VOICES UNHEARD: THE ACADEMIC AND SOCIAL EXPERIENCES OF
UNIVERSITY STUDENTS WHO ARE HARD OF HEARING

by

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE STUDIES

(Department of Educational Studies)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

June, 2003

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ABSTRACT

The nature of the university experiences of students who are hard of hearing and the impact of students' hearing losses on their experiences were the foci of the present research. To date, there have been few studies capturing the voices of students who are hard of hearing. Descriptive categories from Tinto's retention model (1987) provided a theoretical framework for the study, along with the use of the agency-structure nexus (Andres, Andruske & Hawkey, 1996), which focuses on the dynamics between an agent and the environment. Research questions were formulated about students' academic, social, transition, and disability service experiences in university, as well as their identity construction. This study also considered the impact of students' hearing losses on their university experiences, the extent to which students' experiences compared to other students, and the relevancy of Tinto's retention model in capturing their disability dimensions.

An interpretive research methodology was adopted because it emphasizes the importance of individuals' experiences as perceived by the participants themselves (Marshall & Rossman, 1999; Smith, 1989). Fourteen university students from three urban universities shared their experiences in interviews, and 11 of them maintained a journal for a three-week period. Interviews were conducted twice with each student.

A key finding from the study is that students who are hard of hearing are similar to other students in many respects: social patterns, discipline-related differences, and transition experiences. Nonetheless, they have different experiences because they do not always hear. They make academic choices based on having hearing losses such as class choice, seating position in a classroom, and courseload. They are often "visitors" to the classroom because of

participation barriers. The visitor analogy also applies in social situations where participation is frequently challenged by the environment and the dynamics of social engagement.

Disability-related accommodations helped many of the students to function better in academic and social situations, but did not eliminate all of their disadvantages.

The identity construction of students was complex. Students strove to be part of the hearing world and, therefore, to function like other students; at the same time, they encountered differences because of their hearing losses. Hearing loss was found to constitute elements of habitus, defined by Bourdieu (1977) as a way of being, because of its pervasive impact, and, at the same time, it was not the only force in students' lives.

Because of their identity construction, students who are hard of hearing are predisposed to "fit" into the norms and expectations of universities, and, at the same time, institutions are disposed to have students adapt in this manner. Yet, this study also showed that there was capacity for change when crisis situations arose. These findings supported the adoption of the agency-structure nexus in the analysis of students' university experiences, using the descriptive categories from Tinto's retention model to explore these experiences. As well, findings lend support to adding disability-related components to Tinto's model.

Recommendations for practice arising from this study called for a greater emphasis on the classroom participation of students who are hard of hearing, increased disability training for instructors, more support for disability service offices, new hearing technology, better classroom acoustics, and mentoring programs.

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ACKNOWLEDGEMENTS

The completion of this thesis would not have been possible without the constant moral support of my husband, Garry Culhane. He offered encouragement of the attainment of this goal and spent countless hours reading drafts to provide constructive criticism. I am also thankful for the support of my mother, Lena Warick; sister, Beverly Couselan, and brother, Dennis Warick, and their families.

I am indebted to my thesis supervisors, Dr. Lesley Andres and Dr. Janet Jamieson, and thesis committee member, Dr. Tom Sork. Their belief in my ability to complete this dissertation was an important source of inspiration. Their direction and suggestions guided me to this final product. Their scholarly excellence gave me a standard to aspire to reach.

I am thankful to my place of employment, the Disability Resource Centre of the University of British Columbia, for release time at the initial stages of my doctoral studies. As well, I appreciate the continuing support of staff members during the completion of this project.

Finally, I am grateful to the 14 students who volunteered to take part in this study. The completion of this thesis owes much to the desire and obligation to tell their stories, to make their voices heard.

DEDICATION

This study is dedicated to my father, Felix (Phil) Warick and my sister, Gloria Relkey, who both passed away in 2001. My father was a role model and source of inspiration during my life; he passed on to me a love of learning and a strong work ethic, necessary in the completion of a thesis. My sister was my friend and supporter throughout my life. I owe both of them much and take this opportunity to acknowledge them.

CHAPTER ONE

INTRODUCTION

Research Problem

The participation rate of persons with disabilities in post-secondary education falls considerably below the rate for the general population. Whereas 30.6% of the population aged 18-to-21 years attended university in 1998-99 (Statistics Canada, 2000), the participation rate in post-secondary education of students with disabilities is calculated at anywhere from .05 % (Hill, 1992) to 3.5% (Walker, 1999). The latter figures do not separate out participation rates for universities, which traditionally have been lower than those for colleges.

Reasons for unequal participation rates between persons with disabilities and the general population may have to do with individual characteristics, academic reasons, and socio-cultural factors. Attitudinal barriers and a lack of access to the curriculum and the environment are among the socio-cultural factors that could account for participation differences. If these difficulties have been prevalent in earlier forms of schooling, persons with disabilities may not even be in a position to make a transition to post-secondary education, whether to college or university.

Those individuals with disabilities who do enroll in a post-secondary institution are exceptional in having progressed to higher education. Their retention and successful completion are important to them as individuals, to their respective institutions, and to society as a whole. Learning from their experiences can help inform us as to how to promote post-

secondary participation and subsequent completion for other students facing similar challenges.

Students who are hard of hearing comprise one of the populations of students with disabilities. On the surface, they look and function like any other students, but they are not like other students in one key respect: they have hearing losses. Yet, because they communicate by oral means and seek to function as if they were hearing (Israelite, Ower, & Goldstein, 2002), their hearing loss is often invisible, unnoticed, and unknown to others.

Persons who are hard of hearing are an overlooked group (Belknap, 1996). Historically, the term “hearing impaired” has been used to refer to all persons with hearing losses, but the term masked the differences among individuals within the category (Hughes, 1996). Hearing impaired can refer to any level of hearing loss, from the profound end of the continuum to the mild end. Individuals at the profound end of the continuum are unable to hear, even with the use of technological devices such as hearing aids whereas persons with mild losses can often function without requiring technical support.¹

The needs of profoundly deaf individuals for communication, language acquisition, and socialization have been the focus of much social and educational attention. Historical debates and conflicts over the use of oral methods of language acquisition versus sign language dominated much of the education system for many years. By contrast, persons with partial hearing losses communicated by oral means, and were considered able to manage within regular school settings and in hearing settings with the provision of hearing aids and other technological supports. There has been far less controversy concerning the

¹ A description of the various levels of hearing losses is provided in the literature in the discussion on identity in the next chapter.

communication needs and abilities about this group. Dahl (1987) noted that:

The hard of hearing label does not connote the same degree of disability or of separation from society as does the term “deaf”. Because the disability is less dramatic and more hidden, there has been considerably less interest and fewer research studies produced to induce both professional and public understanding. (pp. 39-40)

However, in recent years, the condition of being hard of hearing has been recognized as being a distinct disability. Individuals who are hard of hearing are recognized as having their unique challenges and issues. A national organization of persons who are hard of hearing was formed in Canada 20 years ago to provide a forum for such individuals to educate themselves and others about their needs and issues. This historical development sheds light on societal changes regarding the identity of persons who are hard of hearing.

Scholarly attention devoted exclusively to persons who are hard of hearing is also quite recent. With respect to the experiences of this group in post-secondary education, it is known that persons who are hard of hearing encounter difficulties with hearing instructors and classmates in the classroom, and with participation in social settings such as cafeterias, auditoriums and campus walkways (Warick, 1994a). They may encounter less than knowledgeable or understanding instructors (Schein, 1991; Stinson, Scherer, & Walter, 1987; Swartz & Israelite, 2000; Warick, 1994a) and have academic content gaps in their learning (Schein, 1991; Warick, 1994a). However, little is known about the full range of their experience in university.

There is a body of literature about students who are deaf or hearing impaired. The latter work often does not separate out students who are hard of hearing from those who are

deaf. Therefore, it is difficult to know if the findings pertain to both groups, or mostly to students who are deaf. Furthermore, much of the literature about students who are deaf is focused on specialized educational settings, a milieu which is unfamiliar to students who are hard of hearing, most of whom are educated in regular schools. However, in recent years, more students who are deaf are also being educated in regular settings, and some new studies are focusing on this population (Menchel, 1996).

The lack of research about students who are hard of hearing, especially those attending post-secondary educational institutions, means that little is known about the nature of their university experience. Little is known about their experiences within the university culture, with their academic programs, and with the social aspects of university life. Consequently, there are knowledge gaps as to what motivates these students to attend and continue in university. There is a lack of information about what constitutes a positive university experience for them and, conversely, a negative one. In addition, we do not know if their partial hearing plays a role in the quality of their experience and, if so, in what way. Furthermore, we are unable to know in what respects they are similar to or different from the rest of the student population.

Although there is little information about the retention and nature of the university experiences of students who are hard of hearing, there is a wealth of material, mostly empirical in nature, about students in general. Of late a few qualitative studies have contributed to our knowledge about students' perceptions of their post-secondary experiences (Andres, 1992, 1993, 1996, 2001; Andres, Andruske & Hawkey, 1996; Hawkey, 2000). Furthermore, considerable work has gone into developing and critiquing theoretical

frameworks to explain the experiences of students, mostly in relation to their staying in school (Andres, 2001; Andres et al., 1996; Bean, 1980, 1982, 1985; Bean & Metzner, 1985; Benjamin, 1994; Benjamin & Hollings, 1995; Pascarella, 1980; Pascarella & Chapman, 1983a, 1983b; Spady, 1970, 1971; Stinson et al., 1987; Terenzini & Pascarella, 1977, 1978; Tinto, 1975, 1982, 1987, 1993).

Most commonly cited in the literature is Tinto's retention model, initially developed in 1975 and then revised in 1987. His model provides a framework for considering the factors which contribute to the academic and social integration of students and, hence, their retention. The model considers characteristics of an individual and the nature of both formal and informal academic and social experiences that a student has in a post-secondary institution. An individual's level of commitment to persist in university is related to the degree of integration experienced, both academically and, to a lesser extent, socially.

The use of the categories in Tinto's model for this research was informative, rather than prescriptive, with the goal being to fully understand the experiences of university students who are hard of hearing. Furthermore, the findings of other researchers have informed the present study. Bean and Metzner (1985) and Metzner and Bean (1987), for example, clarified that Tinto's emphasis on social integration is not applicable to non-traditional students. Pascarella (1980) elaborated on institutional factors that affect retention. Andres et al. (1996) have suggested that the relationship between an individual and an institution is not static, but dynamic, namely, that there is an agency-structure nexus.

Stinson et al. (1987) have considered the importance of disability-related dimensions for the post-secondary retention of students who are deaf. They added two disability-related

dimensions to a retention model as a result of their research on factors affecting the retention of students who are deaf. These factors were: (1) the extent to which a student had attended a mainstreamed high school, and (2) the nature of a student's communication skills. Other researchers found that students who had decided on their major in their first year enhanced their retention (Foster & Elliott, 1986). On the reverse side, those students who were less likely to continue in post-secondary education were faced with communication difficulties (Foster & Elliott), were socially dissatisfied (Stinson et al., 1987), and were unable to decide on a major area of study (Scherer & Walter, 1988). The applicability of these findings to students who are hard of hearing is unknown because of differences between them and students who are deaf. Nonetheless, the findings about students who are deaf strengthen our understanding of issues affecting student experience and retention, and suggest the need for further exploration about their application for other student groups.

Purpose

The purpose of my investigation was two-fold. The first objective was to explore what it means to be a university student with a hearing loss and to consider the impact of a hearing loss on a student's academic and social experiences. The impact of disability-related supports and services, as well as supports provided by family members and non-university peers, were also considered. The second objective was to examine the extent to which retention models and research serve to explain the university experiences of students who are hard of hearing.

In keeping with my purpose, eight research questions guided this study:

- 1) How do the participants define themselves in terms of hearing loss?

- 2) What transition-to-university issues do students who are hard of hearing face?
- 3) What are the academic experiences of university students who are hard of hearing?
- 4) What are the social experiences of university students who are hard of hearing?
- 5) How does being hard of hearing impact on students' academic and social dimensions of university life?
- 6) To what extent, and in what way, do disability-related supports and disability issues impact on the experience of students who are hard of hearing?
- 7) To what extent are the experiences of students who are hard of hearing similar or dissimilar to those of other students?
- 8) To what extent do existing retention models encapsulate the experiences of students who are hard of hearing? Do existing retention models describe the experiences of these students? If not, in what ways are models insufficient and, hence, require modification?

To answer the foregoing research questions, I interviewed 14 university students who are hard of hearing to learn from them about the nature of their campus experiences. My research design was interpretive because this paradigm emphasizes the importance of understanding and comprehending the lived experiences of individuals (Greene, 1990; Lincoln, 1990; Lincoln & Guba, 1985, 2000; Marshall & Rossman, 1999; McCutcheon, 1990). An interpretive approach strives for “rich” and “deep” descriptions of the experiences of others within their context; these descriptions are not mere recitations of participants' thoughts; they result from a researcher's sifting through perspectives to uncover meanings and integrate salient points.

In the process of interpretive research, the researcher is recognized as being intertwined with the research process insofar as her or his values are imbedded in the process and affect the description of research results; at the same time, intellectual rigor is required in reflecting field findings. The recognition of the researcher role is considered desirable in interpretive research; in my case, I believe that my own experiences as a person who is hard of hearing, as a university student, and as a university disability service provider contributed to my knowledge and understanding of the issues germane to this research study.

Significance of the Study

There are five ways in which the findings arising from this research have potential significance. First, my research offers a contribution to our understanding of the university experiences of students who are hard of hearing. This understanding is enriched by a holistic picture of students' academic, social and cultural experiences, along with an understanding of the role that students' hearing losses play in these experiences. The study is one of the first to describe in detail the experiences of university students who are hard of hearing

Furthermore, the study is one of the first to describe the experience of persons who are hard of hearing, albeit in a post-secondary setting, and, therefore, potentially sheds light on the nature of simply being hard of hearing. This aspect could be informative about the experiences of persons who are hard of hearing in other contexts, such as the labour market; however, it is acknowledged that each context is different and, therefore, caution needs to be applied in considering relevance of findings from this research to other milieus.

In a third area of significance, the study is one of the few undertaken concerning students with a disability in a university and, thus, there are some issues that have implications for students with other disabilities. There are few studies of an interpretive nature about the post-secondary experiences of students, and research of this type may be expected to contribute to insights in a general sense and potentially contribute to what Weiss (1980) has described as “knowledge creep”² about our understanding of students with disabilities.

Fourth, the results of my study may assist in identifying policies, programs, and services for the retention of university students who are hard of hearing. From the body of information collected about the issues and concerns of these students, areas requiring program or other interventions are identified at the conclusion of this study. Thus, energies for interventions can be targeted, based on this research.

Fifth, this study may shed light on the usefulness of existing retention models for students who are hard of hearing and other students within a disability population. It is hoped that findings illuminate whether existing retention models are sufficient to explain the experiences of students who are hard of hearing or whether further research is required to modify retention models to deal with disability-related issues and aspects.

Overview of the Thesis

In the next chapter I examine the literature about retention models and the post-secondary experiences of students in general. I connect these findings to what is known about the educational and socio-psychological experiences of students with hearing losses.

² Knowledge creep refers to the building up of a body of knowledge about a given subject.

Chapter Three describes the research design and methods for my study; in particular, the use of an interpretive framework is discussed. Remaining chapters describe the research results from interviews with study participants as well as their journal entries. There are four chapters detailing results: identity and transition issues are explained in Chapter Four; academic experiences are considered in Chapter Five; in Chapter Six, social experiences are related; and, finally, disability-related accommodations are discussed in Chapter Seven. The thesis closes with a discussion of research findings, followed by recommendations.

CHAPTER TWO

LITERATURE REVIEW OF RETENTION MODELS AND INDIVIDUAL EXPERIENCE IN POST-SECONDARY EDUCATION

In this chapter the literature regarding the participation and retention of students in post-secondary education, with particular emphasis on the university sector, is reviewed. Retention theoretical frameworks, including Tinto's (1987) model of retention, are examined. This is followed by a discussion of literature findings about various aspects of retention: background characteristics, the academic system, the social system, and institutional factors. In addition to the review of findings about students in general, those pertaining to students with hearing losses, whether deaf or hard of hearing, are emphasized, including their use of disability services in post-secondary education. The use of disability services is an issue that is pertinent to the academic and social success of students who are hard of hearing and, yet, is one that is not covered in the existing retention literature to any significant degree.

Before proceeding, one comment is necessary about the population under study. The designation of a person as being hard of hearing³ is not straightforward but, rather, complicated, as discussed subsequently in this chapter. Definitional complexity spills over to the interpretation of literature findings pertaining to this population. A problem stems from the plethora of terms used to describe persons who are hard of hearing: person with a hearing loss, hearing impaired, hearing deficit, hard of hearing, oral deaf, and deaf. Sometimes, the aforementioned terms refer only to persons who are deaf and other times the terms also, or

³ Throughout the thesis, the terms person "who is hard of hearing" and person "with a hearing loss" are used interchangeably. More than one term was necessary for style reasons.

only, refer to persons who are hard of hearing. As a result, unless otherwise specified, it may be difficult to know to what population a researcher is referring. For example, in using the term “deaf,” one researcher may be referring to persons who are deaf or Deaf⁴, while another may also mean those who are hard of hearing. Thus, findings pertaining to deaf students were also included in this literature review, either to illuminate the subject or for their possible relevance for the hard of hearing population.

Theoretical Frameworks

Retention Models

The considerable body of research undertaken about the nature of the post-secondary experience of students has most often been empirically-based, focused on enhancing students' persistence in university and, conversely, examined factors resulting in students' departure from university. Theoretical frameworks have both resulted from the empirical findings and have guided the nature of the research. Foremost among the frameworks guiding research in this area is Tinto's Longitudinal Model of Institutional Departure⁵ (1987) shown on the next page (Figure 1).

⁴ The capitalized “Deaf” refers to members of the Deaf community who consider themselves a cultural designation; because of the cultural definition, the use of the term Deaf or Deaf persons is common. The lower-case “deaf” refers to individuals with a profound hearing loss who do not take on a cultural definition. As noted by Corker (1996), it is not always a simple matter to use terminology consistently, a difficulty reflected in the use of terms in the literature. In this thesis, I use Deaf when it is obvious that the person is part of Deaf culture or the original source uses this description, otherwise the lower-case deaf is used.

⁵ Tinto initially developed the model in 1975 and modified it in 1987. The author was contacted and conveyed that his 1987 version best describes his model.

Figure One
Longitudinal Model of Institutional Departure
Tinto, 1987

Tinto's retention model provides a comprehensive, longitudinal approach to examining factors contributing to the academic and social integration of university students and, hence, their retention. Tinto's model considers both the individual and the institution and examines the "fit" between the two. In looking at the individual, Tinto considers family background (including socioeconomic status, quality of family relationships, and parental values), individual attributes (race and gender), and pre-college schooling (secondary school Grades and course of study). His consideration of the academic and social system of an institution takes into account both its formal and informal aspects. The academic system includes faculty and staff interactions, both formal and informal, as well as the student's academic performance. The social system consists of formal and informal peer group interactions and extra-curricular activities.

According to Tinto, a student's initial commitment to a post-secondary institution is partly affected by individual characteristics. Once at university or college, the strength of the student's commitment depends on his or her academic and social integration.

Drawing on the work of Spady (1970), Tinto's model is based on the proposition that a university departure represents a lack of institutional integration in the same way that Durkheim (1897/1951) explained suicide as a lessened connection to society. Tinto also applied exchange theory to his model to explain a student's decision-making process about whether to persist or drop out of school. Students will persist in post-secondary studies when they perceive or find it more beneficial to do so than to drop out. Key to this model is that perceptions are as important as reality. "Departure hinges upon the individual's perception of his/her experiences within an institution of higher education. The model takes seriously the

ethnomethodological proposition that what one thinks is real, has real consequences” (Tinto, 1993, p. 136).

