmates.” Thinking back he recalls: “Grade 6 was an interesting year because I didn’t like my teacher very much at that point.”

By high school, Nicholai wished that he had more independence from his teachers and educational assistants (EA). He remembers one EA who was told to monitor him closely: “I wasn’t allowed to leave him. He’d get into trouble if I went off by myself to try to hang out with my friends on my own…a bit more hands on than I would have liked…he certainly smothered me!” Nicholai divulges: “There were times when I just wanted to be on my own and make my own mistakes. And then I would go home and my parents would smother me too, to some extent. So it was hard to feel independent.” He describes his response at the time: “I became involved in things that neither my parents nor my educational assistant were involved in [such as] the school play and some of the other clubs that were held after my assistant was off.”

After considering his hearing loss at school, Nicholai asserts: “It didn’t stop me from doing things after school. I just couldn’t focus on learning…I had calculus and physics in the last two periods of the day and I did poorly on both.” Continuing on the subject of math he explains how he hated it because teachers would face the blackboard
while explaining calculations: “I’ve missed that…how did we just get from the X to the X squared? And it’s always bothering me for the rest of the class.” Nicholai believes that these early experiences shaped his future choice of studies: “that is why I’m an English major… I wanted to understand all the parts of the story.”

Describing other school experiences Nicholai continues: “On hot days they would turn off the lights [and] I hated that. And I also hated asking for them to turn them on because I knew everyone would complain about how hot they were.” He remembers thinking: “Do I really need it? Can I survive? Can I get through this? Yes I can. So I won’t…disrupt the other students and I’ll just suffer in silence.” When asked if he tried to explain his frustration to his teachers, he admits that he did not. After a moment he adds: “But when you’re tired you don’t feel like standing up for yourself so much. You’re just like, ‘Go on with it…let’s get this damn thing over with.’” He explains further: “I often found myself exhausted at the end of the day which meant that my last class was always the one that was impacted.” Nicholai then recalls a day when his class was having a debate and the power went off and, laughing, he explains that his teacher insisted that they continue with the debate: “so I had prepared this argument and I gave my argument [and] apparently I won the debate but I had no idea what anybody else had said.”

Shaking his head, Nicholai remembers constant fussing with his CI and with his school supplied FM system that continually broke down. He recalls a day when he was embarrassed in the auditorium in front of his whole school: “They’d be like ‘Nicholai,
I’m going to say a number from one to ten. I want you to tell me what that number is.”

Clearly exasperated he explains:

   Just because I don’t hear them doesn’t mean there is a problem. I could not be paying attention. I miss one out of ten words...So even if I don’t get that word or if I don’t get your stupid number, and he’d always pick that number, it was easy enough that you could just bluff your way through it. You didn’t even need to hear that number, just maddening.

   When asked if he ever explained his situation to teachers at his school, again Nicholai replies that he did not because “I’ve got my educational assistant and they usually do that.” While continuing he leans forward: “That’s what I am trying to tell you is that I never had to self-advocate for myself until I was at university, alone...in some ways, things were done for you and you couldn’t really question the ways things were.”

He tries to clarify his frustration:

   I had everything taken care of for me. I didn’t feel like it was taken care of for me in a way that I appreciated...you don’t have the heart to tell them that it didn’t work. All the modifications and alterations...the little things that they tried to do, even when you didn’t want them...you don’t appreciate them in the way they want you to appreciate them.

   While describing his difficult transition to university Nicholai says he was worse off because he was never permitted to be independent at school. In university he “had to learn to be an advocate” for himself and that he “wasn’t really prepared to do that...I had
a really bad time.” He shares a story of awkward moments during his first year orientation assembly where one seat per row on the aisle was reserved as preferential seating: “They put me in the back row…I was like ‘OK I’m not going to get anything from this’ so I fell asleep.” Looking embarrassed he continues: “I came to later, and I realized, ‘well you just screwed yourself over.’ I had that thought with me for a while.”

However university also had some unexpected benefits. “Well, I never have normal friendships [and] I really didn’t want to stand out too much. I was afraid that I wouldn’t make friends you see?” His expectation was that he would be bullied: “I was expecting that I would be made fun of, I was expecting that I would be tormented to no end.” Yet he was pleasantly surprised that for the most part, classmates at university were supportive and he discovered to his delight that “everyone was a potential friend of mine.”

**Experiences with Teachers:** “*Probably every teacher I’ve had has been some kind of puzzle that I’ve had to solve.*”

Having no shortage of stories to tell about his experiences with teachers, Nicholai begins by explaining that due to his hearing loss, he was not required to take French. He had to work on his English instead, and usually alone. When the other kids were in French class he says his Grade 4 teacher “went to such trouble to make a book for me, a workbook of stuff that I could work on, and I worked on that in his room while the others were away.” Nicholai continues to describe this teacher’s efforts to help him: “He’d put a chart of stuff to do up on the board. He’d play the guitar too …and he’d try to entertain
me.” He reminisces that his teacher “thought about me a lot because…he was continually checking up on me.” While nodding he adds: “There were lots of teachers like that. And there were some teachers that were a bit impatient with you” as well.

He contends that his biggest issue with his teachers was when “you asked for help…they really would draw attention to you.” Nicholai then tells about a defining moment in his Grade 6 class when there were two ‘Nicks’ in his class. He remembers his teacher coming to them and saying: “Well I can’t call you both Nick so I want you to decide which one of you should be…called Nick.” Nicholai convinced his classmate to allow him to be the one to be called Nick “because the name Nick was cool.” Soon however, his teacher came back to him saying: “Oh I made a mistake, you’re deaf and so we can’t call you Nick….you [need] more time to respond to me calling your name.” Nicholai scoffs while explaining his teacher’s rationale: “apparently the longer my name was, he could get my attention with it...so I was called Nicholai!” Summing up his story he remarks: “our decision making process was not relevant to the decision that [the teacher] had already made.”

Nicholai believes that his frustration over this episode created hostility which led him to carelessly breaking one of this teacher’s model toys. When he “found out it was me, I was sent to the principal’s office.” While there he wrote a note against his teacher that “was trite and mean spirited too” but he never delivered it and instead threw it away. However, as Nicholai explains, his EA at the time “rummaged through the garbage to find it” and unfortunately “showed the note to my teacher and I was sent home.”
When asked about substitute teachers, Nicholai claims that he never told them about his hearing loss: “I think it’s just because they’re not accessible…they’re only there for a day, then they’re gone.” He then laughs: “Imagine standing in front of the class and telling the substitute teacher everything about you. Forget it. So you are just stuck for the entire class and [it feels] like you just have to try harder.”

According to Nicholai, “some teachers would make accommodations and other teachers wouldn’t.” He explains his difficulty with his high school drama teachers. One “would sit in his swivel chair at the centre of the stage…he would constantly rotate so that he would address everyone equally or so he thought.” Nicholai says that this teacher “often had a sarcastic attitude and…he would actually yell at you if you asked for help…he’d be like “Oh what? Should I help you now?” He notes that his other drama teacher had “an Australian accent and I wouldn’t really understand.” He also recalls that his “helper” at the time was “a little bit out there…even sneaking in cigarettes into the classroom. So I would try to deal with him. It’s hard to explain, but…trying to ask him to tell me what she had said…it was hard.”

Changing his tone Nicholai excitedly describes one of his current professors: “I’m taking drama this year and it’s surprising because he’s the best professor I’ve ever had in terms of accessibility.” Unfortunately his drama department does not subtitle their films but this professor sat him down and said “Well we’re going to screen some films in drama class and I will do my best to have transcription or I’ll have them transcribed for you.” Nicholai goes into detail to describe his professor:
He would always make sure he’d have the lights on before he’d start talking and he would always ask me if I could understand what he was saying and he’d always send me these slides and notes. He does it effortlessly…it’s like it’s second nature to him…it’s just like a head nod or sometimes he’s just looking at you when he’s talking and then he knows that you are paying attention to what it is he’s doing.

Nicholai reveals: “I liked him so much that I am taking a second class with him because seriously I haven’t felt so accommodated for a while. This just blew my mind. I should have had this guy in my first year.”

Nicholai then describes another first year professor: “Every time I would put my hand up she would ignore me and or call on the girl next to me or the girl behind me. I would think she was talking to me but she wasn’t.” He describes how when this would happen this professor would look at him and tell the class “Men like to have all the attention don’t they?” When he went to her to ask for help, she would often refuse and say “it is not in my capacity to do it and I can’t favour you [over] the other students.” Although he says he “stuck it until the very end” he remembers when his mother found out his experiences in this class. She “started to cry and said ‘if you had told me this sooner we would have gotten you into another class.’”

In a second year course, Nicholai’s assignment was to write an essay about a form of deviance to explain how a smaller culture brings attention to their issues within a larger culture. He chose to write his essay on Deaf culture. His professor resisted his
choice, telling him, “why don’t you do skateboarding or smoking?” Although this professor eventually relented, he warned Nicholai: “I don’t know anything about Deaf Culture…so I might take it out on you.” Nicholai explains that after internalizing these negative experiences he eventually decided: “I didn’t want people taking advantage of me…I would, I would have to learn to be my own self-advocate.”

**Strategies to Manage Learning with MMHL:** “You are always trying to make sense of what’s going on around you.”

Explaining how he coped in school Nicholai says that he was “always looking around and paying attention to things.” He reveals that his “parents always had those expectations that I would not do very well in social situations. So they always thought I was having a hard time of it at school. But I wasn’t.” He describes how he dealt with a bully in elementary school: “All I would have to do is stand and yell to my classmates and we would fight him off, we would scream.”

When asked what he would do when he missed lesson content in class Nicholai replies: “It depends on whether or not I thought it was important...It’s hard sometimes, you don’t want to waste their time.” He continues in a serious tone: “I would always sacrifice myself for the greater good. It became some kind of constant struggle between good and evil.” He then finally admits, “there were other times when I was so frustrated because I wasn’t getting it and so I would ask for clarification or something.” Explaining how he manages at university he talks about his friends: “I could hire assistants, I have control over that. So...that just led me to being able to ask my friends for assistance. And
it even turned out that some of my friends could be my interveners.” Smiling he says he now has: “several close friends…that I can trust to relay information to me.”

One difficulty Nicholai has at school is with Powerpoint presentations: “You can’t really lipread them and the people can’t really see the Powerpoint if the lights are on. So um it’s this strange battle between both of those things.” When asked if he prefers to watch his professor speaking or the screen, he replies without hesitation, “I look at the professor” rather than at the slide. He also comments on class sizes explaining that he intentionally takes courses with fewer students: “I took some classes in the summer because I knew that they’d be easier [with fewer] students in them.” While grinning he exclaims: “I have a class right now with 14 people. That’s very good!”

After some consideration Nicholai reveals that he finds socializing with school friends difficult: “sometimes when I’m too tired to follow what people are saying…instead of just staring…I bring a book or I bring the Gameboy or…something that I can keep myself occupied.” He does not feel that he “drops out” but admits he is not necessarily a hundred per cent there either: “I’m still interested in being with them. So if they asked…I would tell them.” While thinking the matter through Nicholai continues: “I want to understand [them] but…some of the friends that I do that with, they understand the way I am. Because I tell them more or less…we try to conserve my energy.” He explains that he will tell his friends that “we’ll still go out a bit later on but right now I just have to relax for a bit.” In general he confesses “conversations kind of put me on edge. So they have to realize, there’ll be no talking with me and be patient.”
Summary of Nicholai: A Theoretical Perspective

Nicholai has had a truly mixed experiences at school due possibly to his dual experience of being both deaf and moderately HH. During his early school years, given his status as a deaf student, he was provided with a number of classroom accommodations and modifications. He also had an EA or “helper” with him constantly. He learned to defer his independence to these EAs over time and ultimately grew to resent them. When we examine the case of Nicholai through the lens of SDT we see that many of his psychological needs were either not met or were met in conflicted ways. In terms of meeting his need for relatedness, Nicholai felt close to his teacher who “made him a special book” and who evidently expressed care for him and he believes that his Kindergarten teacher’s presentation on his CI helped to make him “cool” to his peers. He trusted classmates to help him deal with a school bully but he was always trying to “get attention” from them as well which led to problems. Nicholai also felt betrayed by the actions of other teachers and by his EAs. Overall he described compromised relationships with educators in high school who were insensitive or overbearing. Nicholai expressed that throughout school he was “helped” by his educators in ways that he did not “appreciate.” It is not evident that his sense of relatedness was being met until he speaks of his university drama teacher.

Nicholai had parents who assumed that he “wouldn’t be like everyone else” and that he would be socially incompetent because of his hearing loss. He was not permitted to learn sign language which could have provided an earlier way for him to express
himself more easily and to understand those around him. Nicholai explained how he was taught with the lights out and that he would often just “wait out” his classes. He says that he became an English major because he desperately wanted to know “the whole story” that he felt he was missing in classes. Nicholai also did not want “to waste” his teachers’ time and that he would sacrifice his own learning needs for the “greater good.” He still finds socializing with friends at school difficult and admitted that conversations with them put him “on edge.”