Tinto developed his model in 1975, and then modified it in 1987 to add external commitments. External commitments affect the ability of the individual to commit to the goal of post-secondary completion and can influence any intentions of dropout or persistence. He also added the importance of intentions to the drop-out process building on work by Fishbein and Ajzen (1975), who suggested that intentions are predispositions based on beliefs.

Tinto also updated his model to take into account concerns expressed that depicting social and academic systems of universities⁶ as two separate boxes masked the fuller relationship between these two spheres of activity. In his revision, academic and social systems appear as two nested spheres to more accurately capture the ways in which social and academic life are interwoven and the ways in which social communities emerge out of academic activities in the classroom.

Tinto’s retention model was intended to be predictive of the retention and persistence of students, in other words, to be used to predict factors that could contribute to the continuation of a student’s academic career. Pascarella and Chapman (1983b) found that although Tinto’s model has predictive validity, it explains only a relatively small proportion of the variance in voluntary, freshman-year persistence/withdrawal decisions. They concluded that “perhaps a major portion of persistence/withdrawal behavior is so idiosyncratic, in terms of external circumstances and personal propensities, that it is difficult to capture in any

⁶ Tinto refers to colleges; in the Canadian context, universities would be more equivalent to U.S. colleges than community colleges. Other U.S. scholars also use college when, in Canadian terms, the closest equivalent institution would be universities. For ease of understanding I have substituted university for college throughout the thesis.

rational explanatory model” (p. 99).

Despite the predictive difficulties, Tinto’s model, at the very least, has utility as a framework for considering student experience in a more general sense, in terms of describing students’ academic and social experiences, as well as students’ individual characteristics and motivations to persist in university. Its strength is its parsimonious, explanatory framework for guiding inquiry about student persistence. Furthermore, the emphasis of Tinto’s model on students’ perceptions lends itself to a study such as mine, which is based on students’ accounts of their post-secondary experiences.

Nor does Tinto’s model exclusively focus on student drop-out or persistence. The components of his model can be used to discuss many themes in post-secondary education. Other researchers have successfully employed Tinto’s model to consider students’ reports of academic skill acquisition, students’ personal change, and change by students in their fields of study (Pascarella & Terenzini, 1991).

Despite its strengths, Tinto’s model has three possible weaknesses: first, the type of student to which the model applies; second, the dynamic interplay between the individual and the organization on the individual, and, third, the disability-related aspects to retention. Each of these will be discussed subsequently.

With respect to the issue of student type, Bean and Metzner (1985) and Metzner and Bean (1987) have made a significant contribution by distinguishing the retention patterns of traditional versus non-traditional students. Traditional students are usually defined as being the 18-to-24-year-old cohort, but age alone is insufficient to define non-traditional students. Bean and Metzner identified three factors which must be considered in a definition of non-

traditional students: 1) they usually do not live in a college residence and therefore must commute to classes, 2) they are older, which means having already developed values and having been socialized in young adulthood, and 3) they attend part-time, which reduces the amount time the student has for interactions with other students and faculty. Other factors which may be involved have to do with ethnicity, gender and socio-economic status.

However, Bean and Metzner also noted that “the difference between traditional and nontraditional students is a matter of extent; traditional and nontraditional students cannot be easily classified into simple dichotomous categories” (p. 488). Andres and Carpenter (1997) noted that non-traditional students are an eclectic category, which includes transfer students, older adult learners, commuters, part-time students, graduate students, women, students with disabilities, and ethnic minorities.

The key difference between traditional and non-traditional students in terms of their responses to retention is that non-traditional students give more emphasis to academic than social reasons in any cost-benefit analysis of their education. They “emphasize utilitarian more than social outcomes” (Bean & Metzner, 1985, p. 489). Bean and Metzner’s review of the literature led them to conclude that social integration is rarely a major actor in attrition decisions for non-traditional students. They developed a retention model that contained many of the same components as Tinto’s model, but with different emphasis, depending on the student. Bean and Metzner proposed that four sets of variables affected dropout: (1) academic performance measured in terms of past and present grade point average (GPA); (2) intent, which is influenced by psychological outcomes and academic variables; (3) defining variables such as age, enrolment status, and resident status, as well as background variables such as

educational goals, high school performance, ethnicity, and gender; and (4) environmental variables, which are non-institutional factors such as family responsibilities.

The second area of concern pertaining to Tinto's model relates to the individual vis-à-vis the institution. With respect to the institution, Pascarella (1980) contributed an understanding of organizational characteristics and defined these to include the following: faculty culture, organizational structure, institutional structure, institutional image, administrative policies and decisions, institutional size, admission standards, and academic standards. In Pascarella's model, student background characteristics and organizational features of the institution shape the university's environment. In turn, these clusters influence students' interactions with faculty and other students.

Another contribution came from Bean (1980), who depicted a causal relationship between background characteristics and organizational determinants. He drew from theories on work by adapting Price's (1977) model of employee turnover in industrial organizations and stated that post-secondary students' satisfaction or dissatisfaction could result in institutional commitment or withdrawal.

Taking a holistic approach, Benjamin (1994) identified eight domains that express a dynamic relationship between the individual and his or her environment. These domains, which influence a student's subjective well-being, include the following: satisfaction (cognitive), happiness (affective), multiple life domains (on and off-campus), short-term past, objective circumstances, institutional circumstances, psychosocial factors, and meaning structures. Issues such as health status, personal finances, and life events are incorporated into his model. Benjamin and Hollings (1995) developed a quality of life model that considers a

myriad of factors pertaining to student experience and looks at the dynamic relationship between the individual and the environment.

Agency-Structure Nexus

The implication of Tinto's retention model appears to be that the individual student is an autonomous actor in the environment, without interplay between the student, as an agent, and the environment. To be sure, the environment is identified, but without an explication of the dynamic relationship between the environment and student and vice versa. This is the third concern with Tinto's model.

Coleman (1986) was among those to reject what he termed "individual behaviorism"; instead, he called for "a formal theoretical model that relates individual actions to systemic functioning" (p. 1332). Giddens (1984) endeavored to develop a theory of dualism between human agents and structure, which negates the depiction of them as being mutually exclusive, independent sets of phenomena. Agents have a capacity for independent action; at the same time, many of the rules of society are routinized, such as the rules of language. Some of these are taken for granted, but Giddens argued "that many seemingly trivial procedures followed in daily life have a more profound influence upon the generality of social conduct" (p. 22). Rules are part of the structure of society, and systems are the reproduced relations between agents and structures. Thus, there is a constant, dynamic tension between structures and agents. Giddens used the term "structuration" to describe the conditions governing the continuity or transmutation of structures and, therefore, the reproduction of social systems.

Bourdieu (1977, 1984, 1991) has also decried the separation of structure and agents, and has developed a “field of forces” concept to examine social structures, using the explanatory formula of “[habitus] (capital)] + field = practice” (Bourdieu, 1984, p. 101). “Habitus” is defined by Bourdieu as “a way of being, a habitual state (especially of the body) and, in particular, a predisposition, tendency, propensity or inclination” (1977, p. 214). Thus, habitus organizes the way one acts, and also provides a way of structuring conditions of existence. “The habitus also provides individuals with a sense of how to act and respond in the course of their daily lives. It ‘orients’ their actions and inclinations without strictly determining them” (Thompson, 1991, p. 13). The orientation is in relation to the mental structures through which individuals perceive the social world (Bourdieu, 1990). “Thus, habitus implies ‘a sense of one’s place’ but also a ‘sense of the other’s place’ ” (Bourdieu, 1990, p. 131).

“Capital,” as used by Bourdieu (1984), refers to the resources and powers of an individual or class, which can take the form of economic, cultural, social or symbolic capital. The volume of capital and its type influences how the habitus relates to the field of forces. Social capital is defined as social obligations or connections. Cultural capital relates to cultural aspects such as passing onto children the value of reading in a family. Bourdieu has applied his concepts to education and noted that social and cultural capital serves as means of the indirect reproduction of the dominant culture in the school system and indirectly affects educational intake and outcomes.

Bourdieu (1991) uses the concept of “field” to refer to entities, such as a political space, a religious space, and an educational space. “I call each of these a field, that is, an

autonomous universe, a kind of arena in which people play a game which has certain rules, rules which are different from those of the game that is played in the adjacent space” (p. 215).

Every field is the site of a more or less openly declared struggle for the definition of the legitimate principles of division of the field (Bourdieu, 1991). Thus, there is a struggle for positions within a field, and, so, a “field of struggles.” “Positions are determined by the allocation of specific capital to actors who are located in the field. Positions can interact with habitus to produce different *postures* (*prises de position*), which have an independent effect on the economics of ‘position-taking’ within the field” (Harker, 1990 p. 8). Thompson (1991) explains that individuals who participate in these struggles will have differing aims – some will seek to preserve the status quo, others to change it – and differing chances of winning or losing, depending on where they are located in the structured space of positions.

To apply the field of forces concept to universities, educational institutions can be conceptualized as a field and both the given institution and the people in them create a field of forces and a field of struggles which tends to either transform or conserve the field as a field of forces (Andres et al., 1996). Harker (1990) noted that education is a field in which agents struggle for capital (credentials), but the struggle is not the same for all participants.

“Educational institutions are structured to favor those who already possess cultural capital, in the form of the habitus of the dominant cultural fraction” (Harker, 1990, p. 87).

Agents (i.e. students) enter post-secondary institutions enabled or constrained by varying levels of competencies, resources and strategies as they proceed through university (Andres et al., 1996). Although students have capacities for action, they encounter aspects of

university life, including people, policies and practices, both within and outside of the institution, that enable or constrain their ability to integrate socially and academically.

Students are defined by their *relative positions* in this space; this is, relative to faculty, staff, resources, policies, and practices of a given post-secondary institution. Students' relative positions are also defined by other relevant "fields," such as family and work. (p. 5)

Thus, agents who have greater amounts of capital than their peers are likely to be more successful in the struggle for position in the field of education, all other things being equal. However, despite the structural components to his theory, Bourdieu (1984) maintained that it is not deterministic and that individuals have the ability to change the field and events.

The use of the concept of field of forces, or to use another term, the agency-structure nexus, which has been expressed by Andres et al. (1996), offers a perspective that deals with a weakness in previous retention models, namely, lack of attention to underlying structural influences. The concept of agency-structure nexus recognizes that there are structural impacts on the student. At the same time, it recognizes that individuals are agents who interact with the system, thereby also influencing the nature of the system. This concept offers a useful framework for understanding structural impacts and is compatible with my use of the descriptive categories for student experience, retention and persistence, developed by Tinto (1975, 1987, 1993) and further elaborated on and modified by Bean (1980), Bean and Metzner (1985), and Pascarella (1980).

Disability and Retention Models

One further issue requires attention, namely the relevance of retention and subsequent models for students with disabilities and, in particular, for students with hearing losses. The issue of how a student's disability relates to retention has rarely been discussed in the literature. An exception is the research by Stinson et al. (1987) who analyzed data on the persistence of 233 deaf students enrolled in the 1984-85 academic year freshman class at the National Technical Institute for the Deaf.

Stinson et al. (1987) collected data from three sources: NTID records, such as students' GPA; communication and achievement tests given to students; and questionnaires about background factors and attitudes that were distributed to students. Using path analysis techniques, the researchers considered factors contributing to persistence/withdrawal by identifying four predictor variables: academic performance, ability in oral skills measured by speechreading abilities, social satisfaction, and participation in college-sponsored extracurricular activities. Background predictor variables included high school academic achievement (Stanford Achievement Test results), proportion of elementary and secondary education in mainstreamed settings, and participation in high school-sponsored extracurricular activities.

Stinson et al. (1987) noted that freshman students who expressed greater social satisfaction were more likely to persist than those whose social goals were not met. As well, they found that social satisfaction and speechreading performance were related and reflected the tendency of students who are more comfortable with a hearing environment to

demonstrate better communication skills. Two groups of students were at risk: those who had unmet social goals and, at the other extreme, those who were too socially engaged in extra-curricular activities.

Stinson et al. (1987) also found that distance from home was a significant retention factor and suggested that those closer to NTID could more readily get a break from adjusting to a new environment by home visits. "For many students, there may be no such breaks, thus resulting in greater dissatisfaction with college" (p. 254).

Finally, the researchers saw no correlation between students' grades and persistence but noted that their study was of freshman year students and grades may be more likely to affect persistence in upper years. As well, they noted that NTID is a unique institution with four program levels, which may result in students' self-selecting the appropriate level for them, these levels being bachelor's degree, Associate of Arts degree, diploma, and certificate.

In terms of a contribution to retention theory, the model by Stinson et al. (1987) proposed two disability-related factors, namely, the extent to which students were mainstreamed in previous levels of schooling and their speechreading abilities. The researchers did not endeavor to suggest that these factors would be relevant other than for the students they studied attending a particular post-secondary institution. The extent to which these factors are relevant for students who are hard of hearing is unknown. However, because such students already attend mainstream schools, it is likely that the mainstream factor would be less significant for them than it would be for students who are deaf. Speechreading ability is likely to vary from individual to individual; the extent to which it is a significant factor in the retention of students who are hard of hearing has not been assessed.

The rest of this chapter will consider the three major areas of Tinto's retention model: student background characteristics, the academic system, and the social system.

Organizational issues are identified in the final section of this chapter.

Student Background Characteristics

Students come to a post-secondary institution with a range of background characteristics (e.g., sex, secondary school performance, family background, and personality orientations). These characteristics "influence, not only how the student will perform in college, but also how he or she will interact with, and subsequently, become integrated into an institution's social and academic systems" (Pascarella & Chapman, 1983a, p. 25). This section will discuss several characteristics and issues, starting with the identity issues of persons who are hard of hearing.

Identity

There are three ways of viewing the designation of being hard of hearing: empirical, functional, and socio-cultural. An empirical approach designates a person as being hard of hearing or deaf depending on his or her measured decibel loss⁷. The range of hearing loss

⁷ Categories of hearing loss are organized as follows:

Profound - 91 decibels and greater often means signing, oral interpreting or captioning.

Severe - 71 to 90 decibels means students hear loud noises at close distances and require individual hearing aids, intensive auditory training and specialized instruction in language development.

Moderate to severe - 56 to 70 decibels means that without amplification students with this degree of loss can miss up to 100% of speech information. Full-time use of amplification is essential.

Moderate - 41 to 55 decibel loss means classroom conversation from 3 to 5 feet away can be understood if the structure and vocabulary is controlled. Hearing aids and/or personal FM systems are considered essential.

Mild - 26 to 40 decibel loss means a student may miss up to 50% of class discussions, especially if voices are soft or the environment is noisy.

Minimal loss - 16 to 25 decibels means students may have difficulty with faint or distant speech and if conversation proceeds too rapidly. (Ministry of Education, Special Education Branch, 1994, p. 3)

varies from mild to profound and beyond, to virtually no hearing. A profound loss means extreme difficulty hearing, with other ranges of hearing having varying effects. Using an empirical approach, a person who is hard of hearing would be defined as having a mild, moderate or severe hearing loss or a combination of these, whereas a person who is deaf would be considered to have a profound hearing loss.

A functional perspective recognizes that factors other than simply degree of hearing loss affect a person's functional ability to hear, including nature of the hearing loss, age of its onset and age of diagnosis (Jamieson, 1994; Marshark, 1993; Schein, 1991). A loss in both ears is likely to be more severe than having a loss in one ear, although the latter, known as a unilateral loss, may also result in functional difficulties (Dancer, Burl & Waters, 1995). With respect to age of onset, a hearing loss at birth is quite different from a loss several years after there has been exposure to sound and language. Age of detection of a hearing loss is also relevant, along with age at which interventions commenced. In general, the earlier the age of detection and provision of interventions, the better the outcome is for the development of listening and speech skills. The type and extent of intervention, both in and outside the home, and the nature of interactions, also play a significant role in language development (Jamieson).

From an educational perspective, one of the most important factors in a person's functional ability is reliance on speech or oral means of communication as opposed to reliance on sign language or some other visual means of communication. Educators tend to use a functional definition because it helps them know how best to communicate and respond to students (Paul & Quigley, 1990). The Canadian Hard of Hearing Association (1998) uses the

functional approach in its definition of hard of hearing: “any person whose hearing loss ranges from mild to profound and whose usual means of communication is speech” (p. 1).

By contrast, the Canadian Association of the Deaf (CAD) uses a sociocultural approach and considers deaf persons to be “those individuals who are Deaf or hard of hearing who identify with and participate in the language, society and culture of Deaf people, which is based on sign language. It is a sociological term in this sense” (Vancouver Community College, 1994, p. 8). As implied in the CAD definition, individuals with any degree of hearing loss have the right to choose to be Deaf by virtue of adoption of the language and culture of Deaf people. As noted by Jamieson (1994), the degree of hearing loss is not a criterion for membership in the Deaf community; it is possible for an individual to be considered hard of hearing in empirical terms, yet to be a member of the Deaf community. Persons who consider themselves as part of a cultural group refer to themselves with the “D” in Deaf being capitalized.

The argument for a cultural identity is that Deaf persons share a common language, namely American Sign Language, and are a distinctive community (Padden & Humphries, 1988). However, many Deaf people are both deaf in an auditory sense and Deaf in a cultural sense and the use of the term “Deaf” should not obscure their diversity (Padden & Humphries). A cultural definition means that deafness “is largely a problem of overcoming language barriers, not a problem of disability” (Lane, 1984, xiii). Nor should society “dispose of social problems by medicalizing them” (Lane, xiii). The social problem under discussion is the lack of acceptance of Deaf people and use of sign language.

Persons who are hard of hearing do not define themselves as a cultural group. "The hard of hearing do not form a community that is culturally or in any other socio-economic way homogenous" (Laszlo, 1985, p. 20). However, those who are hard of hearing have in common the experiences of not hearing and its associated effects. They do form a recognizable group "in terms of hearing disability, the hearing handicap which is greatly influenced by the acoustical environment in which they live, and the desire to use whatever means are necessary to communicate by speech" (Laszlo, 1994, p. 252).

Persons who are hard of hearing are generally amenable to seeking medical means to improve their hearing loss, although most often, the condition is not operable. Cochlear implantation is a relatively new medical procedure that involves insertion of prosthesis behind the ear to stimulate the cochlea of the ear, and thereby the nerve fibers in the inner ear, to provide sound simulation (International Federation of Hard of Hearing People, 1994; Schein, 1984). Generally, persons with profound or total losses are considered candidates for the procedure and persons with some hearing are generally considered better off maximizing their hearing with hearing aids and assistive listening devices (International Federation of Hard of Hearing People). Nonetheless, if there were a procedure to restore hearing, most persons who are hard of hearing would welcome it (Weisel & Reichstein, 1990) and have stated so publicly.

Let's imagine all hard of hearing persons are given the choice of having full hearing. What would each of us choose? I know that I would choose full hearing. In saying that, I personally have no regrets about being hard of hearing. It has been a part of defining who I am, and there has been the opportunity to have experiences in a different way from hearing people. (Warick, 1994b, p. 56)

In choosing to maximize hearing potential, persons who are hard of hearing are not subscribing to a medical view of their condition. A hearing loss is usually neither sudden nor painful and, therefore, is unlike an illness (Dahl, 1995). A socio-political approach to their disability resonates because of its emphasis on societal change.

Perhaps the biggest struggle for the hard of hearing lies here – namely, to convince themselves, their families, and others, including service providers, policy makers, and politicians, that the hard of hearing are not to blame for their impairment, that the disability is not in the person, and that society handicaps the hard of hearing. (Lutes, 1987, p. 72)

As opposed to a medical approach which focuses on functional limitations, a socio-political approach regards disability as a product of interactions between the individual and the environment (Hahn, 1982) by recognizing that the fundamental restrictions of a disability may be located in the surroundings that people encounter, rather than within the disabled individual. “From a socio-political vantage point, the difficulties confronted by disabled persons are viewed as largely the result of a disabling environment instead of personal defects or deficiencies” (Hahn, 1988, p. 39).

A socio-cultural approach means that persons with a profound hearing loss who rely on oral communication rather than sign language could choose to be considered hard of hearing, although on an empirical basis they would be termed “deaf.” If they lost their hearing later in life, they could consider themselves “deafened.” The Canadian Hard of Hearing Association (1998) recognizes deafened persons as a distinct category and uses the following definition:

“Deafened adults” refers to those who have experienced a complete or profound loss of hearing after developing speech and language skills. Late deafness can occur suddenly or over a period of time, so that ages range from early adulthood to seniors. (Warick, 1992, p. 26)

All except 6 of the 33 students participating in Menchel’s study (1996) defined themselves as being deaf. One of the requirements for participation in Menchel’s study was that students have a 70 decibel loss or greater. Students were also required to be beyond first-year and enrolled full-time in a four-year undergraduate institution in the New England region, and to agree to be interviewed by the researcher. Altogether 33 students from 18 higher education institutions met the criteria; information inviting their participation was distributed through Disability Service Offices, interpreters, the A. G. Bell Association for the Deaf, and students who were deaf. Furthermore, Menchel restricted the study to a maximum of three participants per university to get a wide representation of post-secondary institutions.

Most of the participants in Menchel’s study were born with profound or severe hearing losses. Of the students who did not identify with being deaf, Menchel noted:

They saw themselves functioning more as a hard of hearing person than a profoundly deaf person. Some said that they identified themselves as either hard of hearing or hearing impaired and, since they did not know or use sign language, they did not see themselves as deaf in the sense of communication. (p. 27)

As illustrated by the students in Menchel’s study, students who are hard of hearing construct “their identities based on their position with regard to hearing and Deaf peers, and their differentness from both groups” (Israelite et al., 2002, p.144). Thus, making comparisons

to others is part of how persons who are hard of hearing define themselves. Most comparisons are on the basis of observations and relate to functional differences from others.

One point of comparison is that the hard of hearing label does not connote the same degree of disability or separation from society as does the deaf term and, therefore, it has been of less interest to society (Dahl, 1987). In fact, the common public stereotype has been that “of an elderly person with an ear trumpet, and it is one of the few, perhaps the only, one of the disabling conditions about which it is socially acceptable to make jokes” (Dahl, p. 40). As a result, a person with a hearing loss who chooses to identify with being hard of hearing may be choosing marginality. They may use strategies such as withdrawal or avoidance to resist the negative social reactions to the behavioral attributes associated with their condition (Dahl, 1995).

Israelite et al. (2002) found that the students with hearing losses participating in their study were cognizant of their marginalized status due to the power differentials between themselves and the dominant hearing culture. The researchers conducted two open-ended group interviews with seven study participants, and each participant also completed an individual written questionnaire. Participants were all high school students who had been enrolled in the same classes with each other during grades 4 through 8.

Israelite et al. describe the social oppression experienced by students who are hard of hearing as “othering,” a term which refers to a process by which people are identified as inherently inferior and relegated to the outer margins of social power and cultural life. They noted that students who are hard of hearing may attempt “to reduce the effects of *othering* [italics added] by emphasizing the similarities between themselves and the dominant group”

(p. 135). The students they interviewed stated that “fitting in” or being part of the mainstream was important to them. “It was the students’ view that, in order to fit in, ‘we have to be normal,’ that is, ‘talk and act like hearing students’ ” (p. 141).

Although all persons probably desire to have friends, belong to a group, and not be perceived as being different, these issues may be more poignant for the student with a hearing loss in a regular classroom setting (Hughes, 1996). Yet, despite the desire to fit into the hearing world, persons who are hard of hearing may feel uncertain as to whether they belong. They may feel they are in-between the two worlds, deaf and hearing, and that they belong to neither (Antonson, 1998; Israelite, 1993; Lutes, 1987; Warick, 1994b). “The hard of hearing are caught between ‘the normal hearing’ and the deaf, in ‘no man’s land’ without a clear identity” (Lutes, p. 74).

Nonetheless, significant numbers of persons having a hearing loss from mild to profound levels have joined together and formed hard of hearing organizations with purposes related to self-help, education, advocacy, and social change (Bruce, 1995, Dahl, 1994, Fraser, 1993). Consumer involvement has heightened self-acceptance and assertiveness. Through group identity, the sense of deviance and stigma associated with having a hearing loss is reduced (Israelite, 1993).

Additional Disabilities and Other Characteristics

Another significant background characteristic for some students who are hard of hearing is having additional disabilities. Wolff and Harkins (1986) have estimated that hearing impaired children are three times more likely than the general population to have an additional

handicapping condition. Both Canadian and American studies found that approximately 30% of children who are deaf and hard of hearing had two or more additional handicaps (Jamieson, 1994).

Tell, Levi, and Feinmesser (1998) conducted a 20-year follow-up study of children with hearing losses born in Jerusalem during 1968-1987. The children were detected often before 6 months of age through baby clinics visited by 90 % of the population; those with more than a 40 decibel sensorineural hearing loss were included in the study. The researchers found that 23% of 246 children had additional handicaps. Of the 55 children with additional handicaps, 22 had profound hearing losses and 32 ranged from having moderate to severe losses, a range that is often consistent with being considered hard of hearing unless the individual identifies with being deaf. Of the participants with profound hearing losses, mental retardation was the most frequently reported additional disability, with 12 of the 22 profoundly deaf persons having this condition; learning disability was the next most frequently reported disability for those with profound hearing losses. Additional handicaps most prevalent for the 32 participants with moderate-to-severe hearing losses were as follows: learning disabilities (15), cerebral palsy (7), and mental retardation (7). The study by Tell et al. indicates that a significant number of persons who are hard of hearing also have other handicaps.

Students with additional disabilities may experience incremental difficulties in communication as well as in their psychosocial development and physical well-being. An additional disability does not simply add the conditions of that disability to the mix; there is a multiplying effect from the combination of additional disabilities (Moore Family, 1995). "The

presence of a disabling condition in addition to hearing impairment compounds communication difficulties exponentially” (Jamieson, 1994, p. 612).

The combined effects of the two disabilities are not well understood. Often, the second disability is viewed as more difficult to deal with than the first one. This was the case for the Moore Family (1995); besides not being able to hear, their child was found to be autistic.

When I looked at parents of typical Deaf children, I thought, “They are so lucky!” They have so many opportunities for their child. With Deaf children, the primary concern is communication. With the addition of autism we also have such terrible behaviors we must deal with. (p. 1)

Early detection and the education of parents and professionals are doubly important for treating multi-handicapped deaf children. The educational curriculum has to take into consideration adequate and complicated teaching methods (Tell et al., 1998). Teachers have little formal university-level training in dealing with multiple or severe handicapping conditions (Paul & Quigley, 1990). There is even less training for instructors at the university level.

Other factors, such as English being a second language, may add further complications for individuals who are deaf or hard of hearing, both in terms of detection of a hearing loss and in terms of language development. A delay in detection affects a child’s ability to develop language and to communicate with others.

Persons with hearing losses who are First Nations or are from a visible minority culture may face some additional problems. For example, they may experience negative societal attitudes in double measure for having the marginalized status of both a disability and

their First Nations status. The challenge may be further intensified if the culture is uncertain about how to respond to persons with disabilities.

Some students with hearing losses may be “gifted” insofar as they have demonstrated exceptional academic performance in high school; yet, their deafness may have masked their potential. Menchel (1996) has used the label of “high academic achievers” as being applicable to the university students with hearing losses whom he interviewed. He noted that it is “reasonable to state that, like any other student, some deaf students demonstrate the same academic ability and high achievement that some hearing students demonstrate” (p. 3).

Bibby (1993) found that the incidence rate of giftedness among students who are deaf was 5%, although it varied somewhat depending on the study. In analyzing rates, Grayson (2001) noted variations by gender, family background, and ethnicity. One set of figures projected that 10% of females and 14% of males were gifted; rates were 5% for students from the lowest income groups, and rates varied from 4% to 13% depending on ethnic background. However, the definition of gifted is socially constructed and it is not always clear what is being defined (Grayson). Precisely because of a lack of criteria to define gifted, Menchel (1996) avoided using the term, and felt it was over-used. Furthermore, he stated that IQ tests to determine the academic potential of a student are poor indicators of the student’s actual ability.

Although certain students may be defined as high achievers or gifted by others, this may not translate to a self-definition. Menchel’s high academic achievers did not consider themselves exceptional, but simply the same as other hearing students who were doing well in school.

Bibby (1993) found that there were differences between gifted hearing students and gifted students who are deaf and hard of hearing. Students with normal hearing tended to be developmentally advanced in language. Children who are deaf and hard of hearing did not have the same level of verbal skills because of their loss of hearing; in addition, some of them were below average in reading and writing compared to hearing students. However, they were the same as hearing students in terms of having a range of achievements as varied as that of hearing students. Because of their lack of communication skills, such students may not have had their potential recognized. Paterson and Vialle (1998) found that gifted deaf students experienced great frustration in school because they invariably were treated as intellectually inferior. The authors noted that they have "the double hurdle of overcoming their deafness in a hearing world and an educational service that does not meet their needs" (p. 497).

Family Influences

Parental education has a strong effect on the university attainment of youth (Anisef, 1985). This is also the case for students with a hearing loss. Quigley, Jenne, & Phillips (1968) found that families were the primary sources of influences in a student's participation in post-secondary education among students who are hard of hearing attending integrated programs. The next strongest sources of influence were high school personnel and friends. Andres and Looker (2001) concur that parental education influences expectations and attainments of post-secondary education, but note that it does not explain geographical variations, which appears to be an additional effect.

Few parents actively discouraged college attendance (Warick, 1994a). In a study aimed at youth who were hard of hearing, Warick found only 16% of the 290 youth who responded to the survey felt that their parents had discouraged post-secondary education. The surveys were distributed to youth across the country through various means including the national magazine of the Canadian Hard of Hearing Association, in schools, and through personal contacts by CHHA members. Warick's findings were similar to earlier findings by Quigley et al. (1968).

Danermark, Antonson, and Lundstrom (2001) reported that most of the youth in their study, aimed at those who were hard of hearing, felt that their parents had low expectations of them and did not provide any guidance for the future. Sixteen students making a transition from upper secondary school to post-secondary education participated in the study; half of the students went on to university. "All the students reported that their parents had told them when they were aged about 15, to do completely as they themselves wish" (Danermark et al., p. 122). The families were all working class and only those youths who were the only or eldest children in the family went on to university.

Besides the importance of the family's involvement in the transition process to post-secondary education, families are important in terms of the supports provided to students as they proceed through university. Families can either support students' staying in school or students' leaving it (Tinto, 1993). For example, for married students and older adults with families, external support may enable them to withstand the difficulties typically faced in adjusting to university life. For younger students, parental support/encouragement may be a

source of support to continue. For minority or other students, external supports such as affiliation groups may provide support (Tinto).

Impact of School System

Another early socialization factor is the school system, which may unwittingly discourage post-secondary participation of children from lower socioeconomic backgrounds. The school system, with its norms for classroom interactions and preferred styles of behavior, favors those who inherit positions of privilege and advantage (Bourdieu & Passeron, 1979; Guppy & Arai, 1993; Pike, 1970; Porter, Porter & Blishen, 1982). For example, examinations put children from the working class at a disadvantage because their work may not have the same evidence of accuracy, neatness and verbal fluency as that of other children (Bourdieu & Passeron; Pike). Thus, the nature of schools is likely to reinforce a post-secondary disposition for youth from higher socioeconomic backgrounds than those of other backgrounds. The educational system may also give preference to those students who do well academically and fit into the environment for whatever reason.

Anecdotal recounts of experiences in school suggest that children who are hard of hearing may encounter difficulties fitting in socially and academically because of their hearing loss. I collected a number of these accounts during a workshop, which were then published (Warick, 1998). Of his experience, John⁸ stated: "I remember kids harassing and kids making jokes. The school system wasn't aware of dealing with a hard of hearing person, such as facing the blackboard and talking at the same time and those things" (Warick, p. 24). Jane also

⁸ Pseudonyms were used in the report; this was the case for John and the others quoted subsequently.

reported that the kids teased her in elementary school, but in her teens she acquired friends who “accepted me so I don’t feel embarrassed anymore” (Warick, p. 23). Jim stated that he had been viewed “as a bad boy. Every time I couldn’t understand a student in a class I would get into a fight. I thought that the student was making fun of me” (Warick, p. 20). Carol went through school with no hearing aids and not even being aware that she had a hearing loss. “I thought I was stupid. I left high school early” (Warick, p. 21).

Comments from these students provide clues as to what enabled them to carry on to further levels of education. “I think the sooner you get... [your] self-acceptance and understanding the better you cope with your hearing loss.” “One thing I learned over the years is never to set limits. Just because I’m hearing impaired doesn’t mean I can’t do anything. I have to try.” “I experienced embarrassment, but I guess a time comes in everybody’s life when the embarrassment ends. That’s what happens. We stop. Can’t be embarrassed anymore. Hearing is more important than being embarrassed” (Warick, 1998, pp. 22-24).

The previously mentioned students attended regular schools, which tends to be the case for most students who are hard of hearing⁹. Terms such as “mainstreaming,” “inclusion,” and “integration” are used to describe their educational experience. These terms are often used interchangeably but there are substantial differences between mainstreaming and inclusion (Antia & Stinson, 1999; Stinson & Antia, 1999). “Mainstreaming implies that the child adapts to the regular classroom, whereas inclusion implies that the regular classroom

⁹ Regular schools may offer a range of supports from a resource room where students spend all or part of the time, to being in the regular classroom all of the time, with occasional external supports or none at all. Some students who are deaf may have these experiences, but some may also attend residential or segregated schools. Students who are hard of hearing are unlikely to attend residential or segregated schools.

will adapt to the child” (Stinson & Antia, p. 164). In terms of classroom involvement, mainstreaming implies that children are “visitors in the regular classroom, whereas inclusion implies that the D/HH [deaf/hard of hearing] children are members of the regular classroom” (Stinson & Antia, p.165).

Language Development

One of the crucial areas where students with a hearing loss may be impacted by their disability is in the area of language development, if the hearing loss occurred at birth or early in life. Depending on a person’s degree of hearing loss, there may be a limitation in the amount of language that can readily be acquired. Hamp (1972) estimated that children who are hard of hearing are approximately two years behind in academic achievement compared to hearing children, especially in reading and math. However, the performance of children who are hard of hearing can approach or even match that of hearing peers if they are provided with early amplification and auditory management (Jamieson, 1994).

Language development may be at a slower rate but is still possible in the same sequence of auditory language development for children who are hard of hearing as it is for normal hearing children “provided that they are exposed to appropriately amplified speech at an early age” (Madell, 1992, p. 158). A source of amplified speech is through the use of hearing aids and, in some cases, the use of assistive listening devices¹⁰.

¹⁰ An Assistive Listening Device (ALD) consists of two components, a receiver and a transmitter. The user wears a receiver to pick up sound via radio frequencies or light signals from a distance which are being broadcast or reflected from the speaker’s transmitter. Usually, the user combines the receiver with his or her hearing aids, although the receiver may be worn without hearing aids through the use of earphones.

Hearing aids amplify sound by increasing its loudness. But hearing aids are unable to discriminate between speech and noise and, thus, amplify both to the detriment of hearing (Ross, 1992). "A hearing aid, despite how technically advanced it is, cannot fully restore normal hearing. No hearing aid can provide full access to the distinctive features and characteristics of the ecological hearing world" (Antonson, 1998, p. 244). Similarly, assistive listening systems, which serve to reduce the distance of sound reception through use of a transmitter for the speaker's voice and a receiver for the recipient, do not restore normal hearing.

Speechreading may be used to aid in language comprehension by supplementing heard parts with visual cues from a speaker's mouth, face and movements. "Even at best, however, speechreading is demanding, tiring, and only partially accurate" (Luey & Glass, 1995, p. 178).

Despite its limitations, speechreading can be a predictor of a student's ability to persist in college (Menchel, 1996; Stinson et al., 1987). Menchel found that all except one of the 33 students whom he interviewed, most of whom were deaf, used speech and speechreading as their main mode of communication throughout elementary and high school. Only four of the students used interpreting services and only seven of the students had notetakers in high school, and yet they performed well scholastically; all but one had good speechreading skills.

Impact of Communication Difficulties on Learning

If a student who is hard of hearing has experienced early language difficulties, there may be some delay in acquiring concepts and developing communication skills. The student's

ability to think reflectively and develop internal control may be weakened. Difficulties with academic learning may result. When communication is impaired and tight controls are exerted on them, children are less likely to develop reflective cognition and an internal locus of control (Marschark, 1993; Meadow-Orlans, 1990). This has nothing to do with innate intelligence but, rather, with socialization patterns.¹¹

Research on children who are deaf has found that parents' communication patterns are likely to be more controlling and directive in verbal and nonverbal interchanges with them than with hearing children (Marschark, 1993). A comparative study of hearing mothers, some who had children who were deaf and some who had hearing children, found three communication differences (Lederberg & Mobley, 1990). Mothers of children who were deaf (1) spent significantly less time interacting with their children than did the hearing dyads, (2) initiated interactions with their children more often than did the mothers of hearing children, and (3) terminated interactions more frequently because the child did not see or hear a communication. Because these studies refer to children who are deaf, it is not known whether similar findings would be found for children who are hard of hearing.

A child's language development and subsequent cognitive development is further affected by continuing social and experiential deficits. It has been said that children who are deaf do not have the same opportunities to learn concepts and acquire vocabulary as do other children because they do not have equivalent experience; compared with hearing children they

¹¹ Jamieson (1994) has traced the historical views of the cognitive development of children who are deaf. Initially these children were viewed as inferior in intelligence; then deafness came to be viewed as a form of sensory deprivation, leading to qualitatively inferior and more concrete mental processes than those displayed by hearing individuals. By the 1960s, the view was that poorer performance was due to lack of experience or task emphasis on English, a language to which children who are deaf had limited exposure by virtue of their hearing loss.

have less outdoor play, fewer playmates and less language input from adults (Marschark, 1993).

Children who are hard of hearing may also have missed socialization and language development opportunities. Furthermore, their inability to hear may be mistaken for an anti-social response, causing further difficulties.

Paradoxically, the child with a less severe hearing loss may be confronted with a conflict in the classroom not normally encountered by the deaf student. Because the hard-of-hearing child appears to hear and respond appropriately much of the time, the teacher may attribute unpredictable responses to inattentiveness and penalize accordingly. (Jamieson, 1994, p. 605)

Students who are deaf and hard of hearing may lag behind their hearing peers in reading, writing and numeric skills (Paul & Quigley, 1990; Rodda & Hiron, 1989). Deficits may arise from weak foundational knowledge in these subjects due to a lack of hearing content.

Some youth with hearing losses who participated in a Canadian national survey attested to having academic difficulties in the areas of mathematics and reading (Warick, 1994a). However, many youth who are hard of hearing have excellent academic records and no particular deficiencies in any subject area, so that individual variations need to be recognized. A variety of factors, including language acquisition difficulties from an early age, lack of use of assistive listening technology, the nature of the early learning environment and family support, as well as individual characteristics, may help to explain why some youth who are deaf and hard of hearing have academic deficits.

Self-Esteem

The amount of self-esteem possessed by individuals may affect their educational attainment. Studies on self-esteem suggest that children and adolescents who are deaf may have less positive ideas about themselves than do comparable groups of hearing peers; their self-esteem is lower and they lack a sense of personal control over events (Leigh & Stinson, 1991; Meadows-Orlans, 1990). In addition, it has been reported that students who are deaf feel that they are less socially accepted than their hearing peers (Capelli, Daniels, Durieux-Smith, McGrath, & Neuss, 1995).

Whether the self-esteem of youngsters who are hard of hearing is affected by hearing difficulties is worth considering. Warick (1994a) found that over 80% of the responding youth in her study agreed with more positive statements about the self than negative ones. However, about 20% of respondents choose the more negative statements such as "I have few friends," "Others do not understand," and "I am discouraged by my hearing loss." No connection was found between the selection of negative statements and level of hearing loss, suggesting that level of hearing loss does not correspond to degrees of difficulty in self-perceptions.