Nicholai spoke often of his shame and his frustration due to being singled out as “different” because of his assistive technology and his constant companions, his EAs. Clearly these conditions enhanced his difficulty “with social interactions” and with his sense of competence. Interestingly he described telling people about his hearing loss as having to “come out” in similar ways to revealing his sexuality. He admitted to feeling like he is not a member of the predominately hearing community at his schools. It is possible that Nicholai has been driven by an introjected style of motivation where he felt externally pressured to do well to prove others wrong about his capabilities and to appease his own self-esteem.

Nicholai’s parents expected him to be self-sufficient at school but he feels he was smothered. Nicholai expressed how he was not permitted to make his “own mistakes” or to “hang out” with his peers resulting in dependence and a restricted sense of autonomy. He believed that this experience ultimately adversely affected him in university. Eventually Nicholai took charge in small ways during high school by joining activities
where neither his parents nor his EAs could participate. Due to his fatigue and his teacher “talking to the board” he was not able to learn subjects such as math. He often fell asleep in the afternoons, which he said affected his learning during the last classes of the day when he was too tired to “focus on learning.” When asked if he would tell his teachers of his difficulty he explained that at the time he assumed that is EA would take care of it. He felt that he “couldn’t really question the way things were done” for him or change his situation at school.

In university Nicholai had both positive and negative experiences in terms of meeting his psychological needs. One professor took time to connect with him, made him feel worthy of extra attention (by transcribing videos), and helped him in class with a subtle “nod” or “a look.” Other professors said that he could not be “favoured” over other students and resisted his choices. Due to a lack of effort on their part they also did not have “the capacity” to help him and would “hold it against him” when he attempted to do his work. It was in university, however, that Nicholai found that everyone was a “potential friend” and he now has “close friends” that he “trusts” to help him. He can use these friends to assist him as interveners in class to help him get class material and to participate in class discussions. He may still being using “helpers” or unofficial EAs but they are of his own choosing. He is also able to choose smaller classes better suited to his learning, communication, and social-emotional needs. Nicholai said he believed that he has found more independence now and that he has finally begun to learn how to self-advocate.
Introducing Brooke

Brooke is a clever, articulate, and outspoken 18-year-old high school student with an ironic sense of humour. She was diagnosed at age three with bilateral moderate to severe congenital hearing loss. Her parents are professionals and both her father and her brother also have hearing loss. Other than her brother who has now graduated, she does not know anyone else at her school with hearing loss: “I am the only hard of hearing person in my high school as far as I know, and that means I’m one out of twelve hundred people.” Brooke is an active volunteer at school: “I am on student council...I get involved in a lot of fundraising stuff at school. I have my own…charity club.” Later she admits however, that many people in her activities have not been told about her hearing loss.

Pointing to her two hearing aids which she wears from morning to night, Brooke explains that she only occasionally uses an FM system at school. Later she divulges that she actually has not used it “much over the last four years.” Now in her fourth year of high school, Brooke often wishes that people better understood what it is like to have hearing loss and that her teachers would do something different in class to make it easier for her to learn. She finds listening “exhausting” and feels that she is often more tired than her typical hearing peers. Brooke adds that she has had some issues with anxiety saying: “I am not ashamed to say that!” With a chuckle she adds: “and I think some of it of course stems from the hearing loss, if that is what you’re gonna ask!”

When informed that this study may help educate regular classroom teachers about students with MMHL, her intense response is immediate:
Good! That so needs to happen! Because I know that the last 12 years have been very very frustrating and it would be nice if someone could do something about it, because sometimes you feel like you are fighting it alone and it’s nice to know that you are not. 

After some thought she continues “I am hoping by doing this that I am contributing to a larger effort…Yeah and this is my way I guess, of advocating for myself and for other people.”

**Experiences at Schools:** “I think I didn’t realize that I could say ‘No! I can’t do it!’”

Brooke’s elementary years were spent with “250 kids, so that is pretty small” and she notes that back then being HH was a bit of a novelty. She recalls classmates helping her out: “in Grade 2 people would want to charge my FM for me…I was proud that I got to sit in the front you know? I loved wearing the FM system.” Now that she is older she says “I have pride. I mean I don’t hide the hearing aids. I wear my hair up every single day. I guess I’ve been fighting for so long I just want to fade into the background a little more now.” Brooke then concedes that school has been challenging: “I am not the brightest student. Like, I have to work really hard for my grades…I was slow. I was a slow reader.”

After reflecting on her early educational experiences, Brooke shares a story of when she made a presentation in another student’s science class on “sound and light” to talk about being HH: “That was really cool because of the power of being in front of everyone was really great, that is positive attention, and I’ve been constantly asking for
that too, so that was really cool.” Brooke explains how in “a 10-year-olds’ way of explaining about hearing loss” she used a meter to show the levels of hearing loss: “the average is like in the middle and I am down here you know.” Brooke thinks that her early school circumstances have ultimately shaped her for the better: “I’ve had to work hard and I know how to put in the effort, just studying, all the extra help.” She describes how her father told her that she was “going to be the one who excels in university because you know what it is like to work hard.”

A constant frustration for Brooke at school has been the use of video or movies in class: “if we watched movies in elementary school they were for fun…they weren’t really part of my learning process and [in] junior high and high school they were.” She remembers talking to the school guidance counsellor about it but with a shrug she says: “I don’t think that anything really happened.” Exclaiming that “it is not fair,” Brooke explains that captioning is rarely available or turned on and that without it she really does not hear or understand the content: “in high school a lot of this stuff ends up on your test. It is part of learning it is part of the lesson.” Currently her class is studying the play Hamlet and her teacher will show a scene of the play pause the video, then talk: “He is teaching…and the lights are still off. I’m like I can’t, that is not fair! I’m already struggling when the lights are on and then you turn the lights off. What do you expect me to do?”

In other classes Brooke says there were challenges as well: “French is hard because you have to do these listening activities with a recorder or whatever, and I can’t
do them.” Because she was “friends with no one” in this class Brooke felt a bit lost: “these listening activities are horrible, like they are hard even for hearing people.” However, Brooke explains that in this class her teacher “who was great” said to her “OK we’ll just do a one-on-one interview instead.” Brooke reveals that over three years of high school French, she never had to do another listening activity: “somehow they just moved the grades around!” Brooke is more dismissive when explaining her experiences in gym classes: “you were playing games and you didn’t really need to hear. You need to hear the first instructions and you are usually with a partner practicing…it didn’t matter.” Continuing she says, “yes, I missed out a lot on the instructions and I would have to be asking people ‘Oh what is going on?’ [Eventually]…I just sat at the front anyway. It was fine. I am done with gym.”

Brooke is also pleased to be done with junior high because in high school she feels she has more autonomy in some areas. Happily she says that she can now “eat wherever you want, it is great” because “the cafeteria is noisy, it is not a fun place to be and it is too busy.” However she finds the noise in such a large high school a bit overwhelming: “It is bad. You have like hundreds of students walking down the hallways and they’re all talking.” With exasperation she explains: “at the end of the day, I am counting down the minutes, especially in English class because I am just sitting there listening. Not fun work…if I just have to listen and take notes it is not fun.” Brooke adds: there is always a class discussion going on, and it is important that you write down what you hear…it is going to be covered on the test but I can’t, it is really...
difficult for me cause I can’t hear it at all…after a while I am like, ‘just forget it.’

It takes too much energy. Like trying to hear is like it’s horrible.

When asked if she bluffs with teachers and classmates or pretends to hear at school she laughs: “Oh! I do that a lot. It is the worst. I know I do it,” but explains that she will often ask a classmate: “What are we talking about now?” and that “usually there is always that one person that I am comfortable with, that I can ask.”

Brooke finds in high school that “a lot of teachers don’t write things on the board.” She finds her English class stressful and describes it as her “toughest class.” Even sitting in the front row can be problematic because her teacher continually walks around the classroom: “I am going to get whiplash, like really. But I don’t have a right to say ‘stand in one spot!’” She rolls her eyes and says that this teacher “is talking, talking, talking, and he asks you to take notes.” She knows that in high school and in university next year that “they are not going to write everything down” but she remains confident that in university she will not have as much difficulty: “I will just listen to the lecture and have someone else take notes.” With sincerity she admits that she is really lucky because “other people don’t have that luxury” but adds that she is just not able to listen and take notes: “I can’t because I can’t look down and write and hear at the same time.”

Brooke is planning to start a university program in Education next year and says “I have a really hard time even…imagining what to do about the hearing loss…I think I will have to tell every professor that I am hard of hearing.” Optimistically she explains that she has “only applied to small schools so the classes are smaller maybe like high
school classes [and] I will have a notetaker for every class.” Yet while discussing her career aspirations she suddenly blurts out “I think it is scary…a lone teacher in class with 25 students. How am I going to deal with that? In terms of the hearing loss, it is just like an extra challenge.” Thinking it through, Brooke figures she will just have to tell her students on the first day of school about her hearing loss. She speculates that she will have to explain her situation by telling her students, “‘I am here to help you and you need to help me too.’ Well what else can I do? Well, I am planning to do elementary school so you can only hope that they think it is cool.”

**Experiences with Teachers:** “A lot of teachers forget that I need to be able to see them.”

Brooke finds that one of the hardest parts of managing her learning is “just being able to hear everything.” She returns to the issue of videos without captioning: “I don’t want to have to keep going up to him and saying ‘can you please put the subtitles on? Can you please put the subtitles on?’” She says that she has asked her teachers to help her before “but this teacher, I am a little intimidated by him…I don’t want to have to keep repeating myself.” She figures if she has told a teacher “‘I’m hard of hearing...put [the] subtitles on’, once, would you understand that you need to do it again?” but as she explains many of her teachers “just don’t get it.” She then concedes that teachers have hundreds of students so that she cannot really blame them “but you know I’ve been living through this same thing for the last few years and I am at a point now where I’m just like ‘OK I can’t do it’ blah!”

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Describing her experiences in another class, Brooke recalls telling her teacher after that she thought an assigned project would be too difficult. She told her teacher: “I am not doing the phone interview, I can’t.” The result was that she had to do two in-person interviews instead. Although she says she was fine with this arrangement she takes a deep breath and explains her disappointment in her teacher: “She didn’t automatically jump in and offer something. I was the one who had to say ‘well I can’t do this.’ So that was kind of annoying.”

In other classes Brooke says she has teachers who are “really really great about it” and provides an example of a teacher who “took an hour like on a Friday and…she sat with me...she would pause [the video] and say ‘well this is what they just talked about’…she’ll take the time and she will help me.” In a second example Brooke describes a Grade 10 English teacher while smiling:

She would always make sure that I would hear things. She would come over to me and go ‘here is what I will be talking about’… she told me in advance. So that was really great. I didn’t have to go to her, she came to me first. Like that was really nice of her.

Brooke then adds that she will always remember this teacher “because she was so great about the hearing loss, amazing!” Summing up these experiences she describes how “these two teachers were similar. They kind of know generally what I need before I say anything.” Brooke explains that this teacher in particular “knows firsthand what it is like to deal with the struggle” because she has a disabled child: “she understands. If I needed
something I would tell her.” Becoming serious Brooke describes how she views her learning at school: “You know, teachers don’t tailor their assignments for me, they do what the class needs. And you know what? If something has to change, like if I can’t do it? Well then they need to respect me.”

**Strategies to Manage Learning with MMHL:** “*It always feels like I am always the one who has to educate everyone.*”

Brooke uses words like fight and struggle to describe how she manages her hearing loss at school. She explains that when she was younger: “it was my mom fighting my battles for me you know what I mean?” Now she feels like she has to do it “all alone.” Brooke considers this for a moment then adds:

With school I would say it is a struggle but I am doing OK. My whole life I’ve had to work my butt off to do well in school…some people just have to work. It is tiring, but I am going to come out on top because of it because I know what it is like to work hard.

Describing her various survival tactics, including having notetakers and asking for extra help, Brooke explains that being able to see her teachers’ faces while they are talking is her number one coping strategy: “It has just become such a big part of my life and if I wasn’t lip reading, I know I couldn’t function. I could not function.” She continues that she is fine “if I don’t have to look at the back of someone’s head.” Otherwise, Brooke will ask a classmate to help her: “I am constantly asking someone else what someone just said… [it] is really annoying but you do what you have to do.”

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Brooke reveals that she also has a classmate taking notes for her in English class who writes on carbon paper. “So, that is OK, I am allowed to give up” listening and she feels comfortable asking this student for help: “I know her notes are going to be amazing, which is good for me.” Continuing she explains: “today I got about…a quarter page of notes and she had like a page and half. Her notes are supposed to supplement mine, but I’d say they go a longer way than that.” While claiming that she does work hard to keep up Brooke admits: “if I can’t hear it…I guess I just tune it out. And I feel bad because this girl is doing these notes for me and the least I should do is try and work.”