Dancer et al. (1995) found that children who are hard of hearing may experience lowered expectations matched by low results. In their study of 18 children, ranging in age from 5 to 17 years old, students who had unilateral hearing losses had lower ratings than hearing students in academics, attention, communication, class participation, and behavior. Despite this, teachers believed that these students were performing well. The authors concluded that this was because the teachers had lowered their expectations for them, and found a low performance acceptable. Gaustad (1999) reported that teachers themselves stated

that they had underestimated the potential of their students with hearing losses, whether deaf or hard of hearing, and these students had consistently exceeded their expectations.

Contributing to self-esteem may be parental lack of acceptance of a child's hearing loss. It has been suggested that parents will undergo a grieving process about their child's hearing loss, a process that includes denial, guilt, depression, anger, and anxiety (Luterman, 1987). Although these stages are considered sequential, they sometimes overlap and may recur in parents at different decision-points in a child's life. Furthermore, there is no set time period for each stage (Luterman). Societal norms about the acceptance of disabling conditions may factor into parental views and the amount of supports available to them in dealing with this process.

Not only do parents go through stages of adjusting to a hearing loss but, so too, do those who are adventitiously deaf or deafened, terms which refer to those who lose their hearing later in life. "For them, deafness is both a disability and a loss; it is something to be mourned" (Luey & Glass, 1995, p. 180). Those with a congenital hearing disability have grown up with a hearing loss as part of their identity; in contrast, the loss of hearing is new to those who are adventitiously deaf, requiring constant adjustment and readjustment to new roles, relationships, jobs, activities, and to a world of unending silence (Rutman, 1989). "The sense of loss and deprivation may be enduring and intense, as individuals lose access to their once familiar world" (Rutman, p. 306).

Even those who have had a hearing loss from birth may deny their hearing loss and can endeavor to do so because, to outward appearances, a hearing loss is not visible. "Hard of hearing people try to deny or hide their hearing losses, have generally not joined organizations

of hard of hearing people and make efforts to blend into the normally hearing world around themselves” (Weisel & Reichstein, 1990, p. 1).

The lack of disclosure and associated actions may be attempts to escape societal stigmas associated with having a hearing loss. “It is not uncommon for people to think of the hearing impaired as: not so bright, stupid, strange, not so capable, and they tend to expect less from those with a hearing loss” noted Lutes (1987, p. 75). Getty and Héту (1994) found that the fear of stigma associated with a hearing loss governed the coping strategies of employees who were hard of hearing. These employees perceived that their co-workers thought of them as feeling inferior, lonely, isolated, stressed, rejected, and not being bright.

Having a hearing impairment is seen as a condition that needs to be hidden. It leads to a negative self-image – seeing oneself as diminished, weak, less of a person. It is understandable that, with the threat of stigmatization surrounding an invisible impairment, one would do everything to conceal the impairment. (Getty & Héту, p. 269)

The stigma associated with a hearing loss may result in a lack of use of assistance and services because these will mark the user as being different from everyone else (Rutman, 1989). In university, students with hearing losses may decline to use disability services and supports. Sohn (1996) noted that she only self-disclosed her hearing loss and got help after not doing well in her first year and realizing that she would fail if she did not use supports. “It was then that I recognized that succeeding in University was more important than my discomfort” (p. 19).

Even those who want to disclose their hearing loss may experience disbelief from others or a denial of the seriousness of the disability. The invisible nature of a hearing loss may mean that others are apt to forget that there can be difficulties (Bryant, 1996).

Other reasons can cause a lack of confidence. Antonson (1998), whose study involved 11 Swedish university students with hearing losses, found that students felt a loss of control and security from encountering obstacles, such as a lack of integration in group activities, difficulty keeping up with the pace of study, or lack of contact with instructors. A variety of data sources were used for the study: interviews, participant observation, video recordings, stimulated recall, and text interpretations. Antonson noted that the students

had the feeling of being regarded as inferior and, as a result, began to be uncertain and wonder whether she/he was good enough. The distance in relation to significant others at the university, such as fellow students and teachers, meant that this uncertainty could at times increase and result in a loss of self-confidence. (p. 249)

Whether self-esteem issues, and the attendant difficulties of living with a hearing loss in a hearing world, translate into emotional and psychological difficulties has been addressed in the literature (Jamieson, 1994; Meadow, 1980; Rutman, 1989; Schlesinger & Meadow, 1972). Meadow noted that there tends to be a higher prevalence of personality and behavior disorders among deaf children: 8-22% compared with rates of 2-10% for the general population of American children. Hill and Nelson (2000) noted that the incidence of severe and persistent mental illness in the Deaf population is about the same as is found in the hearing population, that being 1-3% but the incidence of serious mental disturbance may be as much as four times higher in the Deaf population (40%) than in the hearing population (10%).

“There is a high incidence of severe stress and trauma disorders caused by lack of communication, family disconnection, isolation, daily systemic discrimination, physical abuse, and sexual abuse” (p. i).

According to Jamieson (1994), children who are hard of hearing may face problems from lack of hearing or not belonging to a Deaf community. Although the likelihood of psychosocial problems increases when a hearing loss is present, this is not inevitable and individuals can vary enormously. Marschark (1997) noted that studies of over-protective mothers found both students, whether hearing or deaf, were likely to report being depressed, the point being that deafness per se does not cause the problems. Jamieson offered that parental and audiology support, along with the provision of mental health services, would reduce the incidence of emotional and behavioral difficulties.

Transition Process

Students bring to university their experiences from a prior institution as well as their immediate transition experience, such as with the admissions and program selection process. An effective transition process is more likely to lead to the retention of students, than an ineffective process. The adjustment from one institution to another can result in anxiety because of the change in content, expectations, and grades at a university (Andres, 2001; Andres et al., 1996). This can happen even when students attending community colleges support transfer from college rather than high school as a viable and even preferable route to

university (Andres).¹²

The transfer process may be difficult due to poor counseling, difficulties with the transfer and registration process, loss of credit for coursework, or adjustment difficulties (Andres, 1996, 2001; Dougherty, 1987). In addition, students who attended college before going on to university may find university harder and more challenging. The work may be more demanding and require more independent activity without clear guidelines (Andres, 2001). Students may have difficulty integrating into the receiving institution (Andres, 2001; Dougherty, 1987). Transition is a “period of change, uncertainty, adaptation, adjustment, stress and accommodation” (Gilbert, Chapman, Dietsche, Grayson, & Gardner, 1997, p. 109).

Effective transfer may be hampered by a lack of information. Although the majority of students find the transfer process is not difficult (Andres, 2001; Townsend, 1995), some students have considerable difficulty. A third of the 47 transferring students interviewed by Andres (2001) found the transfer experience “complicated and confusing” (p. 52). The students were transferring from a particular urban community college to university in 1996. Andres notes:

The available information was insufficiently clear; it was hard to work out an acceptable program of studies that satisfied the necessary transfer requirements; it was difficult to determine whether the information was current, to understand what it meant, or what aspects of it were most pertinent. (p. 52)

¹² Although college participation and university transfer are promoted in some jurisdictions, Dougherty (1987) has noted that college participation can hinder the attainment of a degree. Karabel (1972) viewed college as a component of the class-based tracking system with universities being intended for students of higher socio-economic status. Clark (1960) described colleges as “cooling out” places for students who don’t meet university standards, thereby reducing the number of disappointed, disaffected youth in society.

Students require accurate information about the nature of the institution well in advance to make effective choices and to plan their transition to post-secondary education (Andres, 2001; Braxton, Vesper, & Hossler, 1995; Guppy & Bednarski, 1999; Tinto, 1993). Beatty-Guenter (1992) stressed the importance of providing up-to-date information to teachers and school guidance counselors, as well as encouraging them to make on-site visits. Campus orientation programs were also suggested whereby students visit prospective institutions.

In compiling research on interventions, Pascarella and Terenzini (1991) found that programs, such as instruction on academic skills, advising, and counselling as well as comprehensive support services, had a positive effect on persistence. The effect was strongest during freshman year than thereafter.

Yet, according to Gilbert et al. (1997), the difficulty with many programs is that they tend to rely on the voluntary self-selection of students to activate them, and those who would benefit most from them are least likely to select them voluntarily. The programs are passive or reactive, rather than being active or intrusive. Yet, mandatory programs may not be the answer because many persons who do not require them would be forced to attend.

For students with disabilities, an important transition issue is the match between their disability-related needs and the institution's accommodations. Accommodations, in this context, refer to changes in processes or services required for students with disabilities to access the university environment or to have equivalent experiences to those of non-disabled students. Students may already have had prior experiences with disability-related accommodations in previous forms of schooling, but when they enter post-secondary

education, they will have to negotiate an entirely new set of arrangements with unfamiliar people. Their ability to handle these arrangements may be shaped by prior experiences, skills, and expectations about their new environment. Their anxiety about entering university may be heightened because of concerns as to whether they will obtain needed accommodations and adjustments in a new setting.

Some students with disabilities select a particular post-secondary institution based, in part, on their perceptions of the availability of support services. Menchel (1996) found this to be a significant factor in choices of post-secondary institutions by the students with hearing losses taking part in his study.

In some jurisdictions, itinerant¹³ teachers assist high school students with the transfer process to university by providing information and arranging visits to particular institutions. These visits are not only with admissions staff but also with disability coordinators to discuss what accommodations may be available. Despite such visits, Swartz and Israelite (2000) found that students who are hard of hearing are often not prepared for the realities of a post-secondary education. In 1996 Swartz and Israelite conducted semi-structured group interviews with five university students who were hard of hearing and, in the spring of 2000, conducted three interviews with three additional university students who were hard of hearing. They found that students may experience communication breakdowns due to not being aware of strategies for dealing with new realities. As well, the students may have difficulties obtaining support services, compounded by a lack of knowledge about the nature of their own hearing loss and the use of various technological and other support services.

¹³ Itinerant teachers are teachers who travel from school to school and serve as a resource for meeting the needs of students who are deaf and hard of hearing.

Furthermore, students may be misguided if they act on the information they have without checking it out. This was found by Andres et al. (1996) who conducted an action research study involving 21 first-year students attending three post-secondary institutions. The researchers conducted focus groups and asked students to keep weekly journals reflecting their experiences. The study also included interviews with key institutional staff.

Not only did Andres et al. (1996) find that students often had inaccurate, incomplete, or wrong information about post-secondary life, but that they often had difficulty getting accurate information, either because of their own lack of knowledge and initiative or because bureaucratic processes were difficult or resources insufficient.

The reality of maneuvering through the institution is far more complex as students encounter countervailing forces such as unhelpful and curt staff, limited access to or absence of materials, and reluctance to utilize existing resources. Sometimes students did not know what resources the institution offered; in other instances, utilizing resources was resisted because they did not fit the needs of the students. (p. 124)

There is considerable written advice for students with a hearing loss on “navigating” the post-secondary system (Jones, 1993; Lingen, 1993; Patterson & Schmidt, 1992; Warick, 1997). For example, the handbook by Jones (1993) identifies barriers and possible ways to overcome them. A list of possible services to provide hearing access and support is provided. Usually, though, the material is generic, so that students need to make contact with a specific institution to find out about their policies and procedures. Moreover, although written materials are useful, they have limitations and need to be supplemented by human contact (Andres et al., 1996).

Academic Integration

This section discusses issues related to the academic integration of students in university, including student experience with their courses, instructors, grades, and academic advising. Before launching into this discussion, a profile of the participation of students in general, and students with hearing losses in particular, will provide some idea of the scope of the population that attends university.

Participation Rates

The rate of participation of students attending university has risen dramatically over the last century in Canada. From a rate of only 3% of the population in the 1930s attending universities (Axelrod, 1990), the full-time participation rate increased to 30.6% for students aged 18-to-21 year in 1998-1999 (Statistics Canada, 2000).

The participation rate of students with disabilities does not match their percentage of the population. University degrees are held by 7% of persons with disabilities, compared to 17% of the population (Human Resources Development, Government of Canada, 2002). In universities, less than 1% of the student population comprises students with disabilities (Hill, 1992). Of the 6,151 survey respondents to an undergraduate survey involving 23 Canadian universities, 3.5% of students self-identified as having a disability (Walker, 1999). Of the total group, 9.1% reported having a hearing disability. Danermark et al. (2001) noted that the number of students with hearing losses who continue their education at the post-secondary level is much lower compared to hearing peers in Sweden.

Persons who are deaf or hard of hearing constituted 12.9% of the students with disabilities who responded to a Canadian study of students with disabilities attending colleges

and universities. Students with learning disabilities, attention deficit disorders, mobility impairments and visual impairments self-identified more than did students with other types of disabilities (Killean & Hubka, 1999).

The participation rates of students in general are less impressive when their drop-out rates are considered. One-third of all its students who entered for the first time dropped out before they completed their first year, the University of Victoria reported in 1992 (British Columbia Council on Admissions and Transfer, 1992). Two colleges in British Columbia found that 20% of new fall registrants had not completed a single course by Christmas and that 50% of full-time students did not graduate from two-year programs (British Columbia Council on Admissions and Transfer). Drop-out rates of students with disabilities are not separated out in these studies¹⁴. However, another study found that students with disabilities have the same completion rates as other students (Jorgensen, Havel, Lamb, James, Barile, & Fichten, 2002). Whether this includes students who are hard of hearing is unknown. A study of the drop-out rates of students who are deaf found that the 70 percent rate exceeded national rates for hearing students in every category, despite differences in attrition rates among different schools (Walter, Foster, & Elliot, 1987).

The foregoing information suggests that the rate of post-secondary participation of students with hearing losses is less than that for the general population. The first year at university is a particularly vulnerable time. However, in terms of completion rates, students with disabilities do not differ from the rest of the student population.

¹⁴ Note that these figures are cited for colleges, not universities, and one cannot assume that the rates of drop-out would be the same for both types of institutions.

Quality of the Learning Experience

Tinto's retention model (1987) stresses the importance of academic integration as the major factor contributing to student retention. According to Bean and Bradley (1986) students' positive perceptions of the quality of the learning they experienced in the classroom contributed to feelings of academic integration. Walker (1999) found that 88% of undergraduate students surveyed felt that their learning experiences were intellectually stimulating, and 85% were pleased with the quality of the teaching received at university.

Students' evaluation of academic quality is related to course offerings, class size, advising, nature of the instruction, and career preparation. Positive evaluations are not related to year in school, grades, or gender of the student (Corts, Lounsbury, Saudargas, & Tatum, 2000). This does not mean that there are no differences based on year of study. Misra, McKean, West, and Russo (2000) found that students in their first or second year had higher levels of stress than did students in their third or fourth year. In Guppy and Trew's (1995) study, full-time students, whether disabled or non-disabled, stated that they were more dissatisfied than were part-time students. Guppy and Trew (1995) distributed questionnaires to 5,654 graduate students at a single university in 1994 and received back 3,314 analyzable surveys for a 59% response rate.

Another finding from Guppy and Trew's (1995) study was that students with disabilities had lower ratings of their educational experience than non-disabled students. This was the case in four of five categories: overall university experience, academic experience, academic progress, and academic advising. In percentage terms, their ratings were below 65% in all categories.

The preceding studies did not separate out students who are hard of hearing, and so it is not possible to know the extent to which these findings are applicable to this group. Given that students who are hard of hearing experience difficulties with hearing in a post-secondary environment (Antonson, 1998; Mindel & Feldman, 1987; Warick, 1994a), it seems reasonable to assume that many of the issues raised in the survey by students with disabilities may have some application to them.

Differences in attitudes were prevalent with respect to different program areas in Walker's study (1999). Arts and Humanities students and Education students had stronger ratings for their experiences than Business, Engineering, Physical Sciences, and Biological Science students. Despite differences in ratings among different program areas, selection of a major may be an indicator of the extent to which a student is integrated into university. The impact of not having a major was the reason why most students who were deaf left university (Scherer and Walter, 1988).

Methods and quality of teaching were paramount concerns raised by undergraduates in a university survey of their experiences (Student Services Working Group, UBC, 1995). When discontent was expressed, it was about classes lacking stimulation. Pascarella and Terenzini (1991) found that it was the quality of interactions with instructors that mattered most to students, not the frequency of contact. "The most influential interactions appear to be those that focus on ideas of intellectual matters, thereby extending and reinforcing the intellectual goals of the academic program" (p. 620). In other words, students found interactions around course content with their instructors to be the most meaningful.

Students who are hard of hearing experience difficulties hearing in the classroom, which affects the quality of their learning experience. Youth who are hard of hearing have difficulties hearing instructors and other students (Warick, 1994a). They have difficulties hearing in specific situations such as in group discussions and in lecture-format classes (Antonson, 1998; Mindel & Feldman, 1987; Warick). Difficulties in hearing tape recordings, slide shows, and non-captioned films and videos¹⁵ were also experienced, along with difficulties hearing in situations such as cafeterias, auditoriums, and on campus grounds (Warick).

As I noted in a presentation (Warick, 1998, February), I myself faced worries about hearing when I returned to university as a graduate student:

One of my greatest fears was whether or not I would hear my instructors and the other students. Would it be hard to hear? Would it be impossible to hear? Would it be a pleasant hearing environment or would be it stressful and emotionally and physically draining? What would I have to do to hear? How many students would there be in the classroom? Would it be a large or a small class and would I be able to hear other students? What would be the quality of the instructor's voice? Would I need to use an assistive listening device in addition to my hearing aid? All of these questions were in mind when I started university again. These were not one-time questions. With each new semester and each new class the same questions arose again. (p. 1)

Difficulties with hearing are, perhaps, not surprising for students who are hard of hearing. They are additional difficulties, however, that students without hearing losses do not experience, for the most part. What is not known is the impact of these types of

¹⁵ Captioned films and videos refer to the simultaneous display of text of the verbal content on the screen.

difficulties on the university persistence of students who are hard of hearing and on the quality of their post-secondary experience. However, a study by Walter et al. (1987) found that being unable to communicate with teachers was among the three top reasons students withdrew from post-secondary education.

Interactive classes are problematic because students who are hard of hearing cannot identify the location of speakers in time to focus on them for lipreading. In addition, the effectiveness of hearing aids is limited because the wearer has insufficient time to become oriented to swift and sudden changes in speakers.

Participation is a challenge for Deaf students using a sign interpreter because the interpreting follows the speaker, resulting in a lag time of 5 to 10 seconds after a speaker stops (Foster, Long, & Snell, 1999). By the time students have received the full message, the instructor has already identified and called on someone else. Furthermore, classes with considerable learning in work groups are challenging because of the rapid turn-taking in conversation, and interpreting lag-time (Antia, Stinson, & Gaustad, 2002). "Integration into the give and take of the mainstreamed classroom is often not achieved" (Walter et al., 1987).

Students, who used oral means of communication as opposed to interpreters, were also found to have difficulties participating in class. Stinson, Liu, Saur, & Long (1996) noted that students who are oral deaf selected opportunities to speak up in class carefully, being strategic in doing so. Sometimes, they chose not to participate and, instead, waited to have a private moment with the instructor after class (Stinson et al.).

Persons who are hard of hearing also experience participation difficulties (Antonson, 1998; Mindel & Feldman, 1987; Secord, 1999; Warick, 1998, February). Due to the time it

takes to process sound and to fill in missing gaps of verbal content, persons who are hard of hearing frequently experience a lag in comprehension of the message.

While my brain is engaged in the process of interpreting the content of what is being said, the same conversation is progressing! Hence, what I find myself doing, is trying to play “catch-up” with the ongoing conversation. The result is that I experience holes in the conversation as a whole and become unwittingly excluded from the conversation! (Secord, 1999, p. 18)

Students who do not participate in classes are more akin to being visitors than members of the class. In contrast to being a visitor, being a member means being part of the classroom and school community (Antia et al., 2002). Visitors “face greater barriers in obtaining a quality education” (Antia et al., p. 215). In particular, students who do not participate, despite having a hearing loss, can face academic consequences. Some courses mark students on participation for a portion of the class grade. Unless students request an alternate evaluation, their marks may be affected when participation is graded. Because classroom participation has been found to be a good predictor of course grades, “the inability to participate in the classroom may result in poor academic achievement” (Stinson & Antia, 1999, p. 168).