When asked if she had a special education or itinerant teacher, Brooke explains that she has had the same person since Grade 2: “I haven’t really talked to her much in the last few years…I don’t really need her any more exactly.” When asked if she asks her teachers for extra help Brooke hesitates: “It depends on the person. I went for extra help like almost every day in junior high but teachers are more accessible in junior high than now. I don’t know why.” She describes how usually there is “someone who I am comfortable enough with, that I can say ‘Oh I missed that can you tell me what it is?” After a moment she adds: “If it is really really important then I will go to the teacher.”

When asked if she interrupts the class to ask for something to be repeated, Brooke replies: “Never! Well it depends on the teacher” but she believes her anxiety plays a big role in this matter: “I’m so worried I am not hearing it. ‘What if this is on the test?’ So, I will go to the teacher about it but if it is just a stupid class discussion then I’m just like ‘whatever.” In making her point she concludes: “if I am really comfortable with the
teacher then I’ll ask and, if not, I will ask the person next to me and that is OK, not perfect.” Finally she adds: “I just don’t want to bring attention to myself. I used to, like when I was younger, I didn’t care.”

Thinking over all her other courses Brooke concedes: “I’ve been really lucky in math class, everything is written out… there is no hearing [and] usually I have someone that I can um ask [and]…the teachers are usually really good.” About managing other listening situations at school, Brooke explains that her junior high school and gym were small: “I don’t really remember struggling. I think now in high school I kind of sit on the edge…there were times when I needed to go sit in the front.” Again she qualifies her behaviour: “if I know that it is really important, then I will make sure I can hear but if not, then whatever.” As she describes background noise in classrooms, especially during group work, Brooke explains: “you can’t hear the teacher if everyone else is talking. Yeah that is really hard. So a lot of the time I ask to go out in the hall where it is quieter.”

**Summary of Brooke: A Theoretical Perspective**

Brooke has had contrasting experiences throughout her education. In her early school years she and her hearing loss were “a novelty” and she was “proud” of her assistive devices. She says she was not a strong student but that she had to “work hard” which she feels has provided her with determination and “fight” to meet the learning challenges ahead. Now in high school however she just wants to “fade into the background.” Brooke explains that she feels “alone” without anyone who can relate to her in her school of “1200 students” and says that she is exhausted and tired of the
“struggle” to educate her teachers about her communication needs. She also dislikes having to repeatedly go to her teachers to say that “she can’t do it.”

When examining Brooke’s educational experiences through the lens of SDT we find that her psychological needs have at times been compromised. Brooke advises that she will ask for help when she needs it but only if she feels “comfortable” with her teachers or her peers. At times she has had “great” people in her educational environment who have met her criteria for “comfort” and whom she has “appreciated” for taking time to help her. She feels connected to these teachers and peers because they understand her struggles, and perhaps because they too have had challenges. At other times Brooke has felt misunderstood and alone. She has had teachers whom she avoids because she is “intimidated” and explains that with some other teachers she has given up “the fight” because they just “don’t get it.”

It is evident that in many classrooms Brooke misses instructions (e.g., gym) and lesson content (e.g., class discussions, non-captioned videos), and she said that she feels “overwhelmed” in her large noisy school. Brooke believes that learning does not come “easily” to her and often she just gives up “fighting” to both “listen and take notes.” However Brooke has, in at least a few courses, classmates she trusts to take good notes and to ask for clarification. She has also had “great” teachers who will sit down with her and explain lessons she has missed. Brooke has done well in math and she believes that this is because lessons are written on the board and “no hearing” is required.
Brooke is also capable of telling her teachers when she just “can’t do it” and has had positive responses when doing so. Likely Brooke has a more realistic sense of her limitations and abilities and feels less pressure to perform given the support and understanding she receives from her HH family members. Her father acknowledges her “hard work” and has convinced her that it will serve her well in her university years. Possibly she has an *integrated* motivation style and is “OK” with her limitations. Yet, she also expresses that at school she still has anxiety about missing “important” stuff in class and with being unsure about whether or not she will be capable in her chosen profession as a teacher, because of her hearing loss. She admitted that she often cannot keep up with “stupid” classroom discussions.

Brooke returns often to her sense of having to “fight” for herself and at times, she feels that it takes too much “energy” for her to get what she needs from her teachers to feel autonomous in her learning. She provided examples of asking for help (e.g., subtitles, seeing teachers’ faces) but not necessarily getting it in a way that does not require additional “effort” on her part or an admission of incapability or inferiority. She recounts experiences with teachers who teach in the dark, or to “the board,” and who walk around the classroom as she attempts to read their lips. She reports “tuning out” during lessons when nothing is written down and when she cannot hear due to background noise. Like Nicholai, she often decides what is “important or not” to listen to during classes. On the other hand Brooke is looking forward to university. She has chosen to apply to small schools and she knows she will have the “luxury” of a notetaker. She plans to tell her
professors, close friends, and her future “students” about her hearing loss, which she hopes will once again be seen as cool.

Chapter Summary

This chapter provided descriptive accounts of the lived experiences of three students with MMHL at school, with their educators, and how they manage their hearing loss in the school context. A summary of each case analyzed through the lens of SDT indicated that having their three psychological needs met in the classroom has been inconsistent and at times this has been detrimental to their self-determined learning and social-emotional well-being.
Chapter 5

Emergent Patterns and Themes

This chapter reports findings in three major sections, one for each pattern arising from participant data that expresses how these students conceptualize their MMHL.

Within the first pattern Understanding Hearing Loss, three themes emerged (Explaining Hearing Loss, Frustrations, and Assistive Devices). The second pattern Identity and Disability included three themes as well (Self-identity, Stereotypes and Attitudes, and Difference and Shame). In the final pattern Advice for Educators, two themes emerged (Practical Considerations and Empathy).

**Understanding Hearing Loss**

“Students, teachers, administration, like a lot of people don’t know what hearing loss is and a lot of people don’t know how to treat someone with hearing loss” Brooke

The first pattern to emerge from the data was Understanding Hearing Loss. The themes within this pattern highlight issues and concerns unique to being a student with MMHL. Each participant expressed a desire for their classroom teachers and others to better understand the lived experience of students with MMHL and the realities of managing communication and assistive devices.

**Explaining Hearing Loss:** “It’s a constant struggle” Nicholai

The three participants spoke to their efforts to describe the reality of their MMHL to their family, friends, and teachers. Angelina, with mild hearing loss explains: “Oh my
god, it feels like, your ears are full of water or something” and that sound “is just floating out there.” Her efforts to understand speech were explained as a process by which she takes the sounds that “she hears” and “sticks them all together” to come up with something: “I can see it like a puzzle, like mashing it all together, flinging at each other. It is what you get out of it. And whether or not that was what was actually said…that is what you get out of it.” She continues by saying she never gets it all: “I figure one piece of the whole is alright.” Nicholai, who has moderate hearing loss with his CI, expands on the puzzle analogy: “You don’t hear everything so you are always trying to fill in the pieces.” And how these students manage to fit these puzzles together to understand speech, as Angelina explained, is dependent on a number of conditions: “To get the full picture…you need to be able to hear what’s going on, to be able to see what’s going on, to know what context you’re in, to know where you are and what the conversation is about.” She then described how she manages understanding speech: “I’ll almost turn the hearing off and just read the lips but then when I miss something my hearing comes back on… almost selective hearing…but not in the way my mother thought I was doing it.”

The subject of needing to be close to a speaker to read lips and body language arises often throughout the data. However, even though these students expound on their abilities to read lips they recognize the limitations of this coping strategy. Brooke, with moderate to severe hearing loss tells her teachers: “The best way for me to understand you is to be able to see you at all times…because I lip read… [but] it doesn’t end at that!” She wanted teachers to know that preferential seating also has shortcomings: “If I can’t
hear it and if I can’t see you, then being in the front means nothing.” Nicholai explained how his teachers and peers always ask “if they can test my lip reading skills and before they go on too long… I say ‘yes go ahead test my lip reading skills.’” Angelina described how when people “call me from in front and if I’m not wearing my glasses. It doesn’t register that you are talking to me.”

The concepts of hearing speech and understanding speech were expressed as two different functions. Brooke said “Yup. I hear what the teacher is saying but I don’t always understand what the teacher is saying… like I don’t always absorb it.” Participants’ attention is continually focused on the speaker in an effort to understand speech. Angelina admitted that with teachers and classmates: “I’m always watching what they’re saying… I will be staring at them. Sometimes I’m so focused on what people are saying that I don’t even hear it.” She disclosed: “I’ve been told I’m a little bit more intense but that’s just because I’m trying not to miss anything.” As Brooke explained, “I never know if I am going to be able to hear or when I am not… everyone knows what is going on except you. It is not fun.”

Frustrations: “You have to constantly remind the teachers about what you need.” Brooke

Even though these students try to make people understand what hearing loss is like there remained a general belief that “unless you have it… unless you deal with it on a regular basis you really don’t understand it.” Angelina said that her teachers and peers “don’t understand. But I understand… they all have perfect hearing.” Frustration and annoyance are words that arise often in the findings to describe participants’ management
of MMHL at school. Angelina has advised classmates to “close or pinch your ears back, try speaking and try hearing…try doing that all day. Tell me if you are catching everything.” At times, their degree of agitation about communication and being misunderstood runs high. Brooke exclaimed: “I don’t want to have to keep reminding people like over and over [and]…have to deal with that frustration on a daily basis” but she understands that communication break-down is inevitable: “it is frustrating for me and for them…hearing people have problems hearing…too but for me it is a hundred times worse.” She added “every second that someone is talking I have to struggle to hear it.” She describes how she feels when she misunderstands speech: “I can’t keep up while they can. It is kind of like being in a group of friends and being excluded.” Angelina described how her peers misunderstand her: “everyone’s always thinking there is something wrong. And I keep telling them ‘no it’s just that I can’t always hear what you’re saying. I just have to listen more carefully than you guys do, it’s harder for me’…They don’t get it.”

Frustration associated with being “left out,” with having to deal with background noise, and with teachers who “talk to the board” or teach in the dark was commonly expressed in the findings. Brooke articulated her agitation with being told “never mind” or “don’t worry about it” when she misses speech and asks for clarification: “If you are going to say never mind why did you say it in the first place? Why can’t you just repeat it? I get really really pissed off…I guess they don’t want to make the effort.” Nicholai
expressed how he deals with this problem: “There is always something like that… I just dumb down to get him to repeat.”

The tendency to avoid activities and places and to “opt-out” due to MMHL, having difficulty following conversations, not wanting to bother people with their communication needs, or just being overwhelmed by noise, arises prominently in the findings. These students also referred to difficulties connecting with classmates and that they avoided socializing. Even though school cafeterias are places for students to gather and socialize, they are identified as the number one place to avoid at school: “Yup I don’t eat in my cafeteria. Too loud. Every meal time…the dishes, the chewing…not a good setting to have conversation…I never eat there.” When schoolmates ask Angelina “please come have dinner with me, I say ‘no, like I gotta run to class.’” She described other common places where classmates might gather to connect that are also challenging: “Good luck getting me to a mall…because I can’t hear a word anyone is saying around me….I don’t like going to bars either. I just don’t find the atmosphere fun… I cannot hear a word that anyone is saying.” Brooke said that “even the hallways are noisy and busy” at school. And even though all the participants spoke about their need for closed captioning (CC) Nicholai admitted that he often will not bother asking for it or trying to explain it to people: “if it is only my friends there I’ll ask…but if there are other people there I won’t… I don’t really want the struggle.”

Even though each of the participants has a cell phone they expressed some difficulty with using them. Using their phones in noisy places is described as unnerving.
Brooke told of a time when her teacher called her parents at home and she answered: “I don’t even recognize my own teacher… that was so embarrassing.” Angelina was discouraged when she had to hand over a phonecall to her younger sister: “[it was] not something I was able to do… annoying… I put it to my ear… I can’t hear a thing.” Following his participant interview, Nicholai used his cell phone to call a taxi but the speaker on the other end had an accent. With some embarrassment he handed the phone over to the researcher saying “can you manage this for me?” Brooke said that she prefers texting, email, or using MSN: “I just always feel bad for always having to say ‘what did you say? I can’t hear you.’”

Understanding speech in groups is also described as disconcerting. Brooke explained her difficulty in groups. It is “not hearing what is going on, and then saying ‘what did you just say? Oh what did they just say?’ groups are tough.” Like cafeterias, malls, and bars, Angelina avoids talking in groups: “I just sit back, offer my two cents when I feel something needs to be said, but normally, I just listen to what’s going on.” She understands that she is perceived differently in groups as well: “When its’ one-on-one [I’m outgoing] you know [but] in a group I am always quiet and reserved. Yeah in groups of more than two or three, I’m very quiet.” Nicholai agreed that conversations in groups can be problematic: “You always have something… you might have to rearrange the furniture in order to lip read them better. You might have to tell people to quiet down.” When he realizes that he has missed speech he also needs to consider his next steps: “You have to decide, do you get them to go back to tell you the same joke again or
move on, it depends on how much I have invested in the conversation.” Although it was felt that responsibility for quality communication in a conversation should be two-way, the participants reported feeling like they usually had to do all the work.

Angelina has friends who know about her hearing loss but who “temporarily forget.” She reported getting “really frustrated…when they either speak really quickly or they’ll be talking and they’ll turn.” Brooke acknowledged that her friends “have never really taken the initiative. They never check on me and make sure I am hearing everything…I’ve never had any friends that stick up for me.”

**Assistive Devices:** “I have these devices in my ears. I can hear a lot better with them but nowhere near to where a hearing person can.” Brooke

Interview findings provided multiple descriptions of and explanations about assistive devices, the complications that arise while using them, and how they are perceived by others. Offering a critical perspective Nicholai described what he believes are teachers’ attitudes towards these devices: “The whole point is to show that technology can make the disability non-existent, to show that you can accommodate the student without having to go out of your way.” As they did with hearing loss and understanding speech, each participant made an effort to describe what it is like using assistive devices making it clear that they do not completely solve communication difficulties or alleviate their frustrations. Angelina described speech as “dull and rough around the edges and when you put them on everything is clear…crisp!” However, she was quick to point out: “It is not a pair of glasses…back to 20-20. You will always be deficient. You are less
deficient than you were if you weren’t wearing them, but you are always going to miss something that hearing people have naturally.” Nicholai agreed: “The CI doesn’t cure deafness it is only a supplement…with my CI I [still] have moderate hearing loss.” Angelina remarked: “I certainly haven’t stopped [reading lips] since I’ve gotten hearing aids. I am still concentrating hard.”

The participants also revealed that assistive devices can actually inhibit communication. Mechanical noise, ceiling fans, traffic, papers rustling, people whispering, and things dropping can be loud, distracting or overwhelming. Brooke explained: “I have something in my ear for like 10 to 12 hours a day…other people don’t have to deal with that!” When Angelina got her hearing aids she recalled thinking “how do you [hearing] people live like this? Everything was a lot louder…I just took the hearing aids out and went back to what I was doing before.” They also detailed concerns about losing and looking after their “expensive” hearing devices. Brooke described her ongoing maintenance issues and efforts to not destroy her “2000 dollar hearing aids!”: “You have to make sure the wax is cleared out [otherwise]…they get messed up! [and]…remembering batteries, because if you don’t [that]…is when the hearing aid batteries run out—ironically.” Emphasizing this point, both Angelina and Brooke’s hearing aids “went dead” during their interviews requiring a “time-out” to replace batteries. Brooke appeared anxious but soon laughed: “This is one of the most convenient times ever…you know, you are hard of hearing…I didn’t feel embarrassed to take it out in front of you but [I am] with other people.”
In classrooms, however, dealing with malfunctioning assistive devices can bring unwanted attention. Brooke described her apprehension when changing batteries in class: “Like I don’t hide them but I…try to cover them up a little bit…underneath the table instead of ‘here is the hearing aid and look at what I am doing!’” Nicholai talked about having to wear “crappy” FM systems at school and dealing with teachers who often said in class “Oh, it is not working’ and ‘how do you know it’s not working?’ and ‘what do you do to fix it?’ and we’d never know the answers to those questions.” He admitted to being “fed up with the entire process, I just decided to sit there and wait … wait til the end of class.”

At times the participants said they preferred to manage their listening environments without their devices. Angelina with mild hearing loss said “[sometimes] it is just easier to turn them off and lip read…it’s not a problem for me.” Brooke said: “I used to put them on right when I got up but now I don’t because I find that I like a break without hearing things.” She admitted that her ears get aggravatingly itchy from her hearing aids: “I will take them off but if I am in social situations, then they stay on.” Angelina said: “I will take them off when I go home.” Nicholai spoke to the irony of using a CI for independence: “Most of the extracurricular activities we did I had to take off my cochlear implant. There was a trampoline so, we had to take [it] off…because of static.” Angelina shared that “when I’m outside…it is too loud and it’s too painful and if I’m walking by myself, there is no point in having them on.” However, Brooke described feeling anxious without her hearing aids: “It is like never feeling a hundred per cent…you
feel really unbalanced… [you] don’t feel confident…you kind of feel like you are going to fall…I feel more secure when I am wearing them.”

**Summary**

In this section, *Understanding Hearing Loss*, the pattern and themes have highlighted participants’ need for their educators to understand what it is like to have MMHL and to use assistive devices. The message to educators is understand my lived experience, understand what MMHL is and what it is not, and understand the complications and limitations of assistive devices. Understand why I sometimes feel vulnerable and isolated in school and with my peers.

**Identity and Disability**

“*People like me we know that we’re different. And we know that it takes a little bit more for us to get to where our friends and colleagues who have normal hearing get to but we’re capable of getting there and we shouldn’t be treated as though we’re not.*”

*Angelina*

The second pattern emerging from the data touches on issues that are likely shared by many youth with disabilities. In conceptualizing their experiences as students with MMHL three themes emerged: *Self-identity, Stereotypes and Attitudes,* and *Difference and Shame.*

**Self-identity.** Angelina and Brooke both identified as HH while Nicholai identified as deaf. However there was much ambiguity in the data about identity, and with *whom* these students identify. There is mention of “others,” “they,” and “hearing
people” that implied a self-concept that is separate from the general populace. Nicholai uses ASL but states that he does not consider himself part of Deaf culture. He suggested that he is excluded from this group because he has a CI: “How are we supposed to have a Deaf world, a cochlear implant world, and a hearing world? I discovered of course that there was a gay world too.” When he finds himself caught in between, he asks “is there a world there, too? How are you supposed to find that?” He admitted he does not belong in the “hearing world” saying “No, I don’t think I hear good enough.”

Angelina described her discomfort on the subject as well: “Everyone else is carrying on their conversations and hearing just fine…and you can’t hear them, [then] I’m hard of hearing! I’m hearing impaired! This is just who I am. But then in other situations…nothing is different.” When asked directly “are you a hearing person?” she responded “Not all the time…I don’t know what is going on.” Nicholai reflected on his view of self within the larger society: “you have to identify yourself, you have to say ‘I am deaf can you accommodate me?’ or ‘I’m gay, I only like certain people.’ to make sure everyone understands. Sometimes I don’t feel like doing that all the time.”

Resistance to identifying as disabled appeared to be motivated by an interest in counteracting or distancing themselves from what they perceived as negative stereotypes of hearing loss. While contradicting herself, Brooke acknowledged that she will say “I have a disability” to teachers and peers but she is uncomfortable when other people say it about her: “I think of disability as not really being able to live your life. Like having someone help you live it. I can communicate. I am in a mainstream school. I can take
care of myself. I am fine. But I can relate to them [disabled people].” Angelina is asked if she feels disabled: “No no I don’t feel that way. Other people think that’s how it is.”

Because MMHL is a sensory disability, it is usually noticed by others only during instances of failed communication or when assistive devices are obvious. Angelina believed it would be easier to self-identify if she was in a wheelchair “cause it’s like it’s right there. You see it. This! No one saw it coming. I have to say, ‘No, actually, I am hard of hearing.’” These students resisted self-identifying as HH or telling their teachers when communication breaks down. Brooke explained: “In elementary school I would not have had a problem with doing that, then I got to high school…I don’t want to have them go ‘Oh she is crazy and she has a hearing loss!’” When Angelina started university she waited for three weeks to see if she could manage communication before finally telling her supervisors and peers that she had hearing loss: “But it wasn’t working out. I wasn’t catching on all the time.” She explained that she “had to tell them” because “if they needed her attention she needed to know” that they wanted her attention. Nicholai framed his reluctance to self-identify or ask for help in terms of not wanting to bother people at school with his communication needs:

I would always feel bad if I had to ask for a special accommodation cause…I’m taking away from the other 28 students…I was always calculating what I should ask for and what I shouldn’t, [a] kind of game, and I only had enough points.

Angelina later qualified her thoughts about telling people about her MMHL: “I don’t mind being the center of attention when I’m teaching them [about hearing loss].
But if people are calling attention to it so that people feel bad for me then…I don’t like that.”

*Stereotypes and Attitudes:*

A strong resistance to being labeled as *disabled* was evident from the multiple descriptions of what is believed to be the predominantly negative attitudes and stereotypes about hearing disability. Nicholai discussed how he sees disability portrayed in films and pop culture: “it’s maddening…you want them to improve the disability representation. But they won’t. So you are stuck...You feel sorry for the disabled person you know? Or the disabled person has to triumph over obstacles.” He explained one person’s thoughts about his hearing loss: “One of my friends he’s a musician. He told me that one of his greatest fears was going deaf and that was interesting because I embody his greatest fear.” Angelina claimed that “people do feel embarrassed and feel bad for me. That shouldn’t happen, like, I don’t feel bad for me, so why you should you?” She described an experience when her teammates discovered she was HH: “for the rest of the season, it’s like ‘Oh poor Angelina. She’s so young’…they saw it like a tragedy, like a disability, and it was just, Ugh!”

Nicholai told a story of how it was assumed that because he had to wear an assistive device he would be an inadequate lifeguard even though he had trained to be one: “My CI couldn’t get wet. I wasn’t allowed to proceed.” He explained to his instructor that if there was an emergency that “it would take me approximately one second to take this implant off and jump into the pool.” The head life guard told him,
“Well, the person could die in one second.” Obviously demoralized by the event Nicholai remarked: “Yeah they weren’t ready to understand. I always felt miserable about that entire experience…and I didn’t go swimming for a while.”

A belief that educators and classmates were not immune to stereotyping was a consistent theme in the data. Brooke used an analogy to describe her frustration with teachers’ stereotypical response to her communication needs:

It is a battle that just doesn’t end…it is kind of like women who had to fight for their right to vote, you know what I mean? We just have to fight to get through a day. We have to fight to have people look at us and not say ‘oh they have a hearing loss!’ instead of ‘Oh! They have a hearing loss?’ Do you see the difference? It shouldn’t be a foreign concept.

Participants gave examples of teachers who either neglected their needs in the classroom or who, as in the case of Nicholai, smothered them in ways considered detrimental. When considering what her teachers think of her hearing loss and her communication needs, Brooke revealed: “If I were to be really cynical, I would say that they probably think it is just another way for me to get attention because in the past I have tried to get attention, not positively.” Angelina suspected that her academic abilities are questioned by teachers: “You don’t know what’s going on and you keep on asking all these questions. Sometimes I feel like I come off like just a total dunce.” Expanding on this theme she added: “you know, people think you are not paying attention and that
you’re just slow. But you are right up there with the rest of your class…you have a bit of a disadvantage…[but] I’ve always, at the end, made the grade.”

It is when these students feel misunderstood or when they believe people see them as inferior that frustration motivates them to disclose their limitations to teachers. Angelina sensed that her academic ability was in question in one class: “I’ve got a professor this semester who’s got a Belgian accent so I told him ‘So if it looks like I’m not paying attention, I’m just trying to figure out what you said. So like it’s not that I don’t understand the material, it’s just that I don’t hear it all the time.” Brooke disclosed her thoughts on how teachers view hearing loss:

For some teachers it’s a learning experience. I know being a teacher is honestly one of the hardest jobs in the world, and I think teachers have so much on their plates already, that when someone comes in there with a hearing loss, it is just a thing to worry about, an extra thing they have to deal with. Seriously, I am hoping that they are looking at this as a learning experience but I really don’t know…I don’t think a lot of them do.

Nicholai believed that people avoid him due to misassumptions about hearing loss and deafness: “My classmates were probably nervous around me because they didn’t know how to approach me, they didn’t understand me. After a while they got to know me and they’d ask questions…you are constantly fielding these [things].”

Attitudes of teachers, peers, and family members informed participants’ self-understanding. Yet, their responses to negative attitudes about hearing loss and disability
were mixed: Brooke believed that by participating in this study she could improve attitudes about MMHL and awareness: “You can’t change what people think about that [but] by educating them you could stop these things before they happen.” Ever optimistic Nicholai remarked, “Well [my disability] certainly can’t change over time but attitudes can change over time.” Angelina appeared to deflect the negativity: “If you can’t change it, why fight it? Just sort of roll with it. Keep going.”

Participants wished that MMHL could be normalized in their schools. Brooke explained her frustration with teachers thinking that she is a unique case: “It needs to get to a point where [hearing loss] is not a strange thing anymore. Teachers are not being exposed to a hearing loss they are seeing a hearing loss…It is not a scientific wow! It’s just there.” Providing another analogy she strengthens her point: “It’s like there are ESL students right? Well they have to learn English. Well there are also hard of hearing people walking through the halls!” Angelina explained how people respond to her after noticing her hearing aids for the first time: “They’re like what the hell is in your ear?”

These students believed that their hearing loss has made them more evolved and that it has improved their own attitudes towards difference and disability. Brooke described the benefits of MMHL:

I can see things that other people can’t. Like I understand things better, I understand people’s feelings, just in general, because you know what it is like to struggle. You know what it is like for it to be hard to get through a day… I am
more tolerant of people with disabilities and people with illness because I’ve been there.