Another academic challenge identified by Foster et al. (1999) is that although students who are deaf rely on speechreading for information, instructors often break visual contact with them by writing on the board, reading from papers held too close to their faces, or pacing back and forth. The same visual need for speechreading exists for students who are hard of hearing.

Other classroom challenges have been noted for students who are deaf and hard of hearing (Antia et al., 2002; Antonson, 1998; Foster et al., 1999; Stinson & Antia, 1999;

Stinson et al., 1996; Walter et al., 1987). One occurs when instructors speak at the same time as they manipulate physical objects, requiring students to divide their attention between the instructor/interpreter and the object. The other occurs when students with hearing losses are excluded from informal exchanges among other students regarding instructor expectations, study tips, and unspoken rules for class behavior and organization, thus missing important but “unpublished” information. Furthermore, they are not able to gauge what was missed because they don’t know what was not heard, and so they cannot take steps to obtain the missed content.

Once students lose the thread of a conversation it is difficult “to find the thread again or re-join the discussion. This meant that both short and long sequences in a communication situation were easily lost and most often impossible to deduce” (Antonson, 1998, p. 247).

A student who is hard of hearing may find that a previously successful learning style does not fare well in university or for some courses. Learners have different learning styles, but a person who is hard of hearing may have adopted a particular style because of the hearing loss. As I noted about a statistics course I took:

I learned from the statistics course that I had to change my learning style. I had learned to study from the book since I often did not hear the instructor. In the case of the statistics course, I learned that studying from class presentations was the most essential part so I had to consciously shift my studying strategies. When I did that, my grades significantly improved. (Warick, 1998, February, p. 7)

Stinson et al. (1996) found that all students with hearing losses, regardless of their level of hearing, relied heavily on instructors to be sensitive to their communication needs in

the classroom. Furthermore, instructors were important in giving students opportunities to participate by controlling class discussion and being patient with slow communication. Besides structuring class activities to facilitate communication and the participation of students, instructors can also provide information about deafness and corroborate with support personnel (Stinson & Liu, 1999).

However, students also found that they could not rely solely on instructors. Strategies such as asking classmates for assistance, reading more on one's own, having a teacher write more on the board, or obtaining a notetaker were employed by students with hearing losses to overcome their classroom difficulties (Warick, 1994a). Students also sat at the front of a class, requested others to repeat themselves, or met with an instructor after class.

Schein (1991) noted that students can partially overcome difficulties hearing an instructor in a lecture by focusing on the speaker and choosing an appropriate seat. It also helps when instructors have strong, clear voices and face students directly (Stinson et al., 1996).

In order to ensure effective communication, students who are hard of hearing need to be assertive and self-confident. Students with hearing losses who were surveyed about factors for success emphasized foremost a self-confident attitude, which is necessary for dealing with difficulties (Quigley et al., 1968). Yet, difficulties of hearing are likely to lead to a sense of isolation (Mindel & Feldman, 1987). "Uninvited isolation from others is one of the most painful of human sufferings. No one can survive in a vacuum. Our capacity to communicate meaningfully with others is inextricably tied to our capacity for living" (Mindel & Feldman, p. 20).

Formal and Informal Faculty Contact

An important aspect of academic integration is the relationship that students have with instructors. Tinto's retention model (1975) initially focused more on formal contact and, as a result of the research by Pascarella and Terenzini (1980) and Terenzini and Pascarella (1977, 1978), Tinto added the importance of informal contact, which Tinto incorporated into his revised retention model of 1987.

Frequent interaction with faculty is more strongly related to satisfaction with university than any other type of involvement (Astin, 1984). As well, frequency of contact with faculty has positive associations with students' self-reports of academic and intellectual skill development (Pascarella & Terenzini, 1991). It is likely to "strengthen the personal bonds between the student and the institution thereby increasing the likelihood of social integration and persistence" (p. 394).

There are differences in interactions based on types of institution, types of program of study, and year of study. Pascarella and Chapman (1983a) found that residential students and students in the liberal arts had significantly more non-classroom interaction with faculty members than students in commuter institutions or those in other types of programs. Differences in faculty contact may also exist based on students' year of study and discipline. Hawkey's (2000) research led her to conclude that upper level students, as compared to other levels of students, were more apt to be involved with academic activities such as being integrated into the research culture of an institution, and to be more involved in activities of

their academic discipline.¹⁶ Schulte, Thompson, Hayes, Noble, and Jacobs (2001) found that student-to-faculty interactions and relationships were rated less positively by both faculty and students at the undergraduate level than at the graduate level. From a study of students at 74 institutions, Pascarella (1985) concluded that students who had aspirations to continue their studies were more apt to develop relationships with faculty than those students who did not have such aspirations.

Students who are hard of hearing and deaf also vary in the extent to which they want contact with instructors. "One student might want close contact with teachers and other university staff, while another student might want to manage by him/herself as much as possible" (Antonson, 1998, p. 247).

The extent to which professors are considered approachable affects the contact students make with them. Andres et al. (1996) found that some students were reluctant to seek assistance from instructors because they viewed them as power figures. Reluctance by some students to contact faculty was exacerbated when the instructor was perceived to be insensitive, uncaring, and overtly sexist, or a poor instructor (Andres et al.). However, not all students responded to instructors in this way. Some students who had been wary of approaching instructors at the outset of a term described the same instructors as "pretty approachable" by the end of their term (Andres et al, p. 88).

Townsend (1995) and Andres (2001) also found differences between universities and colleges with respect to faculty attitudes and behaviors toward students. Whereas college

¹⁶ In 1998 Hawkey conducted 23 interviews with third-year psychology students attending a research intensive university, and, in the following year, she distributed questionnaires to third-year psychology students. A total of 130 questionnaires were returned.

instructors concentrated on developing students' academic abilities, by contrast, university faculty exhibited a Darwinian perspective about academic success, namely, that the strongest will survive (Townsend).

From some faculty members' perspective, it is the student's responsibility to correct any deficiencies in academic preparation, not the faculty member's....Even at an institution officially committed to teaching and a student-centered approach, some faculty seemed reluctant to give students direct assistance if they seemed to lack appropriate academic background. (Townsend, p.189)

Similarly, Andres (2001) found that some students felt university professors were occasionally "distant, inaccessible, and bound by fewer expectations to be clear and communicative" (p. 59). However, other students preferred the approach taken at university, as noted by the following student who felt "you shouldn't be spoon-fed because university is the time for you to be like independent" (p. 99).

Academic Advising

Academic advising refers to the process of students receiving advice related to their academic studies or programs. Crockett (1985) has stressed that academic advising is an important component of persistence. According to Crockett, an advisor assists students with exploring goals and choosing appropriate educational offerings consistent with those goals. Such advising is best when it helps students clarify their educational and career goals, relating these to academic offerings. Crockett also stated that academic advising, while not the only

means for an institution to demonstrate a caring attitude, does “represent an opportunity for a significant one-on-one relationship between faculty, staff and students to develop” (p. 245).

Most often academic advising is provided by faculty members, although not exclusively so, depending on the structure of a faculty or department. Students report mixed levels of satisfaction with the quality of academic advising. In a study of undergraduate students at the University of British Columbia (Student Services Working Group, UBC, 1995), students expressed concerns with academic advising and other types of advising (personal, career and financial). In another study, university students reported a range of academic advising experiences, from being very positive to being very brief (Andres et al., 1996). Most notable was that lack of a declared major was considered an impediment to advising as noted by the following student: “A lot of people don’t choose their major until third year so you don’t get an advisor in your program until third year. But by that time you may have needed somebody before then” (Andres et al., p. 87). Corts et al. (2000) found that advising was at the bottom of the list of student satisfaction and was also the area of the greatest number of student complaints from students who are deaf.

Student Expectations

Students bring expectations to university. When expectations are met, there is a “goodness of fit” between an individual and an institution (Braxton et al., 1995):

The greater the extent to which expectations for academic and intellectual development are being fulfilled, the greater the degree of academic integration and social integration experienced by the student. Expectations for career development also wielded a positive influence on both academic and social integration. (p. 605)

Andres et al. (1996) found that many first-year students tended to be overwhelmed by their workload and the adjustment to different, higher standards from high school. As a result, they experienced low or failing grades. Initially, the students started with higher expectations but by December reached consensus that in relation to achievement “first year’s kind of a write-off” (p. 85) and, that by the end of their first year, they were complacent about earning lower grades than they were accustomed to in high school. According to Andres et al., for this group of students “the game was to survive. Expecting to thrive was expecting too much” (p. 85).

Expectations are also related to satisfaction levels, and there is some suggestion that if students have achievable expectations that are met, they will be more satisfied and, hence, be able to perform better. Bean and Bradley (1986) concluded that “satisfaction had a greater influence on performance” (p. 403) than performance had on satisfaction. Student satisfaction contributes to academic, personal and professional achievement (Bean & Bradley; Pike, 1993). According to Bean and Bradley, four factors contributed to satisfaction: (1) institutional fit between the student and the type of institution, (2) a fair degree of academic integration, (3) a good social life, and (4) a feeling of self-development that one’s education would lead to employment.

Commitment

Commitment refers to the level of the individual's personal investment in their education (Pascarella & Terenzini, 1991). Commitment is required for students to complete their university studies (Tinto, 1982). Tinto has identified two types of commitment, one being to persist because of the hope of graduation and the other, to persist because of a commitment to the institution; at least one but not necessarily both are required for a student to persist.

Pascarella and Chapman (1983b) found that commitment to the goal of graduation was positively related to persistence in both residential universities and two-year commuter institutions. Commitment to the institution itself was a factor enhancing retention for students attending four-year colleges, especially if they had a low commitment to graduation and few friends. Institutional commitment was not a factor in retention for students at two-year commuter institutions, perhaps, because they intended to transfer to another institution following completion of their two-year program.

Grades

Reasonable grades are essential for a student to graduate. As well, Andres et al. (1996) students found that students are concerned about getting good grades to meet their own expectations, for self-satisfaction and, in some cases, for subsequent graduate school or scholarships. Grades were second to intent to leave in directly influencing drop-out, suggesting its importance (Bean, 1982).

Grades are not merely a result of academic ability and intelligence; they are significantly influenced by factors such as personal motivation, organizational skills, study habits, and quality of effort (Pascarella & Terenzini, 1991). In his study of 11 students with hearing losses, Antonson found that level of hearing was not related to level of performance. "There was no empirical connection between impaired hearing and the results achieved in university studies" (p. 246).

Many first-year university students experienced a drop in their grades from high school (Andres et al., 1996; Menchel, 1996). This also applies to transfer students. Andres (2001) found that 42 out of 47 students who had transferred to university from a college experienced a decrease in marks.

The main reasons for a decline in grades were increased academic rigour, the grading system (including the perception that a bell curve grading system was used), larger classes, and limited contact with instructors (Andres, 2001).

They had found the move from college to university difficult and stressful, sometimes to the point where they felt they had encountered a serious setback in achieving their academic goals. A few students reported being on "academic probation" because their grades had dropped to a level of marginal acceptability. (p. 55)

For those students who had been highly successful in high school, a marked decline in grades was traumatic and failing was a foreign concept to them: "The experience of earning low, and in some cases, failing grades within the first six weeks of university...was most distressing" (Andres et al., 1996, p. 84).

Menchel (1996) noted that one of the coping strategies of successful students who are deaf was “learning to accept the fact that, while they might have been outstanding in high school with straight A’s, they were now ‘just another student’ and, perhaps, even, an average student” (p. 41).

Andres et al. (1996) found that most students did not know the consequences of failing. Furthermore, they did not know the difference between failing a course and having a failing average or what courses of action could be taken when getting failing grades, including a mandatory year off and academic probation. Those who remained at university expected to improve in their second and third years of study (Andres et al., 1996).

Students had concerns about grading practices (Andres et al., 1996). Some felt there was a process for culling students by grading “on a curve,” while others thought the approach was to ensure that no one fails. These individuals felt that expectations differed between classes and that there were inconsistent grading processes between different sections of the same course. The latter was a particular reference to a first-year English course.

Access Issues

For students with disabilities, issues of access to instruction, programs, and services are of prime concern (Brinckerhoff, Shaw, & McGuire, 1993; Scott, 1994). Access to instruction relates to students’ being able to “get” what is going on in the classroom and, for that to happen, instructors may need to modify their teaching and communication style. For example, instead of referring to an overhead, instructors might read aloud the contents for a student who is blind. For a student who is hard of hearing, instructors might make an effort to face the class rather than the blackboard when speaking about notes on the board. In addition

to communication strategies, Warick (1997) also identified such instructional supports as accommodated exams and extra instruction.

Students may also require accommodations¹⁷ for program success, and these accommodations may take the form of alternative scheduling, reduced course load, alternate exam and assignment-testing means, priority registration, use of auxiliary aids (e.g., calculators and spell checkers), and course substitution (Lingen, 1993; Warick, 1997). A different course may be substituted in place of a conversational language course due to a student's disability affecting the learning of a language; in the case of students who are hard of hearing, difficulties hearing a foreign language may qualify them for a course substitution.

Access to services may include assistive listening devices, oral and sign interpreters, notetakers, tape recorders, preferential seating, room changes, and real-time closed captioning (Jones, 1993; Killeen & Hubka, 1999; Lingen, 1993; Patterson & Schmidt, 1992; Warick, 1997). There may also be a need for other types of supports such as speech and hearing services (including hearing testing, hearing consultation, equipment servicing, and speechreading classes), funding support, career counselling, upgrading services, and modified course loads for students (Lingen). (See Appendix C for a summary and definitions of these services.)

Schroedel and Watson (1991) found that interpreting services and notetaking services were used by 75% of the deaf students attending different types of post-secondary institutions. However, only 58% of deaf students at four-year colleges had tutoring services, compared to

¹⁷ This term was earlier defined in this section as follows: accommodations refer to changes in processes or services required for students with disabilities to access the university environment or to have equivalent experiences to those of non-disabled students.

75% at other institutions. This may have reflected the availability of the service, the researchers noted¹⁸. Menchel (1996) found slightly higher use of services in university than in high school among the deaf students he interviewed. Only seven of the students had used notetakers in high school.

In a Canadian study of students with disabilities, students who identified themselves as being hard of hearing and deaf were among the lowest users of all types of disability services compared to other disability groups. The study was conducted by Killen and Hubka (1999) under the auspices of the National Educational Association of Students with Disabilities. A total of 2,392 surveys were distributed in February and March, 1998, through disability offices and 153 surveys were also sent to students on NEADS' mailing lists. Overall 349 students from 102 different post-secondary institutions in Canada completed surveys.

Killeen & Hubka (1999) found that fewer students who are hard of hearing used exam accommodations, adaptive technology, and drugs or medical supplies than did other students with disabilities. For example, only 15.6% cited use of adaptive technology whereas the next lowest group was students with a mental health disability (27.8%) and the highest were blind and visually impaired students (65.5%). Only in the category of use of academic accommodations such as course or program modifications and extensions of assignment deadlines were they similar in usage to some other categories of students with disabilities.

¹⁸ Schroedel and Watson (1991) distributed questionnaires to 1,703 deaf students expected to graduate with the classes of either 1984 or 1985 with a vocational, associate's, bachelor's, master's, or doctoral degree. The completion rate of surveys was 44%; 743 students from 41 programs for deaf students across the United States filled out surveys.

With respect to the use of post-secondary support accommodations among students who are hard of hearing, Warick (1994a) found that 70% of students used notetaking services and 51% used tutoring, both of which are not highly visible services. More visible services were less used. A little over one-third used an assistive listening system and 22% reported using a sign interpreter while 12% used an oral interpreter. The use of sign interpreting is interesting insofar as the survey was specifically geared to youth who are hard of hearing who tend not to use sign language interpreting; however, it is possible that students who are deaf also completed the survey or that some students were encouraged to use a variety of communication means. Respondents reported little use of captioning in the classroom, a relatively new service at the time of the survey. Results are shown in Table 1 on the next page.

In comparing results between post-secondary and other students, Warick (1994a) found a higher use of notetaking by post-secondary respondents compared to grade/high school students. The finding may be related to availability of the service. Use of tutoring services was also higher by post-secondary students but there was less use of assistive listening systems and less use of the services of a speech therapist. The other difference was the high use of itinerant teachers by grade/high school students, although this is not unexpected because itinerant teachers are not provided at the university level.

Table 1

Frequency of Types of Support Used by Post-Secondary Students Who are Hard of Hearing^a

Category of Support	No. Responses	%
Notetaker	47	70
Tutor	34	51
FM System	24	36
Signing Interpreter	15	22
Oral Interpreter	8	12
Itinerant Teacher	6	9
Speech Therapist	5	7
Electronic Notetaking	4	5

^a Percentages relate to percentage of students who responded to the question; for example, 4 out of 98 students stated that they used electronic notetaking for a 5% rate. From A profile of Canadian hard of hearing youth by R. Warick (1994a), published in the *Journal of Speech-Language Pathology and Audiology*, 18, 253-259. Copyright by *Journal of Speech-Language Pathology and Audiology*. Reprinted with permission.

Warick (1994a) found that use of assistive listening devices, such as FM or Infrared technology,¹⁹ in elementary and secondary school was double the amount used in the post-secondary education environment. The use is low, despite the, often, lauded benefits of assistive devices. For example, Maxon (1992) noted that it is “a rare situation in which a child with a hearing loss cannot benefit from the positive signal-to-noise ratio provided by an FM system” (p. 109). However, the low use in the post-secondary context may be because assistive listening devices such as FM and Infrared systems have been found to have some drawbacks. As noted by one student, who attended a workshop that I facilitated:

The way they are designed, they are perfect for elementary school because the teacher is boss.... The problem is in senior high school and university: FM systems are not made for that at all, and it is a real problem. The worse thing I ever had in my life was a seminar class. They are terrible. You can't do anything with an FM system in a seminar class. (Warick, 1998, pp. 30-31)

McCormick, Pichora-Fuller, Paccioretti, and Lamb (1994) provide a further reason for non-use by participants in their project to provide hearing services at a Canadian university:

In a university environment, where appearances of cognitive and verbal competence are highly valued, some participants of the Post-Secondary Hearing Accessibility Project may have decided that the stigma (perceived or real) of a publicly displayed hearing impairment outweighed the potential benefits of disability-reducing rehabilitative measures, and that the course of action with the most favorable cost-benefit analysis was to continue making the effort needed to pass as normal hearing persons. (p. 264)

¹⁹ See the appendix for an explanation of these terms.

Technologies such as classroom captioning have been introduced in the last decade, and are gaining in use. Rumball (1996) noted that captioning worked better for her than any other access accommodation.

Captioning does not get 100 per cent of what is being said, but it still gives enough vital information. I have yet to see a better alternative to obtaining both interpreting and notetaking in one system. I came away with a real understanding of my classes and a sense of independence because I did not have to wait days for transcripts nor hope an oral interpreter would be available. (p. 17)

Menchel (1996) found that some of the low use of support services stemmed from students' lack of understanding of the need for support services, and ways to obtain them and use them to advantage. Some students regretted not making more use of support services.

Rodda and Hiron (1989) have suggested that without support services, students who are hard of hearing "are more likely to drop out, which tends to perpetuate the myth that they are unsuitable for higher education" (p. 49). This is not to say that lack of services is not a reason for withdrawal by deaf students; Walter et al. (1987) found that inadequate support services was one of three reasons for students' withdrawal, the others being a lack of communication with teachers and limited opportunities for social interaction with peers. In some cases students did not have support services. "In other cases, students had interpreters, notetakers, and tutors, and were still unsuccessful" (p. 17).