Once again Nicholai takes an analytical approach: “Hearing loss just brings you closer...it is my feeling that a lot of hearing people lack intimacy because they don’t have to work on their communication skills.” He further speculated on hearing loss, communication, and relationships: “You have a lot of marriages [where] the wife and the husband can’t understand what the other person is saying…they’re not working at it. They’re not saying ‘can you understand what I just said?’”

The participants described being recipients of negative comments and attitudes which have included being asked “What are ya, Deaf?” Angelina’s initial reaction to this phrase was discomfort and embarrassment but she then shrugged it off: “People who say that, they don’t know. I laugh it off…I’ve tried not to take it personally…it’s not really a big deal.” She admitted that her close friends are insulted on her behalf however when this happens. Brooke said she is outraged when it is said to her: “That is so mean!” She described it as “a huge insult because even if I am deaf well you should respect that!”

Thinking more about negative attitudes of her classmates, Brooke grumbled that they will learn eventually: “Well you know the way kids listen to ipods? Trust me in the next five years they will all be wearing these hearing aids too, so good luck with that.”

**Difference and Shame**

Divergent declarations on the issues of difference and shame in the data showed how conceptualizing one’s identity and self-concept with the realities of a mild or
moderate disability remain unreconciled. These students acknowledged their “minority” status in the classroom and that their differences from the larger community induced offense and frustration but it appeared to also instill humility. There was a fluctuating sense of self-concept: “Getting through school is hard for anyone. Yes it is a little bit harder for me but everyone has to go through Grade 12 and it is difficult. OK a lot harder, but it is not something I think about on a daily basis.” After additional consideration, Brooke continued: “I guess I am giving myself advice here, but you’ve got to embrace the hearing loss. You have to look at it like ‘yeah you are different but that is what makes you special.’” Angelina appeared agitated with people’s reactions to her hearing loss: “Well, they’ll treat me differently! After…my skills were just overshadowed.”

Having hearing loss, whether it is acknowledged (e.g., being awkwardly singled out) or not (e.g., responding inappropriately or missing conversation), can impact students’ status with teachers and classmates. Nicholai considered how he navigates the classroom: “the hardest thing in class is…well trying to get everything that you need without drawing so much attention to yourself, without making it seem like you are more special than the other students. Brooke addressed her vulnerability: “I am the minority in the class I understand that” and “People could be talking behind my back. They could be whispering in class and I would never know and that sucks too because I don’t know if I would stick up for myself.” She understands that she is not the only student with MMHL but she does feel isolated: “A lot of people deal with this but a lot of the time it just feels like I am the only one.”

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During interviews, the participants acknowledged a sense of shame but also articulated an unrelenting determination to resist feeling this way. Brooke admitted to her fluctuating sense of self and shame:

Yes of course. It is a natural human emotion and there are times when I don’t mind screaming from a roof top that I am hard of hearing and there are times when I want to say ‘everything is just fine with me. I am the same as anyone’ but unfortunately that is just not true.

Angelina considered her hearing disability: “Oh that doesn’t bother me…I don’t have a problem with it. It is not something I’m ashamed of or like ‘why god why?’…it’s there, you deal with it. But for them it’s like ‘oh like poor you.’” Considering the matter further she said that she takes it “almost like a compliment. If no one noticed up until now then I’m doing something right. That may be a very twisted way of looking at it but I don’t feel bad, that is how I look at it.” Nicholai recalled his epiphany on the subject:

I felt somewhat ashamed of being deaf. And I just sat down and I had a breakthrough. I figured out that I wasn’t like the other people. I decided at that point you know, that there was just no point in being ashamed because that is just who…just who you are.

Angelina described her sense of disability in competitive terms: “Yeah it’s not that I’m embarrassed or anything that’s not it, it’s just that I feel I can communicate just as well with you…anything you can do I can do better.” Brooke acknowledged that she is
different but said “it is not something that I think ‘Oh I am hard of hearing and everyone else can hear,’ it is just another thing that I have to deal with.”

Each student also expressed that shame need not be a feature in the lives of other students with MMHL: “Don’t be embarrassed by it. Just show off your hearing aids because it is actually nothing to be ashamed of.” Nicholai spoke to students who need support from teachers: “There is no shame in asking for help. So hopefully it will lead [to] understanding…in the classroom.” Brooke’s message was “Don’t be afraid to say ‘I didn’t hear it.’ Put your hand up because if kids will judge you based on that well then…they are not good enough to be your friends.” Nicholai felt that other students with MMHL could benefit from understanding “the social conception of disability….it’s] not necessarily something that’s inherently biologically wrong with them…. they need to become more of a self-advocate in order to be happy.” Brooke provided encouragement: “You are not alone. Make sure you fight for what you need. As much as it is hard to fight and [it’s] exhausting, you’ve got to do it because, if you don’t do it, who else is going to do it?” Nicholai asked children with MMHL to consider their situation realistically: “you probably shouldn’t make any assumptions based on incomplete information. Cause maybe you might be wrong you might be mistaken, and you might actually be normal.”

Summary

The pattern Identity and Disability highlighted the impact that the social construction of disability and predominantly negative stereotypes can have on these youth with MMHL. It also addressed students’ resistance to adopting an identity
associated with negative constructs. Their message to educators is to recognize the inherent contradictions that come with having MMHL. These students communicated that they wanted independence in school but that they also need assistance in classrooms. They do not want to be identified as disabled because if they do then they are admitting to a degree of inferiority or weakness. Yes they are disabled, but they do not want their educators to single them out because of this.

**Advice for Educators**

“There should be a like manual for teachers and, if not a manual, there should be a page about hearing loss.” Brooke

The final pattern included both pragmatic and conceptual advice for educators of students with MMHL. Within this pattern emerged two themes: **Practical Considerations** and **Empathy**

**Practical Considerations:** “No teaching in the dark!” Brooke

The data provided specific ways in which classroom teachers can help students with MMHL negotiate communication challenges, what teachers can do during lesson delivery, and how teachers can better manage the classroom environment to ensure an optimal learning experience. Angelina provided a resounding message to classroom teachers: “I’m going to adapt to what you are doing but you’ve gotta adapt to what I’m doing. Cause if one of us slacks it is not going to work!”

The participants explained that they want teachers to “check-in” on them, but discreetly. Brooke said: “you need to pay a little more attention to that student [with
MMHL] and to the way other kids act with that student, make sure they are getting everything.” Angelina described what teachers should do specifically: “Say ‘how you doing?’ or ‘Are you understanding what I’m saying?’ and ‘Are you following along’ those sorts of things.” Thinking back on her classroom experiences she wished that her teachers had “taken extra time to make sure that I wasn’t either daydreaming or falling asleep.”

Brooke agreed that students with MMHL need to self-identify their needs to teachers: “Like say ‘Hi I am hard of hearing I need to be able to lipread you blah blah’ but from then she felt that teachers “should just take care of it” meaning that students should not have to continually remind their teachers to use effective communication practices. She wanted teachers to take the “initiative” with students like herself because “when you are 8 years old, when you are 12 or 14 too, you have enough on your plate you shouldn’t have to.” She also appreciated that students should “ask for help when they need it…but at the same time…you need to give them all the help they can get.” Nicholai wanted teachers to help “in such a way that that doesn’t make you feel any different from everybody else.” Angelina suggested that teachers could review missed content: “One-on-one, maybe during a recess or something,” but Brooke added: “I don’t think that kids should really have to go after school or in the mornings if they don’t get something.”

The issue of being “singled out” or receiving “unwanted attention” from teachers was articulated often. Given his past experiences with what he felt was excessive attention in the classroom, Nicholai suggested that teachers encourage the “child to come
to you to ask for what he or she needs and [then] give that child what he or she needs specifically…identify the problem and solve it.” He asked that teachers not yell out in class: “Am I speaking loud enough for you? Because…if the issue was that she wasn’t speaking loud enough, the child should be encouraged to ask for that” in their own way. However, Brooke said: “I want them to come up to me personally, quietly, and say ‘how is everything going?’”

On multiple occasions the participants expressed the necessity for lesson content and classroom instructions to be visible. Brooke told teachers: “I need you to write everything down on the board for me, it has to be written down!” Angelina stated that providing skeleton notes would help kids with MMHL to focus on necessary information but added: “give everyone the notes so you are not singling that person out.” Brooke explained why it is critical to see words: “Just talking, it goes in one ear and out the other. Some people listen but you know what, a lot of people can’t pay attention. So write everything down…somehow it helps them absorb it.”

These participants who have a communication disability then provided advice on how teachers could improve their communication in the classroom. Brooke exclaimed: “if someone comes to you with an FM system embrace it, like seriously…definitely wear it no questions asked!” Angelina and Nicholas advised that teachers need to get their HH students’ attention before speaking to them: “They have to tap me or they need to call out my name…give a hand signal yeah, just the little things. I have to be paying attention to them when they talk or it [isn’t] going to work.” Nicholai wished “that teachers could tell
you *what* they’re going to do and *then* do it.” He also wanted teachers to speak to him directly and not talking to the blackboard: “facing me so I can understand you.” Angelina described that when teachers talk and write on the board or overhead: “I just put them out of my head as I’m writing…I’ll hear sound but the sounds don’t translate to words all the time…it’s like Charlie Brown, ‘whaah whaah whaah.’” She recalled feeling excluded in class because of this: “people were scribbling down the notes *and* what she’s saying. I’m only getting half of what is going on...it was sort of like ‘fill in the blanks.’ Only everyone else got the blank but I didn’t.”

With consideration for the pace of lessons and discussions in the classroom, Angelina believed that classroom teachers needed to “understand that [students with MMHL] are not going to catch everything you say” and asked that teachers take time to explain material: “don’t throw everything out at once because then I will miss it...it doesn’t work. Maybe it works for people with *perfect* hearing. I don’t know it has never worked for me.” With an air of frustration Brooke added: “Like if teachers say no to these simple requests they are not being fair, I could go complain.”

Both the physical circumstances of the classroom and the seating arrangements were raised as important considerations and key points were made regarding the need to be able to “see” and “hear” the teachers at all times: “lighting conditions are very important and sound conditions too.” Brooke described her perfect classroom: “It would be bright. Not too bright but light enough so that I can hear everything or like see everything. And teachers don’t teach in the dark like my English teacher does.”
Remembering her difficulties in her Grade 2 class, Angelina advised that students with MMHL be “automatically” given the best view of the teacher and not be placed in open-concept classrooms due to the background noise. She recalled sitting on an angle in her classroom and when her teacher turned slightly she thought: “I can’t see you. Now I’m not sure if you are still talking about what you were just talking about, or you’ve turned away because something else has gotten your attention.”

During her interview Brooke also noted how critical it was that she “see the teacher at all times and...see the kids at all times.” She described her preferred seating plan: “you just put the desks in a circle then you can see everyone. The teacher is in the middle of that circle” but she admitted that even this arrangement has its’ complications: “I kind of have that in one of my classes but I still can’t hear what everyone says.”

Nicholai spoke to the dilemma of “visual noise” in classrooms that distracted his view of speakers and his ability to concentrate describing it like “zigzag” patterns around him. He also spoke about obstacles in “the center of the table between you” and the teacher.

Brooke recommended that students with MMHL be taught in “a smaller classroom with less people...but I don’t think that will ever happen!” Nicholai said that in his perfect world “There’d be class sizes of 8!"

**Empathy:** “It is definitely something that they should touch on in teachers’ college.”

**Brooke**

As discussed earlier, there was a general feeling of being misunderstood amongst these students with MMHL. It was expressed that “knowing what that child is going
through would make a whole lot of difference” and improve teachers’ empathy for their challenges: “they need to hear from students who’ve gone through it!” Angelina noted: “I can only imagine how hard it is for the teachers to try to relate” to us. Yet she also said that she can easily tell when teachers get “frustrated” and “angry” with her:

You don’t know what it is like to not to hear the way you do. So, why get upset about it? If they keep asking questions…Don’t get agitated…don’t get flustered…sort of take a step back and try to think about what they’re going through.

She explained that the student with MMHL “is going to experience so many different things that they have to cope with” and that they “just [need] the empathy.” Nicholai wanted teachers to “be able to recognize that [these students] have shortcomings and limitations…it isn’t a failure of their personality…it’s just the way that things are.” The message echoed by all the participants was that “there is nothing wrong with this kid. He just can’t hear as well as anyone else!”

Teachers were asked to have empathy for the emotions of students with MMHL because, as Angelina describes it: “Sometimes it is going to be upsetting that we were born with this or developed this, and just to know for the most part we are OK with it, but there are going to be times when it just sucks.” Brooke reminded teachers not to neglect students with MMHL in the classroom: “Part of their job is to teach *everyone* not just those 29 students…there is that 30th student that needs your help too.” Nicholai suggested
that “as painful as it sounds, [teachers] shouldn’t look at a child with a disability as some kind of a technical difficulty” that needs to be fixed.

Angelina reminded classroom teachers to understand that “we’re able to step up to the plate and do what we need to do, to get where we need to go. Sometimes we don’t always want to step up to the plate. Sometimes it’s hard.” She explained that, even when using assistive devices, students with MMHL are not going to be able to listen “through every class that you are going to give, through every topic.” She asked “does every kid pay attention all the time? No!” Like normal kids she said that students with MMHL are “going to be wanting recess to come faster and…to talk to their friends, [even] when the teacher is talking.”

Angelina also addressed teachers’ misassumptions about assistive devices: “[they think] ‘Oh well the hearing aids fixes it…Well no they don’t! I think that teachers need to be educated on what a hearing aid actually does. How it works. What the pros and cons of having one in is like.” Brooke wanted teachers to understand that “if [a student] is wearing two hearing aids…automatically know that she has more to deal with than the other students.” And Angelina added: “even if you have only one kid with a hearing aid, they’re not going to hear as well as you think they are, especially in places with echoes, like hallways or gymnasiums, or [with] PA systems.”

The participants also wanted teachers to be accessible, to provide a sense of safety and security in the classroom, and to “just be patient with them emotionally…because honestly they’ll carry [experiences] with them for a long time.” Brooke reported that she
will never forget the teachers who came to her before she had to go them “because that made me feel so much better. [I knew] that someone cares.” Nicholai said that he believed that many kids with MMHL “fall through the cracks because they were unable to ask for help on the way down.” It was felt that teachers should be “open and encouraging” so that students would “not be ashamed for not understanding something.” “Nicholai thought it would help if the gap “between the authority figure and the children” was narrowed to make “the teacher more identifiable to the students.” Angelina explained that feeling connected to your teacher is important for students with MMHL: “because if you miss something or someone is bullying…you’ll have that teacher to go to who knows or who understands or who is aware of what is going on with you.”

Findings indicated that teachers should be proactive in educating their entire class about the constructs of difference and inclusion especially if they have students with disabilities. Nicholai explained: “you want to get at the individuality of peoples’ experiences but the generality of acceptance….everybody has a different way of understanding the world.” He advised that teachers “study a story about someone with a disability having to try to get accommodations…you can talk about it then say ‘do you see the problem here and do you think that was fair?’…create a communal experience.” Participants wanted teachers to empathize with their students with MMHL, so that they could help these students better understand themselves. Nicholai asked the teacher to help the student with a disability “feel like he or she is just one of the gang” and to “let that child know that there is nothing wrong with them, that they are just different…and that it
is OK… everyone is different so don’t worry about it… its nothing to be upset about or ashamed about.”

**Summary**

The pattern *Advice for Educators* highlighted the practical and empathetic ways that teachers can enhance the classroom experience for students with MMHL. Their message to educators was to please attend to communication, learning, and social-emotional needs of students with MMHL. They asked teachers to teach to be seen and heard and to ensure that their classrooms are arranged to meet their communication needs so that they could acquire the information and lessons delivered. They wanted to be at ease and comfortable in class so that they could feel safe enough to tell their teachers when they missed speech or needed help. They explained that they are working hard to understand lessons so teacher should use effective communication practices and assistive devices when asked, get their attention before speaking, and go slowly. They want teachers to have empathy for what they are dealing with and to know that they want to learn, to participate, and to be independent.

**Chapter Summary**

From a review of these emergent patterns and themes, a broadly defined yet coherent message to educators was identified by the participants that highlighted the importance that educators (a) *understand* the lived experience of students with MMHL, (b) *recognize the inherent contradictions* that can accompany this disability, and (c)
attend to needs, not only to basic communication and learning needs but to social-emotional needs as well.
Chapter 6

Discussion

Currently a comprehensive understanding of the learning and social-emotional experiences of students with MMHL is lacking and many educators are not cognizant of the fact that hearing loss, regardless of severity, can have a negative impact on these students. Very little research investigates these experiences from the perspectives of the students who have this disability. The purpose of this study was to investigate the MMHL experience from the perspectives of adolescents and young adults to gain insight into how they, as learners, conceptualize and manage their hearing loss at school and to develop recommendations for researchers and educators. My motivation is to share these insights with educators so that they may better support the learning needs and social-emotional well-being of these students.

Two chapters reporting participant findings met the initial purpose of this research. Chapter 4, *Three Students with MMHL*, was broadly structured to reflect the interview questions and provided descriptive accounts of the lived experiences of students with MMHL at schools and with teachers, and also presented their personal hearing loss management strategies. Chapter 5, *Emergent Patterns and Themes* provided data organized by standard qualitative theme analysis to reveal how participants conceptualized their MMHL to highlight the strongest and most important messages for education researchers and practitioners. These data emerged as three patterns and eight
themes: *Understanding Hearing Loss (Explaining Hearing Loss, Frustrations, and Assistive Devices), Identity and Disability (Self-identity, Stereotypes and Attitudes, and Difference and Shame)*, and *Advice for Educators (Practical Considerations and Empathy)*.

From a review of these patterns and themes, participants articulated a broadly defined yet coherent message to educators. This message highlighted how important it is that classroom teachers (a) understand the lived experience of students with MMHL, (b) recognize the inherent contradictions that can accompany this disability, and (c) attend to academic, communication, and social-emotional needs.

In this final chapter a discussion of all the analyzed data considered through the lenses of SDT and disability identity research sets out to meet the additional purpose of this study: to develop recommendations for researchers and educators. This chapter also summarizes the data that responds to the original research questions: What are the educational and social experiences of children and youth with MMHL? What do students with MMHL feel they need from their teachers to be more socially-emotionally secure and more competent in their learning? What do students feel are teachers’ assumptions about, and attitudes toward, students with MMHL?

**Self Determination Theory and Disability Identity**

SDT asserts that having a secure sense of relatedness, competence, and autonomy are critical to intrinsic and extrinsic motivation, social functioning, and self-determination. Adverse consequences for well-being can result when these psychological
needs are not met such as when students fail to experience a secure relational base or if they view their teachers as uncaring, when students feel unable to effectively deal with the demands of the educational environment (e.g., academic tasks and social interactions), and when they feel unable to act in harmony with their integrated selves, or believe that they are not a causal agent in their lives. Whether or not students’ three psychological needs are met influences their motivation styles. An extrinsically regulated style of motivation (e.g., being coerced), an introjected regulation style (e.g., succumbing to external pressures to enhance self-esteem), and an identified regulation style of motivation (e.g., autonomous behavior with more positive coping styles) were relevant considerations for understanding the participants in more depth.

Ryan and Deci (2000) stated that educators are in a position to positively influence learning environments to help students: (a) achieve a sense of relatedness with other adults and with peers, (b) increase their sense of competence during the academic and social components of learning, and (c) increase their feelings of autonomy, volition, and independence during educational endeavours. To support students with MMHL educators must also have an understanding of how the social environment contributes to student development, performance, and well-being. Gill (1997) explained that the manner in which family members, professionals, and other significant social figures frame disability can be a common barrier to psychological wholeness.

When we consider the lived experience of the students in this study and their messages to teachers, through the lens of SDT and disability identity development
research, it is clear that they have been challenged in their attempts to meet their three psychological needs and that the social construction of disability has indeed complicated their development of positive self-concept and has inhibited their help-seeking behavior at school.

The data revealed that participants expend much time and energy attempting to relate to the people in their educational environment. Yet these students expressed that when they are not understood by their teachers or, when their efforts and limitations are not recognized, they feel less inclined to communicate their needs and are less motivated to build relationships with those who have “perfect hearing.” The students with MMHL in this study described feeling connected only with teachers who “understand their struggles” and who are not “intimidating” and with peers who “know” about their hearing loss and can be “trusted.” Participants revealed that they have difficulty relating to the “hearing” people in their educational environment and that they know that they are “different.” Yet they still strive to make connections, to be one of the “gang”, and to be treated the “like everyone else.”

Competence was referred to frequently in the interview. All participants spoke of their difficulty “keeping up” with classroom content and discussions, and with their peers at school. They reported “opting out” and avoiding activities, people, and places due to their difficulty managing communication. Participants also shared how they often felt “embarrassed” in front of peers and how they seek assistance from their educators, only when their academic competency is questioned. These students indicated that they are
motivated by external pressures to “compete on the same level” and to “make the grade” but that at times they “just can’t do it” and that they often “give up” trying. Each participant raised the issue of “fatigue” and of “falling asleep” in class or needing to take “naps” just to get through the school day. The participants indicated that they are not capable of doing two or more learning tasks at once especially if listening is one of these requirements. They also addressed their experience with “anxiety” over missing speech, lessons, and their future endeavors with MMHL.

The students in this study also expended enormous effort and energy trying to manage the listening environment and the noise in their classrooms. Participants explained that their hearing aids are not like “a pair of glasses” or “a cure” for their hearing loss and that they still often miss what others hear “naturally.” They told us that their assistive devices can make communication worse because of background noise in classrooms, hallways, gymnasiums, and outdoors and revealed that, at times, they are better off when they get a “break” from hearing. Perhaps removing their devices is a way for these students to take control over their learning environment and to manage fatigue. When they tune out, opt out or take off their assistive devices, clearly they have “had enough” or have “given up” and they are “tired” of listening. Yet, situations like these can make it difficult to feel competent in the classroom.

It is evident that these students are acting autonomously when they build up the courage to say to their teachers, “I’m hard of hearing please accommodate me, please teach so I can see your face, and please put on the subtitles so I can follow the lesson.”
But is it necessary that, in addition to the energy and effort they expend to connect with those in their classroom and to keep up with lessons and academic expectations, that they must also ask their teachers, multiple times, for basic communication courtesies? Is it realistic to assume that students with MMHL are reaching their learning potential when they are placed in classrooms that are open concept and arranged in ways that inhibit a clear view of their teacher and classmates, or when teaching takes place in the dark? We heard from students who, with a limited supply of energy to focus and process information, also choose what they pay attention to in class, teach themselves lesson content when they cannot get it during class, and attempt to “catch up” on missed information, discussions, and jokes from friends or teachers, after the fact. In order to survive and manage in classrooms which offer little support for their autonomy, these students had to act with independence and resolve.

Students with MMHL in this study also spoke to their confusion and discord around the issues of identity and disability. They said that they believed themselves to be as capable as typically hearing peers but also admitted that they do not fit into the “hearing world” at school. They have seen themselves portrayed negatively in the media and have acknowledged feeling vulnerable due to negative attitudes of some individuals in their learning environments. These participants expressed a belief that teachers view them as “slow” or an “extra problem” and that their teachers think their hearing loss is “unique” or a “tragedy.” Yet, what these students with MMHL crave from their teachers is understanding, respect, and someone with whom they can feel safe.
Participants described various scenarios in which they are *disabled* in the classroom by educators and peers who neglect their communication and social-emotional needs but they also declared that they are not “ashamed” of their hearing loss and that it should be “embraced.” Collectively their message to other students with MMHL was to *not* be ashamed or embarrassed, evidently because they *have* felt these debilitating emotions at school. Interestingly, participants also take it as a “compliment” when nobody detects their MMHL.

One participant in this study received a range of educational interventions due to his “deaf” status. In this case the interventions were viewed as excessive and harmful to his social-emotional development and to his self-determination. Another student received no support or interventions for her mild hearing loss due to oversights by teachers, family members, and other professionals. In this case the participant had the benefit of early educational circumstances that enhanced her ability to cope. She also exhibited unusually high motivation to succeed. This participant understood very early on that she had to work harder to achieve academic success and believed that her life and learning would have been easier had she received support or interventions. It is possible that had such support or interventions been in place she may have spent less time going to her teachers during lunchtime and less time falling asleep or getting headaches during class. However, another participant received excessive interventions evidently slept during the school day as well. From the findings in this study, it appears that neither the provision of classroom interventions normally afforded to students with greater degrees of hearing
loss nor treating students with MMHL as typically hearing students are adequate to meet their learning and social-emotional needs.

**Extending Findings of Reviewed Literature**

Much of the research reviewed for this study that employed survey data collection with students with MMHL suggested that few academic differences were evident when these students were compared to typical hearing students (Antia et al., 2009; Davis et al., 1986; Kent, 2003; Punch & Hyde, 2005; Richardson & Woodley, 1993). The findings from this study would confirm that participants with MMHL perform like typical hearing peers *academically*. Two of the participants were nearing completion of university degrees and the third was planning to attend post-secondary studies the following year.

Antia et al. (2009) reported recent research on HH students’ academic status. These authors found that 197 mainstreamed HH students, of whom 53% were determined to have MMHL, were achieving at a higher level academically than is suggested in previously reported research. The authors also reported that these students “can make adequate progress in these classrooms” (p. 209). Their study was based on standardized achievement tests and standardized teacher ratings of academic competence over a five year period. I suspect that qualitative inquiry to gain insider perspectives into the educational experiences of these same students would expand our understanding of these academic achievements. I also question the concept of *adequate* progress for students with hearing loss in this study and I remain curious about and dedicated to the investigation of *potential* progress of students with MMHL.
Research reviewed in Chapter 2 that employed in-depth interview or participant-expressed perspectives on social-emotional indicators suggested that students with MMHL have vulnerabilities; especially with feeling connected to teachers and peers, feeling competent with academic tasks and with meeting expectations, and in areas of positive social self-concept (Davis et al., 1986; Israelite et al., 2002; Kent 2006; Loeb & Sarigiani, 1986; Punch & Hyde, 2005; Warick, 1994). Other research indicated that classroom noise, and teaching practices or neglect undermined student autonomy and negatively impacted mental and physical fatigue, quality of life, and well-being (Johnson et al., 1997; McCormick Richbury & Goldberg, 2005; Tharpe, 2008; Wake et al., 2004). The data in this study overwhelmingly confirmed that due to their MMHL, participants had learning challenges and continue to struggle with social-emotional well-being at school. The data also provided practical considerations and strategies for improvement in these areas.