Although certain types of disability-related supports, such as notetaking services, are important, they do not erase previous academic deficits (Stinson & Walter, 1992; Walter et al., 1987). Such supports may also be inadequate to address social issues in mainstream

settings, particularly the informal type of peer interactions that take place outside of the classroom. Furthermore, Stinson and Walter indicated that there is a false assumption about support services. The assumption is that, once provided services, students who are deaf are expected to compete successfully with their hearing peers. As has been explained earlier under the academic section, there are still communication difficulties in receiving information for such students; a similar argument could be presented that accommodations for students who are hard of hearing do not provide for equality in the learning environment.

Another assumption is that if students are unsuccessful, failure is often attributed to a lack of innate ability or effort rather than to the educational environment or method of instruction. Stinson and Walter (1992) noted:

Even though a deaf person has access to college, he/she may remain isolated both socially and educationally from the mainstream. Such isolation or lack of integration into the educational community may be an important cause of attrition among deaf persons attending college. (p. 58)

One must look at, not only an individual's characteristics, but also the environment to determine what is happening (Antonson, 1998). To some extent, the nature of the environment mitigates against individual needs. "Teachers and students often have to work in an efficient way and at a high pace in order to remain on schedule. As a consequence, the individual and the individual's needs could suffer" (p. 250).

Attitudinal Barriers

Support services and accommodations may be insufficient if students encounter attitudinal barriers to post-secondary participation. In a survey of students with disabilities at

the University of British Columbia (Educational Measurement Research Group, University of British Columbia, 1994), students identified concerns about attitudes. Difficulties were experienced in interacting with instructors, getting lecture notes, taping lectures, completing assignments, accessing libraries, finding tutors, and participating in class discussions. In particular, students felt at a disadvantage having to ask for accommodation with respect to tests and assignments.

There were instances of a less than an accepting attitude on the part of instructors. Students mentioned "reluctance," "suspicion," "no empathy or understanding," "grudgingly accommodating," and "hard to convince" to describe some instructors' attitudes towards either the student or the request for test or assignment accommodation. (EMRG, 1994, p. 13)

Two-thirds of post-secondary instructors have limited contacts with individuals with disabilities (Leyser, Vogel, Brulle, & Wyland, 1998). They have little knowledge of their legal responsibilities to accommodate students with disabilities and have limited knowledge and skills for making requested educational accommodations for them. "Despite the limited knowledge base, a large majority of faculty expressed a supportive attitude toward students with disabilities by indicating their overall willingness (behavioral intent) to make needed instructional accommodations in their courses" (Leyser et al., p. 12). Instructors were willing to make accommodations, although their preference was for accommodations that did not require a substantive amount of time or major modifications of the usual teaching practices (Leyser et al.).

In a study of students with disabilities attending Canadian universities, students expressed concern about the power of others in making decisions for them (Hill, 1994). Students also stated that decision-makers were inflexible in responding to the unique needs of students with disabilities. They also felt that some students with disabilities were being treated more favorably than other students (e.g., mobility impaired students being treated more favorably than students with learning disabilities).

Swartz and Israelite (2000) found that some professors made assumptions about hearing loss based on a student's speech proficiency. The better the student spoke, the less inclined professors were to believe that their hearing had an effect on their ability to learn. "Students said they were sometimes accused of using their hearing loss as an excuse for poor academic performance" (p. 10). Another source of frustration found by Swartz and Israelite was that faculty and staff assumed that the needs, strengths, and preferences of all students who are hard of hearing are similar, if not identical, to those who are deaf. This created misunderstandings in that the needs of persons who are hard of hearing do differ from those who are deaf.

Menchel (1996) noted that, although numerous students reported that instructors were sensitive and understanding, some students found that instructors were often insensitive to needs related to their deafness. These students felt that some instructors "did not want to bother to make any special accommodations or even in some cases made it clear that they did not want a deaf student in their class" (p. 49). In these cases, students rearranged their schedule and dropped the class. Menchel described the students as taking responsibility for

resolving their problems, which contributed to these students' success in university.

These students appear to have a strong internal locus of control. When faced with insensitive instructors, problems with obtaining support services, and coping generally with the environment as a deaf student in a "hearing" institution, they assumed responsibility for resolving problems. (p. 42)

Social Integration

Tinto's (1987) model is predicated on the integration of students into the academic and social life of a post-secondary institution. Social integration refers to interactions with peers outside of the classroom and involvement in semi-formal extracurricular activities.

Successful encounters in these areas result in varying degrees of social communication, leadership support, faculty support, and collective affiliation, each of which can be viewed as important social rewards that become part of the person's generalized evaluation of the costs and benefit of college attendance and that modify his educational and institution commitments. (Tinto, 1975, p. 107)

Social integration is important to Tinto's model because it is one more dimension that can contribute to the commitment of the individual to persistence. It becomes a factor in the cost/benefit analysis of persistence versus drop-out. In a longitudinal pattern of behavior, social integration may heighten an individual's willingness to stay the course; an individual

with no social contacts with any university personnel and no involvement in any activities will have less invested and, therefore, there is less cost to leaving an institution.

Although Tinto's diagrammatic depiction of his model seems to imply equivalent importance of academic and social spheres of university life, Tinto (1993) has clarified that this is not the case. He acknowledged that some students can be academically integrated but have little or no social activity; however, the reverse cannot be the case because a lack of academic integration results in poor performance, which can lead to dismissal. It is not necessary that students be involved in all aspects of social life for them to be socially integrated. Even one area of involvement may be sufficient to create a sense of congruence with the social climate of the institution.

Peer Interactions

Peers are formative in the social integration of students. Student peers may play a role in reinforcing an institutional fit and individual commitment to completion (Bean, 1985; Pascarella & Chapman, 1983b). Student peers serve as agents of socialization, more so than informal faculty contacts (Bean). Involvement with peers may be a compensatory influence when students otherwise have low levels of commitment to the institution or to college graduation (Pascarella & Chapman).

Students in different faculties may have different levels of social involvement. "Frequency of interactions with peers to discuss academic topics had a significantly stronger positive influence on persistence for students majoring in the liberal arts than for students majoring in pre-professional or applied fields" (Pascarella & Chapman, 1983b, p. 41).

Involvement with peers may take many forms, from students chatting after class to meeting for lunch together to interacting in campus clubs. Pascarella and Chapman (1983b) suggested that Student Services should provide programs to promote peer integration. Andres et al. (1996) recommended that peer networking programs be established as a powerful way for students to assist each other.

Tinto (1997) recommended the establishment of shared learning communities to promote mutual learning and satisfy students' needs of meeting people and making friends. These needs are particularly prevalent during the first year of university when students are establishing new networks of social contacts. Making friends in a small, intimate residential university may be a relatively easy task compared to commuter institutions or very large institutions. Yet, in the latter institutions, the establishment of small learning communities presents a way for these communities to meet affiliation needs (Tinto). Institutional size has a negative effect on student social involvement (Pascarella & Terenzini, 1991).

Learning communities and networking groups may help students with hearing losses form attachments with hearing students. DeCaro and Foster (1992) noted that working together on projects is a way to increase dialogue and understanding among hearing students and students with hearing losses. A formal approach is required to overcome the peer difficulties, loneliness, isolation, and rejection that students with hearing losses experience, most particularly from hearing peers (Capelli et al., 1995; Charlson, Strong, & Gold, 1992). In particular, children who are orally deaf, especially those in primary grades, are more likely to be rejected by their peers than normally hearing children (Capelli et al.). Besides

communication barriers, there may be a lack of awareness of social customs and behaviors, which add to social difficulties (Garbe & Rodda, 1988).

For children with hearing losses in mainstream settings, peer interactions with other children who are deaf or hard of hearing may be more satisfying than interactions with hearing peers, but they have few opportunities for interactions (Stinson & Whitmire, 1991).

Responding to a question about peer groups, half of the youth who are hard of hearing indicated that they would be willing to join a group of hard of hearing peers (Warick, 1994a). However, of the total number of respondents, one-quarter did not want to join a peer group centred around being hard of hearing, and another quarter was uncertain about the prospect. Of those who were interested in joining a peer group, two-thirds of these students felt that socializing was an appropriate focus of group activity and half felt that self-help support was appropriate. (More than one answer was possible.) Bruce (1995) found that several post-secondary participants who are hard of hearing were interested in associating with Deaf individuals and in learning more about Deaf culture and sign language.

However, Menchel (1996) found that the students in his study did not decide to go to a particular institution to be with other students who are deaf nor did they have a particular interest in contacting other deaf students once on campus. "Each student had his or her own group of friends and, if there were other deaf students within that group, this happened more by chance than by intention" (p. 36). Furthermore, 31 of the 33 students taking part in the study made no effort to establish contact with the local Deaf community; the two exceptions to this established only limited contact.

Involvement in Campus Organizations

Membership in groups is one indicator of social involvement and it is felt that belonging to several organizations indicates considerable social involvement. Research findings are mixed on the involvement of students with hearing losses in campus life. Students who are deaf and hard of hearing in mainstream settings spend little or much less time in social and recreational activities compared to hearing students (Quigley et al., 1968). They spend more time studying and on academic work than their hearing counterparts. Quigley et al. concluded, "Success in regular college and universities for hearing impaired students requires more time for study and less for social activities than is the case for normal hearing students" (p. 101).

Antonson (1998) also found that few students who are deaf and hard of hearing took part in activities arranged on the campus such as joining an association or a club. Nor were they found to be social.

Being with other people in noisy premises was not enjoyable. They got too tired, quite simply, and wanted to go home and rest and then get on with their studies in order to e.g. try to fill in anything they might have missed at lectures, etc. (p. 248)

However, Menchel (1996) reported that the students in his group did not feel isolated nor did they feel left out of the social mainstream of college. Deafness did not stop these students from being involved in extra curricular activities, including sports, music, leadership positions in college organizations, working on the campus newspaper, coaching, and being part of a debating team. At the same time all of them maintained a B average.

Level of social interaction varies according to the individual (Foster, 1988; Schroedel & Watson, 1991). Schroedel and Watson (1991) found that 55% of deaf students were involved in student clubs and 35% were active in athletics; another 20% were involved in religious clubs. The type of post-secondary institution was felt to influence involvements. Participation rates were 75% from students in four-year colleges compared to 56% for those at technical institutions.

For all students, Walker (1999) concluded that athletic services were among the most used services by university students. In a survey of 23 institutions, 60% of students stated that they used athletic facilities; only use of campus bookstores, computer services, and advising by faculty received higher rankings.

Although social involvement is depicted as desirable to enhance integration into university life, Tinto (1975) has acknowledged that students who are too socially active may be at risk of dropout for poor performance if their social peers are not inclined academically. Students who are too socially active may not have sufficient time for studies (Stinson et al., 1987). Stinson and Walter (1992) found that being too engaged in social and extra-curricular activities, such as sports, fraternities and clubs, resulted in withdrawal for some deaf students:

One interpretation of this result is that students who participate in many activities in their first year can be overemphasizing their social involvement, which can result in withdrawal...they are more likely to devote insufficient effort to addressing the basic needs they must meet in order to be truly integrated into the college environment. (p. 53)

Some students avoid being too socially active by compartmentalizing activities to designated times. The following student, quoted in (Andres et al., 1996) appears to make distinctions between the week and the weekend:

I think that the more you get integrated into and you get to know everybody really good, I think it's just going to be the weekends are going to be like you're going to party during the night and stuff, but I think during the week it's going to get a lot more calmed down. (p. 85)

The question is whether the reverse of social integration, namely, being uninvolved socially, results in academic risk. As noted earlier, Tinto's retention model does not depict social integration to be of equivalent importance to academic integration. Thus, if a student is socially inactive, it does not necessarily mean academic risk, although it may lessen that person's commitment to the institution and contribute to voluntary withdrawal. Hanson and Taylor (1970) found voluntary withdrawers had less social contact than either persisting students or those required to drop out for academic failure. In this respect, it may not be the actual social contact that is the issue so much as students' perception of their "social fit." Rootman (1972) suggested that it is the individual's perceptions of social integration, rather than the actuality, that are important in persistence.

Foster and Elliott (1986), Stinson and Walter (1997), and Walter et al. (1987) consider failure to make an adequate social adjustment, a major reason that students who are deaf and hard of hearing leave college before completion. Walter et al. (1987) interviewed students who dropped out and found that a contributing factor was limited opportunities for social interaction with peers. The researchers concluded that "social integration may be even

more difficult to achieve than academic integration, since the former is less amenable to formal intervention and support services” (p. 18). Students who are deaf and hard of hearing are isolated because so much socialization occurs in cafeterias and hallways, which are informal social settings (Walter et al.).

Communication difficulties are often the reason for a lack of social involvement. Foster and Elliott (1986) interviewed 20 transferring students who stated that communication difficulties existed despite the provision of interpreters and additional support services. Schein (1991) also noted that communication difficulties might make social interactions difficult.

Social Integration at Different Types of Institutions

Students who attend residential universities are more likely to be socially involved than students who attend commuter institutions (Andres et al., 1996; Pascarella & Chapman, 1983a). For students at residential institutions, their close proximity to activities enhanced involvement (Pace, 1990; Pascarella & Chapman, 1983b). However, even among residential institutions there may be some differences. Pascarella and Chapman (1983b) found that students at four-year residential institutions, versus those at two-year colleges, were more likely to be socially integrated.

Students attending two-year and four-year commuter institutions place less importance on social activities than on academic integration (Andres et al., 1996; Pascarella & Chapman, 1983a). Pascarella & Chapman noted that “the social and cultural experience of college by commuter students may be so limited that it assumes a much less pronounced role in

voluntary decisions to stay or leave than it does for students at primarily residential universities” (p. 99).

Size of the institution also makes a difference. Student isolation and anonymity is likely to be greater in large institutions (Pascarella & Terenzini, 1991).

Social Integration for Different Types of Students

Older students tend to have social networks away from campus; some may be heads of households with primary family responsibilities. They do not have the time or the inclination for campus social activities (Metzner & Bean, 1987). Andres et al. (1996) found that social integration was not as important for the students in their study, regardless of the type of institution they attended, whether universities, college transfer institutions, or community colleges. Many of their students were over 24 years old and most were considered to be non-traditional students.

However, even first-year students, regardless of age, may have little time for social activities. Andres et al. (1996) found that first-year students feel pressed by a lack of time for juggling family and school responsibilities, and, hence, have difficulty engaging in campus social activities. Hawkey (2000) found that, over the course of their studies, upper level students moved away from social preoccupations and toward more academically-oriented activities. They were less likely to be involved in social outings, campus sports or campus clubs than were students in their first two years of university study. However, Terenzini & Wright (1987) found that senior students were likely to seek academic-related friendships and activities to socialize themselves into their major academic fields.

There are gender differences (Astin, 1975, 1993; Clifton, 1997; Guppy & Trew, 1995; Magolda, 1992; Spady, 1970, 1971). In a survey of students, Guppy & Trew (1995) found that women were less satisfied than men with their academic experience and with academic advising, whereas men were less satisfied than women with their academic progress and the quality of their course instruction. Astin noted that gender differences in roles and responsibilities may affect retention, with the demands of home and family resulting in voluntary withdrawal for some students. Other factors enter into retention decisions. Spady (1971) found that female students' decisions to remain or leave university was influenced by their general commitment to university and only secondarily by academic variables such as grade point average. However, for men grade performance was their primary determinant in the dropout process.

More often than not, the reactions and behavior of the women have rested on primarily intrinsic, subjective, and social criteria, with academic and performance factors playing a more secondary role.... Not only is academic performance a less important component of their overall satisfaction in the College, they also seem more capable of adjusting to the realities (and deprivations) of the grading system. (Spady, 1971, 60-61)

In terms of retention, the emphasis by women on relationships means that they are more influenced than men by forms of social integration or the lack of them, not solely by academic factors (Pascarella & Terenzini, 1983; Tinto, 1993). Clifton (1997) surveyed university education students in 1987 and again in 1992, obtaining 308 completed questionnaires for a 76% response rate in 1987 and 261 questionnaires for a 72% response rate for the second survey. Gender was identified as an exogenous variable in his

analysis. Clifton found that because women have more positive social psychological dispositions, they have a more positive evaluation of the social environment than men and are more motivated to succeed than men.

Career Issues

Positioning themselves for the labour market is an ultimate purpose of a post-secondary education for most students (Astin, 1993). Over three-quarters of students entering college provide "getting a job" as their reason for college attendance (Astin). Career development ranked ahead of becoming more educated and enhancing personal development as reasons for post-secondary education. If students consider university completion as important to their career prospects, their retention is enhanced. However, career advancement is not the only reason for university. Personal development ranks high on many students' lists as their prime reason for advanced study (Astin).

Walker (1999) found that older students were more likely than younger students to have decided on their careers or occupations. At one institution, only 6.8% of students expected not to have difficulty finding suitable career-related employment after graduation; 51% expected "much" to "very much" difficulty (Walker).

Students with disabilities tend to encounter more difficulties securing employment than non-disabled students. They face barriers related to their disabilities, such as discrimination in employment practices, lack of access to training, negative employer attitudes, and the ineffectiveness of federal employment equity and human rights legislation (National Educational Association of Disabled Students, 1995). Twenty percent of students

who are hard of hearing perceived that their parents limited their career aspirations because of considerations of their hearing loss (Warick, 1994a).

Organizational Issues

Thus far, the discussion about academic and social systems has been separated in this chapter in keeping with Tinto's model that defines these as two systems, albeit overlapping, with both their formal and informal aspects. As identified earlier, missing from this framework is a consideration of the dynamics between the individual and the institution. Bourdieu's concept of field of forces, which was introduced at the outset of this chapter, provides a way to examine the field of forces at play that affect an agent's, namely, a student's, actions. Overriding all of a student's actions are the issues related to the purpose and nature of the university.

Debates have raged for some time about the purpose of universities (Barnett, 1990; Newman, 1852/1959; Pelikan, 1992; Sanderson, 1991). One view is that universities exist for utilitarian purposes, and the acquisition of knowledge is undertaken to apply it for specific purposes (Sanderson, 1991); thus, universities have vocational ends. The contrary view is that the purpose of universities is to educate its citizens, to provide them with a liberal education to learn for its own sake (Newman, 1852/1959; Pelikan, 1992). Another view is that universities encompass different purposes, combining elements of both utilitarianism and liberalism (Barnett). Bourdieu and Passeron (1979) take the view that the purpose of universities is to maintain the social order in society. "Among other functions, the educational system is required to produce individuals who are selected and arranged in a hierarchy once

and for all, for their whole lifetime” (Bourdieu & Passeron, p. 68). The university’s “ultimate function is to ensure the acceptance of cultural values” (p.43). Because students from lower classes have some hope of a share in the privileges of the bourgeoisie, whether realistic or not, they tend to accept the values of the system and do not challenge the implicit ideology of the university.

University as Community

Regardless of its purpose, Tinto (1993) described the university as a community or series of communities, and the nature of the communities of a particular university will affect the nature of an individual’s integration. Each subculture or community has its own distinct view of the world and helps to define the nature of a university’s academic and social system. As noted by Tinto, the academic culture defines, in effect, what is appropriate and what is deviant for students. Thus, students are faced with a socialization process in adapting to and adopting the culture and community of their particular university, and departure may reflect a mismatch between the student and the institution. “Student institutional departure is as much a reflection of the attributes of those communities, and therefore of the institution, as it is of the attributes of the students who enter that institution” (Tinto, p. 136).

Students’ views about their institution may have an influence on students’ commitments to it. With-in college attributes, such as the student participation in the decision-making processes at an institution, communication, and perceptions of fairness, affect students’ academic and social integration (Braxton & Brier, 1989).

If an institution is seen as unfriendly and uncaring, the assumption is that students may be less involved and, hence, less committed to it. However, an institution may be criticized as being impersonal, yet its stature and reputation lessen the impact of a negative climate. Of one university, some students found it impersonal and other students stated that they were proud to be studying at it (Student Services Working Group, UBC, 1995).

A university may not just be one community or have one culture. There may be a variety of different communities and, insofar as students may find a niche, it will enhance the students' learning and retention. "Membership in multiple communities allows individuals to play out a multiplicity of roles and satisfy a range of needs," according to Tinto (1993, p. 122). Thus, Tinto observed that his retention model "is a model of educational communities that places the classroom at its very center" (p. 137).

However, the notion of community is not one with which students readily identify, Hawkey (2000) found. She interviewed students at a research-intensive university and found that they were more likely to identify with an academic discipline community, than to feel part of a university community. Their membership in the discipline community was facilitated when they selected their academic major; as well, such membership enhanced their identity formation as part of a discipline.

Hawkey (2000) and Pace (1990) found that there were notable differences in formal program requirements in different faculties, namely that the actual requirements of a discipline varied from one faculty to another at the same institution. There can be so much variation from one faculty to another, that there is more diversity in a single institution than between different types of institutions (Pace). Pace found that students who majored in humanities or

social sciences were much more involved than students in the sciences, engineering or business. They had more use of the library, more contacts with faculty members, and gained more experience in writing, and activities related to the arts. They were also more active in broadening the range of their student friendships and experiences related to self-understanding than were engineering or business students.

The culture of universities frequently receives negative ratings compared to colleges. Townsend (1995) found that students who have attended both college and university regarded university as being more competitive and course standards to be higher than in college. Universities placed more emphasis on writing and critical thinking than did colleges. Many college transfer students felt colleges were smaller, friendlier and more supportive than universities (Andres, 2001).

Not all of the commentary about universities is negative in comparison to colleges. Liberal arts colleges were rated high in promoting student activities and outcomes (Pace, 1990). As well, students may value a university over other types of post-secondary institutions to the extent that they are willing to accept disliked aspects. Participants of a study by Andres et al. (1996) reported being concerned about the university placing too much emphasis on research at the expense of teaching, yet stated a clear preference for being at a university over attending a college.

Student and Institutional Services

One of the issues in the retention of students is whether their transition process to a new institution is effective and enhances their persistence. There is some suggestion that new

students, in particular, require special attention in making a transition to their new environment. Van Gennep's (1908/1960) theory of rites of passages suggests that new students are going through stages of separation marked by a decline in interactions with past associations; transition, in which there are interactions with new members; and finally, incorporation, which involves taking on new patterns of interactions with new contacts. Translated to the educational context, this means that students are moving from prior forms of schooling to a new institution with altogether different expectations and demands; however, Tinto (1993) cautioned about over-simplifying a complex, fluid situation and against considering the stages of separation, transition and incorporation as clearly distinct and sequential.

In the transition process, the extent to which students are able to commit to the new institution is an internal process, dependent on how these new students perceive their experiences relative to their expectations. Witte, Forbes, and Witte (2002) discuss changes in terms of developmental theories and note that strong identity formation enhances the ability of students to interact in a new environment.

Billson and Brooks Terry (1987) have defined nine institutional stages in the transition process: Outreach, Recruitment, Selection, Assessment, Preparation, Orientations, Integration, Maintenance, and Separation. They advocated for institutional support at each of the foregoing stages. Beatty-Guenter (1994) used four categories to separate out different retention strategies, as follows: (1) sorting to refer to strategies aimed at placing students into post-secondary programs best suited to their goals, abilities or status, such as 'at risk' status; (2) supporting, which involves assistance to students in meeting their financial, family, or

housing needs; (3) connecting, which includes techniques to increase student involvement and integration into the institution, and, finally, (4) transforming to refer to change initiatives, such as career counseling, or curricular reform. She noted that sorting and supporting are reactive strategies insofar as they react to problems, while connecting strategies are interactive in endeavoring to establish meaningful interaction between the student and the institution. Transforming strategies are proactive; they attempt changes in either or both students and post-secondary institutions in advance and, therefore, head off problems. Beatty-Guenter (1992) noted that strategies of institutional transformation are particularly appealing because they do not center only upon student retention, but act to improve all aspects of the teaching, learning, and working environment. Furthermore, "it may be that nothing short of institutional transformation will have a significant impact on endemic student attrition" (p. 45), although it may also be that the problems encountered by students are beyond the scope of an institution, and only piecemeal improvements will make a difference.

Typically, Student Services have been leaders in offering student retention programs, but Tinto (1993) argued that faculty members also have a responsibility in this area. He explained that this is important because many students spend most of their time in classes and have little interaction with institutional staff other than faculty members. Andres et al. (1996) recommended that faculty incorporate instruction in library, writing, and research skills in their courses because students might not otherwise access stand-alone courses.

The foregoing is not to discount the importance of student service programs in promoting the involvement of students. A variety of such programs have been described in the literature (Andres et al., 1996; Guppy & Bednarski, 1993; Tinto, 1993). Not only is an array of

programs important but so, too, is an approachable manner by student services staff (Andres et al.). Andres et al. found that students who had experienced uncaring behavior by staff in various Student Services were reluctant to ask for assistance for fear of a negative response. With respect to resources such as counselling services, these students preferred to turn to a friend. In terms of resources such as the library, which they described positively, they were not ready to use some of its capabilities, such as CD ROM technology. Furthermore, students were often unaware of available resources.

The importance of support networks is underscored by findings in a study of reasons why students left high school. For some, their departure was more an act of an escape from negative circumstances than a strong desire to do something else, and one-third of these students felt that something could have been done to keep them in school (Larter & Cheng, 1979). Institutional interventions are particularly important for first-year students given the adjustment difficulties that these students may face in a new environment (Tinto, 1988).

Institutional interventions for first-year students are being tried at different universities (Arnason, 2002; Heal, 2000; Reed & O'Callaghan, 2000; Teasdale, 2000). At the National Technical Institute for the Deaf a learning community was created for 14 deaf freshmen students with low reading and writing test scores (De Filippo et al., 1999). NTID project participants were all enrolled in the same section of English, Freshman Seminar, and a course in critical thinking. They were assigned an academic counselor who followed their progress; as well, an older student who was deaf was their Teaching Assistant for the Freshman Seminar. The instructor team and researchers for the project held weekly staff meetings throughout the year to discuss the project and the students' progress. A control group was also set up.

Data collection from the study involved instructor perspectives of efforts expended by students, students' class attendance, record-keeping of the timeliness of assignment completion, and a review of the grade performance of students. As well, students were interviewed and were given a survey of 28 Likert items to indicate their perceptions of themselves as students and as members of the campus community.

The students involved in the learning community were found to have a higher rate of class attendance, to have higher rates of assignment timeliness and to have completed more courses than the control group. In addition, they were perceived by instructors to be expending above average effort. However, students appeared to be less confident about handling college work than control group students, although the researchers noted that they were surprised to find these students were those who were performing best academically. "Upon reflection, this might be explained as a case of reality tempering some early enthusiasm" (De Filippo et al., 1999, p. 175). The researchers planned to continue the project and to monitor the students until they exit from college.

Disability Support Services

Universities are generally considered receptive to providing support services to students who are hard of hearing (Schein, 1991), but the post-secondary environment does not provide organized institutional support for the needs of these students in the same way as secondary school, according to Patterson and Schmidt (1992). Almost all universities have a

Disability Services Office (DSO) and professional staff who meet with students to discuss and deal with their accommodations. Menchel (1996) found that services provided by institutions varied from campus to campus, with some doing a good job and others, less so. All too often the needs of post-secondary students who are hard of hearing are overlooked; furthermore, their needs are not differentiated from the needs of students who are deaf, in terms of services and programs (Belknap, 1996).

Patterson and Schmidt (1992) noted that most post-secondary educational institutions do not have personnel specifically trained to assist with the education of the student with a hearing loss. They added that where numbers of students warrant it, institutions may have specially trained staff, but at most institutions less than 5% of the students with disabilities population have a hearing loss. Financial resources do not enable an exclusive focus on a relatively small-sized population relative to other groups of students with disabilities.

When the student with a hearing loss enrolls in a college or university program, he or she may be confronted for the first time with an educational experience lacking professional support specific to his or her needs (Patterson & Schmidt, 1992). The responsibility for obtaining an education and support services is left to the student in the new environment, in contrast to previous experiences (Menchel, 1996; Patterson & Schmidt). As noted by Patterson and Schmidt, it is the student's responsibility to be his or her own advocate.

The student should find the handicap support person on campus and enlist his or her help when necessary. The student should let the instructor and/or the other students know when he or she fails to hear or understand something which was said. This may be especially true if the student wears a hearing aid, since most people are unaware that wearing a hearing aid does not make one's hearing perfect. (p. 49)

Part of the emphasis on taking responsibility is recognizing that the post-secondary environment is different from previous forms of schooling and so, too, are expectations of parental involvement in one's schooling. As noted by Kingsbury (1997), at the post-secondary level students who are hard of hearing must take responsibility for themselves: "Your parents, or the teachers, will not take the responsibility once you reach post-secondary level" (p. 15). University students with hearing losses must be fully aware of their needs, and what the campus offers, in order to make wise choices (Patterson & Schmidt, 1992). This is a high level of expectation of students. All too often an awareness of what is available is lacking, noted Lingen (1993):

Many integrated students are not aware that the services they have relied on in high school (such as tutorials, note taking and assignment modifications) do not automatically continue in the university or college setting. Students often do not understand that they must pursue and advocate for these services if they are to receive equal opportunity and access at the post-secondary level. (p. 10)

Menchel (1996) stated that service providers found that some students were overly dependent on them. They "wanted the service providers to take on the role of their parents and resolve all of their problems for them" (p. 51). This was clearly not viewed as the role of the disability service provider by the occupants of the role. Moreover, the problem is compounded when key administrators, faculty and staff are often not aware of the diversity and differences among deaf students and the different kinds of support services they require. "It is assumed that all deaf students who wish to enroll in that institution will be similar and that a new deaf student will need the same services" (Menchel, p. 56).

Physical Environment

Although physical barriers are probably easier to remove than attitudinal barriers (Wilchesky, 1986), they continue to be a major issue. As mentioned previously, university students with disabilities rated physical access as their areas of greatest difficulty (EMRG, 1994).

Considering the physical environment represents a shift from focusing only on the individual to recognizing that the environment contributes to accessibility. At one time the emphasis was on the rehabilitation of the individual with the individual being required to adapt to the environment. Over the last two decades recognition has occurred that environmental adaptations are also required and that, it is not only a matter of individual habilitation but also of environmental adaptations for all people with disabilities (Warick, 1994b).

A poor acoustic environment can make hearing more difficult. Excessive classroom noise and/or reverberation can be detrimental and affect the academic achievement of students with hearing losses (Crandell, Smaldino, & Anderson, 2000). Hearing aid users can be assisted or impeded by the environment (Schein, 1991). For example, hearing aid wearers will find that hard surfaces reflect sound and create echoes that impair the ability of their hearing aid to perform. However, the "use of drapes on windows, acoustic ceiling tile, and carpets will dampen sound and vastly improve the functioning of hearing aids" (Schein, p. 150).

Unfortunately, most post-secondary classrooms place students who are hard of hearing at a decided disadvantage. Hodgson (1994) found that none of the 45 of 450 classrooms

surveyed at a Canadian post-secondary institution met the ideal classroom speech intelligibility standard. Half of the classrooms were good and the rest were fair.

Usually room standards are set for those with normal hearing, and thus someone with a hearing loss is at an additional disadvantage (Laszlo, 1995). Furthermore, Ross (1992) noted that the effect of noise is disproportionately greater on persons who are hard of hearing than on those with normal hearing. Many university venues are below par listening situations: they include classrooms, cafeterias and outdoor spaces. Almost every classroom has problems in terms of reverberation, noise, and distance; these factors negatively affect speech recognition (Hughes, Cantlie, & Rodda, 1995).

The result of a poor acoustic environment is that students who are hard of hearing miss out on opportunities for socializing with students, and this will impact on social relations. These students miss the informal interactions that contribute to a student having feelings of being integrated into a social environment. The extent to which this is the case varies with the individual and the setting.

Financial Aid

Financial aid for post-secondary education has been stressed in terms of providing access; there has been less discussion about its role in relation to persistence (Moline, 1987). Pascarella and Terenzini (1991) noted that results of research on the impact of receiving financial aid during college on persistence were mixed. Although some studies suggest that aid increases persistence, others have not found this to be the case. For example, Moline found that awarding larger amounts of financial aid to students, or aid in the specific form of

grants, did not affect persistence, whereas Astin (1975, 1993) found scholarships and grants to have a positive effect, in contrast to that of loans.

Yet, students themselves raise the issue of costs of getting a post-secondary education (Andres et al., 1996; Looker, 1997). Students expressed concerns about the cost of university and frequently considered a cost-benefit analysis. One student, quoted in Andres et al. wondered:

I don't know if I'm going to come back to university next year...I don't know for sure...I need to take some time off...Right now, if I have the grades I have now, then I've just wasted \$6,000. (p .98)

For students with disabilities, there are potentially additional expenses related to their disability. There is also the issue of sufficient funds for institutions to provide services and supports required by students with disabilities (Hill, 1992, 1994).

Summary

In this chapter, the research about the retention, persistence and quality of the post-secondary experience of students in university was reviewed. The literature was examined in terms of students' characteristics and transition experiences, followed by a discussion of academic aspects of university life from the quality of the learning experience to faculty contact and the impact of course grades on persistence. This was followed by an exploration of social dimensions, including the role of peers and social organizations. Issues such as the impact of being overly socially involved were reviewed. A discussion of organizational aspects concluded the chapter, covering issues such as university culture and physical

environment. Throughout the chapter, the experiences of students who are hard of hearing were incorporated, where findings pertained to the subject.

A picture emerged that showed that students who are hard of hearing may face considerable academic and social challenges in university, not the least of which is their difficulty hearing in the classroom, which could affect their participation in class. Disability-related accommodations and supports may help to ameliorate the hearing difficulties encountered but they do not take away the disadvantages of a hearing loss. Students may be mainstreamed but not integrated and, therefore, are visitors to the classroom rather than being full members.

Compared to other groups of students with disabilities, students who are hard of hearing are relatively low users of services (Killeen & Hubka, 1999). The low use of services could relate to lack of encouragement, inadequate awareness of services, and, perhaps, to reluctance be identified as a person with a disability by virtue of service use. Israelite et al. (2002) discussed how students who are hard of hearing endeavor "to fit in" in order to resemble the dominant group -- hearing persons. The construction of their identity is based on comparisons to those who can hear or who are deaf. Because they have some hearing and do not sign, they do not identify themselves as being deaf. Nevertheless, they do not hear the same as most hearing persons, and so they know they are different from them. Yet, they want to avoid the stigma associated with difference and being treated as an other.

Frameworks for exploring the experiences of university students who are hard of hearing were identified and discussed in this chapter. Tinto's (1987) retention model was outlined and was felt to be a useful framework because it provides descriptive categories for

identifying a range of academic and social issues facing students in university. Furthermore, a wealth of research has been conducted on similar themes expressed in his model.

Because much of the retention literature has focused on the individual, concepts for recognizing that students are not independent actors were explored. Bourdieu's (1984, 1991) concept of field of forces was explored for its usefulness in providing a theoretical perspective, for analyzing the way in which the experiences of students who are hard of hearing are shaped in the academy, recognizing that students are agents within a structure impacting on their lives. The agency-structure concept provides a means to ensure that structural issues receive due attention throughout the examination of the experiences of students who are hard of hearing.

CHAPTER THREE

RESEARCH DESIGN

The purpose of this chapter is to outline the research paradigm used for this study and to discuss theoretical and methodological research issues. As well, the method for the study is outlined and the participants involved in the study are introduced.

The goal of this study was to understand the nature of the university experiences of students who are hard of hearing. Three research components were intended to capture these students' perceptions of their experiences: 1) a series of initial, face-to-face interviews; 2) follow-up interviews with the same students who participated in the first interview, and 3) at least weekly journal entries completed by participants for a three-week period. The field research commenced in the fall of 1999 and concluded in the winter, 2000.

Research Framework

Interpretative Paradigm

My research study was qualitative in nature, using an interpretive paradigm²⁰. The essence of such a paradigm is a focus on the products of the human mind and its inner-lived experiences (Smith & Heshusius, 1986). Qualitative research searches "for a deeper

²⁰ "Paradigm" refers to an accepted model or tradition of theory and practice (Kuhn, 1970). This definition is considered to encompass both theory and practice (Brannen, 1992) and to denote a comprehensive system of thinking that governs scientific research. Given these definitions, this thesis is based on the assumption that interpretive research is a paradigm that has both theoretical and practical implications for my research.

understanding of the participants' lived experience of the phenomena" (Marshall & Rossman, 1999, p. 60). It involves "the interpretation of the interpretations people give to their own subjective experiences" (Smith, 1989, p. 124).

An interpretive paradigm lent itself to my study of the post-secondary experiences of students who are hard of hearing, as told from the students' perspectives, because it emphasizes the importance of individual experiences as perceived by the participants themselves. An interpretive approach places individuals' voices foremost in the research, and ensures that the individuals' perceptions shape the findings and inform the theoretical constructs which might arise from the research. To date, there have been few studies where the voices of students who are hard of hearing have been heard.

An interpretive approach also lent itself to incorporating multiple perspectives. In the case of my study, participants provided their perspectives several times: during an initial interview, during a second interview, and through journal entries. Three different time periods for gaining the students' perspectives enriched the study.

An interpretive approach was also beneficial in that it recognizes, and embraces, the researcher as integral to the research process. Because I have a hearing loss and am also a university student, I share much in common with the participants of my study. I feel that these similarities strengthened my research and provided me with valuable knowledge and experience to aid in designing the study and in interpreting the experiences of the participants in my study.

Interpretive Research: Theoretical Issues

Within the framework of qualitative research, interpretative research²¹ has defined epistemological, methodological, ontological and axiological assumptions for the conduct of research. Each will be discussed subsequently. There is some overlap in the discussion of these issues because, by its nature, interpretative research is holistic and so epistemological issues are related to ontological ones. In a subsequent section, pragmatic issues related to the actual conduct of the research will be discussed.

Epistemology: Researcher's Stance in Relation to Subject

There are four elements to the researcher's stance: first, relationship to the participant; second, the role of the researcher in interpreting participant findings; third, the researcher's own perceptions about the subject, and, fourth, the researcher's presentation of results.

On the first issue, relationship to the participant, the researcher endeavors to understand human experience through "empathy with the subject of one's enquiries" (Miles & Huberman, 1994, p. 8). Understanding is generated by getting "inside" the participant's world (Lincoln & Guba, 1985). Interaction between the researcher and research participants is part of the research process. "The knower and known are interactive, inseparable" (Lincoln & Guba, p. 37). The relationship between the researcher and the participant is "a dyadic interaction where the knower and known are inseparable" (LeCompte, 1990, p. 252).

²¹ Interpretive research is sometimes considered to be one of two types of a qualitative paradigm, the other being critical theory (Denzin & Lincoln, 1994; LeCompte & Preissle, 1993; Palys, 1997; Skrtic, 1990). Instead of interpretative, Lincoln & Guba (1985) have used the term "naturalist paradigm" and Guba (1990) "constructivism." Palys (1997) explained that different terminology is used because descriptions are still evolving. As well, some researchers have argued that qualitative research has no theory or paradigm distinctly its own, nor does it have a distinct set of methods entirely its own (Denzin & Lincoln, 1994).

With respect to the second issue of interpreting results, researchers are called upon to do “a great deal of interpretation to understand what in the world is happening because the meanings are slippery and multidimensional” (McCutcheon, 1990, p. 281). Qualitative researchers are not merely translators or technical accountants filing the data into this category or that. According to McCutcheon,

we are also meaning developers. Although the data can “speak” to us as analyses emerge out of the data, it is through our active, mental work that we develop interpretations, and this is the more significant part of treating our work where we knit together seemingly disparate data and convey their meanings. (p. 281)

Interpretivism is sometimes described as “storytelling.” As noted by Greene (1990), the grounding of interpretivism in phenomenology, hermeneutics and value pluralism gives the impression that an interpretive researcher seeks to tell the story of the persons being interviewed. However, she finds this to be an over-simplification of the process of interpretive research. Rather than simply being a conduit for others’ stories, Greene maintains that the researcher must analyze those stories in order to convey their essence.

On the third issue of researcher perceptions, the interpretive paradigm embraces the researcher’s perceptions and experiences as an important component of the process of the research. It is expected that the researcher’s perceptions will be integrated into the research.