The literature addressing disability identity suggested that the social construction of disability can be internalized by young people with disabilities and that negative attitudes and stereotypes can interfere with healthy development of self-concept and self-identity development (Cameron, 2007; Gill, 1997; Kinevay, 2007). The findings in this study supported these assertions and detailed how ongoing negativity and insensitivity from educators and peers can add to difficulty with social cohesion and create contradictions in self-identity development which can undermine help-seeking behaviour and autonomy in learning environments.
Kinavey (2007) suggested that students with disabilities employ one of three “self-explanatory models” of disability (i.e., overcoming, externalizing, and integrating disability). The findings in this study suggested that participants adopted different explanatory models and that teachers could benefit from understanding how students understand themselves. However, the findings also indicated that perhaps these models are less concretely defined and more fluid, variable, and dependent on both internal and external circumstances; not unlike motivation styles described in SDT. It seems likely that students’ self-explanatory model of disability may be highly reliant upon the degree to which their three psychological needs are met in their educational environment.

The literature reviewed for this study organized by the three psychological needs of SDT emphasized how classroom contexts can be utilized to enhance self-determined learning of students with MMHL. Findings in this study have led to the conclusion that participants did indeed face greater challenges to their psychological needs satisfaction, due to the invisibility and variability of MMHL, to their desire to be viewed as typical students, and to the lack of educational support or empathy from their classroom teachers. Of interest to all educators is that the data have also revealed that participants respond positively, are more engaged in their learning, and are better able to meet communication challenges when they feel that they and their disability are understood by their teachers.

One consideration emerging from the data was that these students appeared to be effective at “passing” or “fooling” those around them through bluffing, through their intense focus on speech and body language, and through their own hard work. Otherwise
why would their educators assume they are fine in the classroom? These students work hard to accommodate their teachers and peers and to get the information they need in class, in non-visible ways. However these students may not be as effective in “fooling” themselves into believing that they are “fine” or really “the same as everybody else” regardless of the numerous declarations to the contrary. Participants in this study confided that they know they are “different” probably because they are continually reminded of this fact when they are subjected to insensitivity, when they are singled out or embarrassed, and when they are not able to understand speech that their hearing classmates get “naturally.”

This qualitative research benefitted from capable, articulate, and highly successful informants with MMHL. These students were also confident enough to come forward and tell their stories in a way that helps educators and researchers to understand the experience of MMHL. It is recognized, however, that these participants are an elite group of learners and the reader is cautioned against assuming that they are representative of all students with MMHL.

As a HH researcher, counsellor, teacher, and student, I was uniquely situated to positively guide the participants through the interview process. But my background, experiences, and skill set also managed to enable these students on a personal level in ways that may not be the standard. These students were able to self-disclose to a person who was an insider and with someone whom they believed “understood” their issues, their concerns, and their attempts to self-advocate and they each expressed gratitude for
these reasons. Without similar connections to the issues another researcher may not unearth the same frank disclosure or the depth of rich data uncovered in this study.

The participants in this study were also exceptionally good communicators due, possibly, to their reported diligent assessment of and preoccupation with enhancing speech comprehension at school. Consideration must be given to the degree of thought and effort expended to figure out the “puzzle” of speech when quality communication is lacking and, in assessing their social status, in light of negative stereotyping and attitudes. It should be recognized that this thought and effort is expended prior to the possibility of them approaching classmates or teachers for support. It also should be noted that even these exceptionally articulate and elite learners expressed difficulty communicating their needs to those in their educational environment. It is therefore unlikely that all youth with MMHL are as capable at communicating their thoughts and frustrations or as skilled in explaining their needs to educators as were these participants.

It is unrealistic that all students with MMHL can be depended upon to remind their teachers repeatedly and effectively to attend to their academic, communication, and social-emotional needs. The students in this study were successful academically and are attending or will be attending university. However, they have struggled with their learning and with social-emotional needs. It is possible that their experience with MMHL has interfered with reaching their potential, if not academically, perhaps in other areas of their lives. Much time and energy has been invested in a multitude of coping
strategies and resistance to self-identifying as disabled that might otherwise have been channeled into other productive avenues.

Using a mainstream theory such as SDT was an effective analytical tool for understanding the learning and social-emotional needs of students with MMHL but it was not sufficient. Motivation for self-determined learning of all students can be understood through an assessment of their three psychological needs as outlined in SDT. But the students with MMHL in this study expressed unique experiences, different from other students, and self-identity and self-concept issues were interwoven throughout each participant’s story and in their messages to educators. Analysis of the data required both a critical eye and a discerning ear. Research on disability identity development provided the needed insight to capture important elements in the findings and enabled a more stringent assessment of these students’ experiences. Consequently, this study has provided a theoretically informed analysis of the learning and social-emotional needs of students with MMHL that is not currently evident in educational literature. The current study has also presented an analysis that neither SDT nor research on disability identity could have accomplished independently.

Implications and Recommendations

Recommendations for Educators

Classroom teachers can proactively facilitate potential learning outcomes for students with MMHL by attending to not only academic and communication needs, but to social-emotional needs as well. First and foremost, a strong and caring relationship with
these students can enhance motivation for self-determined learning. To achieve a sense of relatedness, these students must have a strong sense of belonging and connection to those in their educational environment and have teachers who are committed to understanding their needs. To achieve a better sense of competence in participating in the classroom with peers, these students require support to develop confidence in their interpersonal interactions and a belief that their hearing loss can be positively integrated with self-identity. These students also need their teachers to recognize the inherent contradictions that accompany their experience with disability. To help these students achieve a sense of autonomy, teachers must consider that students’ ability to learn with MMHL is undermined by noise, cognitive fatigue, limitations of assistive devices, and that these students need to have some control over their communication and learning. These students will benefit and reach their potential when classroom teachers attend to their academic, communication, and social-emotional needs through proactive design and management of the learning environment.

Implications for Future Research in Education

With up to 15% of the student population experiencing MMHL, researchers must turn their attention toward understanding these exceptional students and investigating inclusive and effective practice for use by regular classroom teachers. It is apparent from this study that existing quantitative findings on academic performance outcomes can be enhanced by qualitative research that targets key informant perspectives on the social-emotional variables impacting the entire educational experience of this population.
Researchers also need to be cognizant of findings that suggest that students with hearing loss give contradictory reports on surveys and during face-to-face interviews (e.g., Kent, 2006; Punch & Hyde, 2005) which may reflect complex social-emotional concerns considered in this study, such as students’ desire to be seen as “normal” and their identity development, and how these issues may override help-seeking behaviour in classrooms. Future investigations of students with MMHL could also benefit from an assessment of the specific social-emotional effects due to an absence of successful identification with a distinct cultural group (e.g., Deaf or hearing culture). Another important goal for educational researchers is to assess whether students with MMHL can benefit from similar or different supports and interventions currently afforded to students with more significant degrees of hearing loss.

When examining this population of learners the task of assessing the social-emotional experiences of other students with less visible or entirely invisible disabilities may provide additional insight. How the lives of students with MMHL unfold compared to students with other disabilities or other learning challenges may reflect their unique strengths such as heightened attention to both verbal and non-verbal communication, intense discernment of how they are perceived by others, capacity for hard work, and an early awareness of the necessity to be autonomous in matters related to their education. Thus educational research on students with MMHL must begin to investigate their unique “strengths” so that future interventions are aligned to complement and capitalize on these strengths to enhance students’ learning and social-emotional experiences. Investigation
into research such as that found in the field of Appreciative Inquiry (Cooperrider & Srivastva, 1987) may be effective in achieving these goals. Continued use of SDT and disability identity research as analytical tools can enhance ongoing empirical investigation of students with MMHL, build on insights gained from this study, and pragmatically inform classroom teachers about the learning and social-emotional needs of this population of exceptional students.
References


Appendix A

Ethical Clearance Certificate

October 4, 2009

Mr. CT Dalton
Faculty of Education
Duncan McArthur Hall
Queen's University

GREB Ref #: GEDUC-467-09
Title: "Listening to Students: Educational Needs of Youth with Mild and Moderate Hearing Loss"

Dear Mr. Dalton:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled “Listening to Students: Educational Needs of Youth with Mild and Moderate Hearing Loss” for ethical compliance with the Tri-Council Guidelines (TCPS) and Queen’s ethics policies. In accordance with the Tri-Council Guidelines (article D.1.6) and Senate Terms of Reference (article G), your project has been cleared for one year. At the end of each year, the GREB will ask if your project has been completed and if not, what changes have occurred or will occur in the next year.

You are reminded of your obligation to advise the GREB, with a copy to your unit REB; of any adverse event(s) that occur during this one year period (details available on webpage www.queenu.ca/erp/greb/sdforms.html#Adverse ). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example you must report changes in study procedures or implementations of new aspects into the study procedures on the Ethics Change Form that can be found at http://www.queenu.ca/erp/greb/sdforms.html#Change. These changes must be sent to Linda Frid at the Office of Research Services or FRDL@queenu.ca prior to implementation. Ms. Frid will forward your request for protocol changes to the appropriate GREB reviewers and/or the GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Yours sincerely,

Joan Stevenson, PhD
Professor and Chair
General Research Ethics Board

c/c: Dr. Nancy Hutchinson, Faculty Supervisor
Dr. Malcolm Welsh, Chair, Unit REB
E-REB: c/o Graduate Studies & Bureau of Research, Attn.: Celina Fuentes

JS/gi

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Appendix B
Letter of Information

Listening to Students: Educational needs of youth with mild and moderate hearing loss.

My name is CJ Dalton and I am writing to request your participation in research aimed at understanding the educational experiences of students with mild and moderate hearing loss. The title of this study is Listening to Students: Educational needs of youth with mild and moderate hearing loss. The ultimate goal of this research is to improve the educational experiences of youth with hearing loss. I am a graduate student in the Faculty of Education, Queen’s University. This study was granted clearance by the General Research Ethics Board for compliance with the TCPS: Ethical Conduct of Research Involving Humans, and Queen's policies.

I wish to document the views of students with mild and moderate hearing loss about factors that influence their educational experience. To do this, I am planning to conduct two interviews and a short questionnaire. I am inviting you to participate in two interviews and complete the questionnaire. There is potential for a third interview if you are in agreement or if requested by you.

The questionnaire can be completed either electronically or by pen and paper prior to the interview and is expected to take 10 minutes. The questionnaire can also be completed during the meeting for the first interview. Individual interviews will be conducted at a time that is convenient to the participant. The location will be neutral and will ensure confidentiality, and optimal communication conditions. The interviews will consist of two, forty-five minutes meetings and will be audio taped. Additionally, I will make occasional notes during the interview. These notes will be written up and maintained as a computer file. You are requested not to discuss the content of the interviews. The audio recorded interview will be
transcribed, and then the recording will be destroyed. None of the data will contain your name or other identifying information. Data will be secured in a locked cabinet and confidentiality will be maintained to the extent possible.

There is a small risk that you may experience emotional vulnerability during interview when recounting your experiences. Your participation is entirely voluntary. You are not obliged to answer any questions you find objectionable, and you are assured that no information collected will be reported to anyone who is in authority over you. You are free to withdraw from the study without reasons at any point, and you may request removal of all or part of your data.

This research may result in publications of various types, including journal articles, professional publications, newsletters, books, and instructional materials for schools. Your name will not be attached to any form of the data that you provide, neither will your name or the identity of your school be known to anyone tabulating or analyzing the data, nor will these appear in any publication created as a result of this research. A pseudonym of your choice will replace your name on all data that you provide to protect your identity. If the data are made available to other researchers for secondary analysis, your identity will never be disclosed.

If you have any questions about this project, please contact CJ Dalton at cj.da
cj.dalton@queensu.ca or at 613-533-6000 ext. 75952 or the project supervisor, Dr. Nancy Hutchinson, hutchinn@queensu.ca or 613-533-3025. For questions, concerns or complaints about the research ethics of this study, contact the Chair of the Queen’s University General Research Ethics Board, Dr. Joan Stevenson, 613- 533-6081, email chair.GREB@queensu.ca.

Sincerely, CJ Dalton
Appendix C
Letter of Information for Parents

Listening to Students: Educational needs of youth with mild and moderate hearing loss.

Dear Parent/Guardian:

Your son/daughter has contacted me and expressed interest in participating in a research study looking the educational and social-emotional experiences of youth with mild and moderate hearing loss. This study is being conducted by CJ Dalton from the Faculty of Education at Queen's University in Kingston. The study is entitled Listening to Students: Educational needs of youth with mild and moderate hearing loss. This study was granted clearance by the General Research Ethics Board for compliance with the TCPS: Ethical Conduct of Research Involving Humans, and Queen's policies. CJ Dalton has worked extensively with and interviewed numerous individuals with varying degrees of hearing loss. She also has had a lived experience with hearing loss as an integrated student since early childhood.

The aim of this letter is twofold. First, it will describe the purpose and method of the research study. Second, it will request that both you and your son/daughter agree, in writing, to participate in the study. Please indicate your decision to participate in the study on the attached Letter of Consent and return it to CJ Dalton at your earliest convenience.

The purpose of the study is to gain a better understanding of the educational and social-emotional needs of youth with mild and moderate hearing loss. We know that students with hearing loss can experience challenges to their learning and to meeting their social-emotional needs in educational settings. Having your child share their experiences at school allows greater insight into the needs of youth with mild and moderate hearing loss.
to understand how teachers and school personnel can best support children and youth and their needs. To do this, I am planning to conduct two interviews and a brief questionnaire with your son or daughter.

Completing the brief questionnaire will take approximately 10 minutes. Each of the two audio recorded interviews that will last 45 minutes each. The questionnaire can be completed electronically or by pen and paper prior to the first interview or during the meeting time of the first interview. The questionnaire will look at how your son/daughter perceives his or her hearing loss and consists of 30 items designed to quantify the perceived consequences of hearing loss. Each of the interviews will focus on the experiences and challenges your child has had at school and how he or she has managed these experiences. I am also interested in what has been beneficial and what your child has found to be the most supportive in the school setting.

There is a very small risk that participating in interviews may upset your child considering that the topic may be considered by some to be sensitive or personal. If at any time your child becomes upset the interview will be stopped immediately. Your child can also request at any time to stop the interview. I, CJ Dalton will also ensure that if your child becomes upset during the interview that your child is supported until he/she is no longer upset and that resources are in place for follow-up if needed.

Agreement on your part to allow your son/daughter to participate in the study in no way obligates your son or daughter to remain a part of the study. Participation is voluntary, and your son or daughter, or you on their behalf, may choose to withdraw from at any time. You and your child are assured of confidentiality and anonymity and no identifying information will ever be used.
I intend to publish the findings of the study in professional journals and report them at academic conferences. I also hope to use the information to increase educators’ awareness and understanding of the needs of students who have mild or moderate hearing loss. Your son or daughter will choose a code name that will be put on all documentation to ensure privacy. At no time will the actual identity of your son or daughter be disclosed. The only exception to this is should your child disclose information that indicates a child under 16 is being harmed or at risk of being harmed, I am required by law to report that to the appropriate authorities.

Should further information be required before either you or your son or daughter can make a decision about participation, please feel free to contact me, CJ Dalton, at Queen’s University, Faculty of Education at cj.dalton@queensu.ca or at (613) 533-6000 ext. 75952. My project supervisor, Dr. Nancy Hutchinson can be contacted at Hutchinn@queensu.ca or 613-533-3025. For questions, concerns or complaints about the research ethics of this study, contact the Chair of the Queen’s University General Research Ethics Board, Dr. Joan Stevenson, (613) 533-6081, email: chair.GREB@queensu.ca.

Yours sincerely,

CJ Dalton
M.Ed. Candidate
Faculty of Education, Cognitive Studies
Queen’s University
Appendix D
Consent Form

For:
CJ Dalton
of the Faculty of Education at Queens University

Title: Listening to students: Educational needs of students with mild and moderate hearing loss.

I have read and retained a copy of the letter of information concerning the study Listening to Students and all my questions have been sufficiently answered. I am aware of the purpose and procedures of this study, and I have been informed that the interview will be recorded by audiotape.

I have been notified that participation is voluntary and that I may withdraw at any point during the study and I may request the removal of all or part of my data without any consequences to myself. I have also been told the steps that will be taken to ensure confidentiality of all information.

I understand that, upon request, I may have a full description of the results of the study after its completion.

I understand that the researchers intend to publish the findings of the study.
I am aware that if I have any questions about this project, I can contact CJ Dalton at 613-331-0319 or by email at 6cjd1@queensu.ca. I am also aware that for questions, concerns or complaints about the research ethics of this study, I can contact the Dean of the Faculty of Education, Dr. Stephen Elliot, 613-533-6210, or the Chair of the General Research Ethics Board, Dr. Joan Stevenson, (613) 533-6081, email: chair.GREB@queensu.ca.

I HAVE READ AND UNDERSTOOD THIS CONSENT FORM AND I AGREE TO PARTICIPATE IN THE STUDY.

Student’s name (Please Print):

Signature of Student: ________________________________

Date ________________ Telephone number: ________________

I HAVE READ AND UNDERSTOOD THIS CONSENT FORM AND I AGREE TO ALLOW MY SON/DAUGHTER TO PARTICIPATE IN THE STUDY.

Signature of parent/guardian: ________________________________

Parent/ Guardian Name: ________________________________

Date: ________________ Telephone number: ________________

Please write your e-mail or postal address at the bottom of this sheet if you wish to receive a copy of the results of this study.
Appendix E

Questionnaire

Student Questionnaire

1. How old are you now? ____________

2. How old were you when you were diagnosed with hearing loss? ____________

3. What type and degree of hearing loss do you have?
   (Please circle the words that applies to you)

<table>
<thead>
<tr>
<th>Degree of Loss:</th>
<th>Mild</th>
<th>Moderate</th>
<th>Moderately- Severe</th>
<th>Don’t Know</th>
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<tr>
<th>Type of Loss:</th>
<th>Sensorineural</th>
<th>Conductive</th>
<th>Other</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

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<tr>
<th>Is Your Hearing Loss:</th>
<th>Unilateral</th>
<th>Bilateral</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

4. How do you self-identify?

   Hard of Hearing  [ ]
   Hearing Impaired  [ ]
   Hearing Disabled  [ ]
   Deaf  [ ]
   Deafened  [ ]
   Other  [ ]

5. Do you use an assistive device?  YES [ ]  NO [ ]

6. If YES, What kind of assistive device do you use?

   Hearing Aid:  [ ] One  [ ] Two  [ ]
   FM system  [ ]
   Other  [ ]

__________________________________________________
**Student Questionnaire - page 2**

<table>
<thead>
<tr>
<th>Please Check ✓ the box that best applies to you.</th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>7. If you use an assistive device, do you use it at school?</td>
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<td>8. If YES, do you use it all day at school?</td>
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<td>9. Do your teachers know about your hearing loss?</td>
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<td>10. Did you work with an Itinerant / Special Education teacher because of hearing loss?</td>
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<td>11. Are you involved in any extracurricular activities?</td>
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<td>12. YES, does your coach, group leader etc know about your hearing loss?</td>
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<td>13. Do you know anyone else with hearing loss at school?</td>
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<td>14. If YES, do they have more hearing loss than you?</td>
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<td>15. Do you have a job or volunteer position?</td>
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<td>16. IF YES, did you tell your employer or supervisor about your hearing loss?</td>
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<td>17. Do you think you have been successful at school?</td>
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<tr>
<th>Please Check ✓ the box that applies to you.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
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<tbody>
<tr>
<td>18. Do you tell your classmates that you have Hearing Loss?</td>
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<td>19. Does having hearing loss keep you from getting involved in school activities as much as you would like (e.g., sports, clubs, drama)?</td>
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<td>20. Does having hearing loss make you feel different than your classmates?</td>
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<td>21. Do you ever wish people at school better understood</td>
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<td>what it is like having hearing loss?</td>
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<td>22. Do you have difficulty when you meet new people (e.g., understanding accents, learning new names)?</td>
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<td>23. Does background noise or people talking around you make it difficult for you to concentrate on your school work?</td>
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<td>24. Have you felt like your classmates know something that you may have missed hearing?</td>
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<td>25. Does having hearing loss ever bother or upset you?</td>
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<td>26. Are there times when you feel like school is harder for you because of your hearing loss (e.g. keeping up in class, understanding classmates, more pressure)</td>
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<td>27. Does your teacher ever do anything different in class because of your hearing loss?</td>
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<td>28. Do you wish your teachers would do something different in class to make it easier for you to learn?</td>
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<td>29. Do you think you get more tired at school than your typical hearing classmates?</td>
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<tr>
<td>30. Do you “bluff” or pretend to understand teachers when you don’t?</td>
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Your comments are appreciated:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you
Appendix F
Interview Guide

Interview questions:

Introduction
1. How come you wanted to be part of this research project? Is there anything in particular that you wanted to talk about?
2. Tell me about when you found out that you had hearing loss? – age, situation?
   a. What was the reaction in your household to the news that you had hearing loss?
   b. What were their thoughts do you think?

Personal
I would like to ask some questions to learn about how you feel… I would like to hear what it is like to be you.
1. Hearing loss is an invisible condition – what has that meant for you at school? (do you think that works in your favour or against you in school?)
2. Many people with hearing loss get to hear this statement: What are ya? Deaf? Has anyone ever said this to you?
3. What would be different for you if you didn’t have any hearing loss?
4. Tell me a story about an awkward, embarrassing or frustrating moment that you had at school where your hearing loss played a role?

Teachers
Ok take me back to your days in classrooms with all the teachers you’ve had over the years
1. What are some of the positive things that teachers have done for you at school?
   a. To make you a more successful learner?
   b. To improve your experience?
2. If you were a teacher how would you go about helping another student with hearing loss?
   a. What might you do differently than teachers you’ve had?
   b. What advice could you offer teachers about students with MMHL, c. What qualities would you have if you were a teacher? What could you say or do that would be helpful?
3. What goes through your mind when you get a new or substitute teacher who doesn’t know you and who you haven’t heard before?
4. Take me back to a situation where you might have been distracted or missed something that everyone else caught in class or at an assembly or something.
   a. What did that feel like?
b. Did you ask your teacher to repeat it in front of the class or try to figure it out yourself, or ask a neighbour or friend?
c. What would need to change before you would interrupt or let people know you missed it?

5. Given your hearing loss what are some of the things you wish teachers would not do in class? (i.e., turning out lights while talking, bring attention to your hearing loss).

Peers
I bet you can tell me some stories about things that have happened with friends and classmates at school.
1. Take me back to the first time you explained that you had hearing loss to someone in class.
   a. How about other times?
   b. How did that unfold?
   c. What response did you get?
2. What are some of the ways that your peers have been helpful to you at school in terms of your hearing loss? (i.e. Buddy to check in with or someone who was a bit empathetic)
3. What happens when you are hanging out with friends and you miss something?
   a. For example everyone starts laughing or saying “no way”?
4. What would change if there were more students with hearing loss in your class?
   a. Tell about some times when you have had to explain your hearing loss to classmates?
   b. What response did you get?
   What do you think are some of the assumptions that people at school have about students with hearing loss?

School
I’m interested in your experiences and your stories about your school day
1. Tell me about how you think having hearing loss made your day at school different than someone else’s day?
2. What extracurricular activities are you involved in? Sports, clubs??
   a. Why do you participate in this activity?
   b. Is this right before or after class/school?
   c. If not involved – why?
3. What works for you or helps you when you are playing your sport or participating in your club? (e.g., watch team mates closely, catching what the coach says, missing the whistle)?
4. What are some situations at school that you think you might avoid or “opt out” because you have hearing loss?
   a. Lots of teachers get students to do group work in class…what have been your experiences? (i.e. everyone is talking at once)
   b. What response did you get?
5. If you could design a perfect place to learn what would you say are the best conditions?
Think about noise, the people, the types of activities etc.

6. Now you’ve told me about the perfect place how about places or condition that are the opposite?

7. Is there any part of the school day that is more difficult or uncomfortable for you because of your hearing loss (e.g., Gymnasium, late in the day, Assemblies)

**Disability**

**Now some questions about your hearing loss specifically**

1. When you think about jobs or careers, which ones have you been interested in but figured maybe you would have difficulty because of your hearing loss?

2. When I say “you have a hearing disability”- what comes to your mind?
   a. Accurate, wrong, frustration, anger, proud

3. Describe a situation in class where you had to do things differently because of your hearing loss?
   a. Was there a time you had to deal with something that you thought other kids didn’t have to deal with?

4. What might go through your mind when you see other students with a disability (maybe even hearing loss) at school? What do you do?
   a. Did you try to get to know them, keep your distance, do feel like you can relate in any way?

5. What do you think is the general attitude about people with hearing loss? (Good or bad, do they make assumptions) i.e., that you are deaf?

**Final:**

1. What might you tell a good friend or even your child someday, if they just learned that they had hearing loss just like you? What could they expect or what should they be prepared for?

2. Describe your hearing loss for someone who doesn’t have a clue about it?

3. If you were the teacher how would you approach or work with a student who has hearing loss like you?

4. One of the things that I get to do which is pretty cool ….I like to take a message from you, a student with hearing loss to them, teachers. What message would you like me to take to them given that you are more of an expert on this than I am? What can I tell them?