On the fourth point about presentation, descriptions should be “thick” for a reader to have “a vicarious, déjà vu experience...to aid the reader in understanding the nuances and subtleties of conflict and agreement *in this place and at this time*” (Lincoln, 1990, p. 73).

Researchers are expected to integrate the personal with the scientific in their presentation, and to “demonstrate the passion, the commitment and the involvement of the inquirer with his or her coparticipants in the inquiry” (Lincoln, p. 73).

To sum up the relationship of the foregoing points to my research project, I have a responsibility to be true to my research findings while endeavoring to uncover their meanings. The process of doing so is not only a rational one but also intuitive. Furthermore, it is appropriate for me to incorporate my own perceptions and experiences in the study, more so because I am a person who fits the definition of my study, being both a university student and hard of hearing. In any case, interpretive research acknowledges that it is impossible for researchers to separate out their perceptions; the perceptions permeate the entire research process. Indeed, that is considered to be a positive aspect of interpretive research.

Methodology: Relationship between Theory/Concepts and Research

The impetus for a qualitative inquiry can come from a researcher’s review of the literature and existing theoretical traditions or from direct experience, tacit theories²², political commitments, and interests in practice (Marshall & Rossman, 1999). The process of conceptualizing, framing, and focusing a study is complex. There is an inter-play of personal observation with a theoretical rationale that leads to focusing the research question and making decisions about where to go, what to look for, and how to move to real-world observations (Marshall & Rossman).

²² Tacit theory refers to one’s personal understanding as contrasted with formal theory which emerges from the literature review (Marshall & Rossman, 1999).

This early conceptualization work is the most difficult and intellectually rigorous of the entire process of proposal writing. It is messy and dialectic, as alternative frames (scholarly traditions) are examined for their power to illuminate and sharpen the research focus. (Marshall & Rossman, 1999, p. 32)

Marshall and Rossman (1999) refer to this process as being a “cycle of inquiry” which expresses the dynamic relationship between the different components of the research process. In this process, the researcher moves from personal theory to formal theory. “These [theoretical assumptions] coalesce to frame a focus for the study in the form of a research question” (Marshall & Rossman, p. 29). Thus, the study may seek to modify or adjust the theory based on the feedback of informants in the study (Creswell, 1994). Or, a theory may emerge during the data collection and analysis phase of the research or be used relatively late in the research process as a basis for comparison with other theories (Creswell).

Researchers pursue the complex realities of people’s lives, not solely for their own sakes. “Rather, this route was undertaken in order to understand, as comprehensively as possible, the relations among the aspects of reality (or variables) of ultimate interest to us” (Holloway & Jefferson, 2000, p. 105).

According to Tesch (1990), research data are examined in order to identify and categorize elements and to establish connections that are meaning-oriented.

The purpose of discovering such relationships is to postulate conceptual linkages or, to use a more traditional terminology, to generate plausible hypotheses. Although not strictly seeking generalizations, these research approaches are theory-building in the sense that they aim at stripping away the particulars and arriving at some underlying principle that is likely to apply to similar situations. (Tesch, p. 98)

Research questions or guiding hypotheses are framed at the outset of the study to guide the researcher. To arrive at guiding hypotheses, Marshall and Rossman (1999) noted that the researcher would ask the following questions:

What is my focus? What will be the most creative and useful questions? What do I assume or guess I will see? What settings and populations can I observe and gather data from to explore these questions? What will I look at? How do I connect the concepts in the literature to behaviors and interactions in natural settings? (p. 30)

Thus, interpretive research generates working hypotheses that are context-specific, and connected to often emergent inquiry, which may or may not be informed by existing knowledge (Greene, 1990). The working hypothetical explanation may be discarded in favour of a new one if not found supported by the research; the explanation is confirmed if several cases support it (Brannen, 1992).

Furthermore, interpretive researchers have great flexibility in changing and modifying their approach as they do research. Researchers can change their questions at any point during a qualitative study (Carspecken, 1996). The dynamic nature of interpretive research necessitates the constant rethinking of all working hypotheses and research questions.

In my case, my interest in the topic of the university experiences of students who are hard of hearing arose from a number of sources: previous research on youth who are hard of hearing, prior experience as a student navigating university, life experiences of having a hearing loss, and an interest in retention theory of students in general. I felt that it would be useful to combine an interest in general retention theory with considerations of the experiences of students who are hard of hearing. Thus, in this study, I proceeded to outline

retention theories in the literature review in order to describe what has been suggested about the experiences of university students. Tinto's retention theory, with some modifications (Andres et al., 1996; Bean, 1980; Benjamin & Hollings, 1995; Metzner & Bean, 1987; Pascarella, 1980; Pascarella & Chapman, 1983b) served as a useful starting point for informing my study. My findings may either lend support to these theories or suggest that there be further study for modifications. It is possible that my findings will yield insight about the merits of retention theories for students who are hard of hearing, in which case I may be in a position to contribute to retention theories based on my research.

As indicated in the literature review, the weakness of various retention models and research tends to ignore the juxtaposition between the individual as an agent and the structures of the educational system. The agency-structure nexus, expounded by Andres et al. (1996), which draws on the work of Bourdieu's (1984) field of forces concept, offers an approach for examining this issue. My findings will help determine if this approach has utility for examining the experiences of students who are hard of hearing.

At the outset of my research I framed several research questions, which are described in the section on research strategy later in this chapter. Under these headings questions about the identity and transition of students who are hard of hearing were incorporated. After my review of the data, I realized that these topics merited recognition as separate research questions. This type of modification to the original research design is in keeping with the cyclical nature of interpretive research as outlined by Marshall and Rossman (1999).

Ontology: Image of Social Reality and Nature of Knowledge

There are five salient aspects to interpretive knowledge. As outlined by Greene (1990), interpretive knowledge is grounded, *emic* in nature, holistic, internally consistent, and value-bound. These aspects are explained subsequently.

Grounded. This means that knowledge is discovered and justified from field investigations and an inductive methodology. It is not developed from armchair speculations or elegant deductive reasoning (Guba & Lincoln, 1988). Interpretivists seek to understand the nature of a phenomenon and rather than looking for a structure, researchers seek to capture the essence of a matter (McCutcheon, 1990). Knowledge is socially constructed (Greene, 1990).

Emic. Emic knowledge refers to knowing what those being studied think, as opposed to etic, which refers to the researcher's views (Creswell, 1998). Another comparison between emic and etic is offered by Denzin (1994). Emic means seeking contextual, situated understandings, whereas etic is abstract, non-contextualized interpretations (Denzin). An emic approach places the focus on the individuals involved in the research project and the underlying meaning of their experiences (Greene, 1990). However, the focus on participants is not the sole way knowledge is created in interpretive research. Knowledge also arises out of the interaction between an object of study and an observer (Skrtic, 1990). Thus, the researcher is part of the research process, not outside of it.

Holistic. Interpretive research consists of holistic pattern theories. Knowledge is viewed as "circular" or "amoebalike" as opposed to being viewed as "hierarchic" and "pyramidlike" (Greene, 1990). As further explained by Greene, reality is social and multiple. Multiple reconstructions are pluralistic and divergent. Another way to look at the holistic

nature of knowledge is to consider that it consists of three layers: one, the reconstruction of inter-subjective meanings, two, the interpretive understanding of the meanings humans construct in a given context and, three, how these meanings interrelate to form a whole (Greene).

Consistent within. Interpretive research aims to be internally consistent and coherent by merging language to express the claims of participants (Howe, 1988). Internal consistency and coherence are sought.

Value-bound. Knowledge is also value-bound, insofar as it is locally and politically situated (Lincoln, 1990) and is infused with the values of those studied as well as the values of the researcher and readers.

Axiology: Role of Values

Interpretive research is considered value-laden (Greene, 1990; Lincoln, 1990). Greene noted that interpretivism is “permeated by the values and interests of the enquirer... Interpretivist knowledge inevitably reflects the values of the inquirer, even as it seeks to reconstruct others’ sense of meaning and supporting beliefs” (p. 238).

Interpretive research recognizes that research does not take place in a vacuum; it takes place in a context. This means that interpretive research is “conflictual, problematic and contested” (Lincoln, 1990, p. 83). The recognition of the values, not only of individuals but also of their context, acknowledges the impact of social structures on individuals and provides scope for its inclusion in interpretive research.

Lincoln and Guba (1985) found the infusion of values within interpretive research to be an opportunity to be exploited. According to Smith (1983), values are an integral part of the research process for qualitative researchers, from the selection of what is to be investigated, to how the investigation is to proceed, to the meaning of the terms encountered in the investigation. Qualitative research is considered meaningful because it goes “beyond the notion of neutrality or value freedom” (Smith, p. 11).

The acknowledgment and recognition of the role of the values of the researcher in interpretive research does not take away from the researcher’s responsibility to be true to the results from the field. Greene (1990) acknowledged this responsibility when she noted that the researcher should monitor and minimize the intrusion of inquirer biases into the inquiry process.

Issue of Trustworthiness

Qualitative research is not directed at unearthing a single truth. This is not to suggest that phenomena is only socially constructed (Hammersley, 2000). “Researchers do not simply constitute or construct phenomena; phenomena do have an existence independent of accounts of them, but it is important to recognize that, just as language is part of reality, and so too are the authors of accounts” (p. 160). Thus, researchers represent phenomena from one or another point of view.

Trustworthiness of the representation of phenomena relates to two aspects: the credibility and dependability of the research. Researchers’ representations must be defined within the context of the research and must be consistent with the evidence presented

(Hammersley, 2000). "The reader must be able to follow the thought processes that have led to the conclusions and to accept them as valid" (Polkinghorne, 1989, p.57).

Trustworthiness means asking first, whether a study is consistent within its methodological framework and, second, whether the findings are consistent with the results (Lincoln & Guba, 1985). Determining consistency within a methodological framework requires articulation of the data collection procedures employed by the researcher and the steps taken to move from an interview to a general description of the experience under investigation (Polkinghorne, 1989).

Readers can then follow the researcher's analytic process and thus understand how the transformed meanings and structural description have been arrived at. Although the documentation does not *prove* that the conclusions of the study are correct, they can allow the reader to check to see if the general description is indeed supported by and derived from the data. (Polkinghorne, p. 57)

To consider whether findings are consistent with the results requires determining whether the researcher's presentation is supported by the evidence. An argument is strong based on the consistency between the findings and the analysis of the findings (Polkinghorne, 1988). "The argument does not produce certainty; it produces likelihood. In this context, an argument is valid when it is strong and has the capacity to resist challenge or attack" (Polkinghorne, p. 175).

When subjecting knowledge claims to assessment on the basis of the criteria of plausibility and credibility, Hammersley (1990) notes that researchers generally apply a more sceptical lens than found in other domains. This requires considering various conclusions.

Given that there are judgements, there is always the potential for systematic error, but it is the responsibility of the researcher to take proper methodological precautions to avoid error, for example, by assessing the relative validity of alternative interpretations. (Hammersley, p.106)

Polkinghorne (1989, p. 57) suggests that researchers ask themselves the following questions to ensure that an accurate portrait of the research is provided:

1. Did the interviewer influence the contents of the subjects' descriptions in such a way that the descriptions do not truly reflect the subjects' actual experience?
2. Is the transcription accurate, and does it convey the meaning of the oral presentation in the interview?
3. In the analysis of the transcription were there conclusions other than those offered by the researcher that could have been derived? Has the researcher identified these alternatives and demonstrated why they are less probable than the one decided on?
4. Is it possible to go from the general structural description to the transcriptions and to account for the specific contents and connections in the original examples of the experience?
5. Is the structural description situation specific, or does it hold in general for the experience in other situations?

The plausibility and credibility of findings are enhanced when more than one research strategy yields consistent findings. Denizen (1989) has identified a variety of strategies: prolonged field engagement, persistent observation, peer debriefing, and triangulation. Triangulation means employing multiple methods of observation "because each method

reveals different aspects of empirical reality” (Denzin, 1989, p. 25). According to Jick (1979), the effectiveness of triangulation rests on the premise that the weaknesses in each single method will be compensated by the counter-balancing strengths of another.

Denzin (1978) identified four types of triangulation: by data sources (which can include persons, times, places, etc.), by method (observation, interview, document), by researcher (investigator A, investigator B, etc.), and by theory. To this, Miles has added a fifth type of triangulation and Huberman (1994), namely, type of research method, whether qualitative or quantitative.

Triangulation is not without some shortcomings, Jick (1979) noted. Among them is that multi-methods are of no use if the research is not clearly focused at the outset and explores the “wrong” questions. A major drawback is when different sources contradict each other. However, divergent findings are often an opportunity for the researcher to search deeper to understand what is happening. “Divergent results from multimethods can lead to an enriched explanation of the research problem” (Jick, p. 609).

My research endeavoured to meet the criteria of trustworthiness, in the first instance, by describing my methodological framework and method. By laying out a framework, the reader can assess if my method was sound and was implemented. My research design included triangulation by incorporating three opportunities for data collection, two of them being in interview settings and one of them being journal entries. Furthermore, I incorporated sharing transcripts from the first interview with participants and so provided them with an opportunity to affirm or negate the findings of the first interview. Consistent with qualitative research, additional research questions may be added in the field. That was the case with my research; I

have identified my changes in the discussion under research questions. Above all, my goal has been to produce an account consistent with my understanding of the experiences shared by students who are hard of hearing.

Significance and Transference

Qualitative research looks for two types of significance, one in terms of understanding what is meant by the research results and the other in terms of the overall significance of the study. The first type of significance involves understanding what is happening to the persons who are the participants in the research (McCutcheon, 1990).

The second form of significance requires consideration of the practical significance of the research results. According to McCutcheon (1990), this is illuminative significance and requires considering a study's "implications for operating on the world by contributing to and perhaps changing actions and thinking in education" (p. 282). She noted that one way we can think of illuminative significance is to consider the ability of our research to implant concepts, ways of viewing the world, and language into educators' thinking, literature, and actions. This is "the extent to which our research shapes our field's consciousness in its interpretations and the sort of questions raised, that is, its mark on education" (McCutcheon, p. 282).

McCutcheon (1990) explained that, although research results are unlikely to be neat and tidy, interpretations may be considered transferable to other settings, even when those situations are observably different. "Such interpretations then move into our thinking and help us frame our questions in our research" (p. 282). She noted that this conceptual movement is referred to as "knowledge creep," a term previously defined by Weiss (1980). Thus, while

interpretive research does not lend itself to generalizability, some categories or themes may emerge from data analyses which have implications for theory and practice (Creswell, 1994).

Greene (1990) noted that the issue of transferability requires a sufficient description of the particular context, so that it can be examined from another context. According to Greene, the concept of transferability:

shifts the inquirer's responsibility from one of demonstrating generalizability to one of providing sufficient description of the particular context studied so that others may adequately judge the applicability or fit of the inquiry findings to their own context. The locus of judgment about transferability thus also shifts from the inquirer to potential users. (p. 236)

Yin (1989) suggested that while a study cannot be exactly replicated, it might be undertaken in another setting if there is a detailed protocol for data collection. This also means the research protocol for the study must be clearly described.

Two issues arise out of the transferability discussion for my study. First, it will be crucial to determine what is significant among my findings. Second, it will be important to consider the illuminative significance of findings and how interpretations may contribute to knowledge creep in relation to our knowledge about students who are hard of hearing and also, possibly, in a more general sense, about university student issues. In this respect, transferability of findings might be considered. However, for this to happen, my research must be transparent and descriptions "thick," both in processes and reporting.

Methods Issues

Five issues related to research method were germane to this study: research strategy, scope of findings, nature of the data, language of the research, and defining the population for study. Each of these will be discussed in turn.

Research Strategy

Interpretive research is generally considered naturalistic and semi-structured. This means that the research is expected to be embedded in the field and to be conducted in natural conditions. As well, the research is not expected to be rigidly controlled. Nonetheless, structure is expected in terms of overall design but not within the design. For example, my research strategy was well-defined. As laid out in the introduction, there were three components to the study; each component had a specific purpose, a specified target audience, and a defined time frame for the conduct of the research. For both the initial and follow-up interviews, I developed a semi-structured interview guide of areas for discussion; however, within that framework I was flexible about exploring areas indicated by the respondent. Thus, my research was both structured and semi-structured.

Furthermore, consistent with the interpretive tradition, research questions were formulated to provide guidance to the study. Six questions were initially framed as follows:

1. What are the academic experiences of university students who are hard of hearing?
2. What are the social experiences of university students who are hard of hearing?

3. How does being hard of hearing impact on students' academic and social dimensions of university life?
4. To what extent, and in what way, do disability-related supports and issues impact on the experiences of students who are hard of hearing?
5. How do the experiences of students who are hard of hearing compare to those of other students?
6. To what extent do existing retention models encapsulate the experiences of students who are hard of hearing? Do existing retention models describe the experiences of these students? If not, in what ways are models insufficient and, hence require modification?

In keeping with qualitative research, whereby focus and questions may be revised throughout the research process, two research questions were added during the research phase. These questions were:

7. How do participants define themselves in terms of hearing loss?
8. What transition-to-university experiences do students who are hard of hearing face?

The questions were of two types; one type focused directly on the perspectives and experiences of students. This was the case for the majority of the questions. The other type of question drew from the responses to the other questions. This was the case for two of the questions, which dealt with comparisons to other students and the relevancy of retention models.

Scope of Findings

The scope of interpretive research is usually single cases or groups of small cases. The purpose is to promote the study of a small number of participants through extensive and prolonged engagement to develop patterns and relationships of meaning (Creswell, 1994). This approach was consistent with my own, whereby I planned to interview 8 to 15 students who are hard of hearing. I ended up with 14 participants.

Interpretive research does not claim to be generalizable because it acknowledges that it is context-bound and time-specific; it is a snapshot at a moment in time, in a given place, with certain players and cannot be said to transfer to other situations, all of which vary in terms of the players, the context, and the time. However, as discussed previously under transferability, interpretive research adds to the body of knowledge about a given topic that goes beyond the individual person and his or her situation.

Nature of the Data

Interpretive research yields rich, full, and often complex text. Data are analyzed by an inductive process that is suitable for identifying multiple realities in the data. The search for patterns in data is an on-going one in the research process and requires researchers to be wary of either buying into folk explanations or rejecting them without considering their merit (Bernard, 1994).

Language of the Research

Greene (1990) noted that interpretivists are storytellers versus being social engineers (postpositivists) or critical theorists (social activists). Telling stories means an emphasis on descriptions; however, as discussed previously, this does not mean that interpretive researchers simply tell stories or serve as a vehicle for the voice of others. They interpret what it is stated and provide their own perspective while remaining true to the voices of others and findings from the field. Traditional forms of describing and using language are not fully adequate for the task (Lincoln, 1990).

Population

Defining Participants

My population for the study was students who are hard of hearing. As discussed in the literature review, there are empirical, functional, and socio-cultural ways of defining whether someone is hard of hearing. My approach was to invite students who are hard of hearing from the universities involved in this study to volunteer as participants. I simply used the term "hard of hearing" on posters and invitational letters and accepted all who responded to that designation. In essence, I used a socio-cultural approach²³ to the issue of definition of hard of hearing because I accepted students' self-definitions. I did request copies of their audiograms, but this was after they had been selected and it was for reporting purposes, not for participant selection.

²³ As discussed in the literature review, a socio-cultural approach to defining hearing loss accepts an individual's determination as opposed to defining hearing loss based on a person's level of hearing.

Recruitment of Participants

My goal was to interview 8 to 15 university students who are hard of hearing. Recruitment of participants was primarily through co-ordinators of Disability Service Offices at three universities. A batch of contact letters (See Appendix C) in stamped envelopes for distribution was provided to co-ordinators to mail to students. Each envelope also contained a stamped return envelope addressed to me.

At one institution the co-ordinator also e-mailed students to inform them about the study. Another co-ordinator chose to wait until students arrived at her office rather than mail out the letters; as a result, information was not distributed unless the student happened to come by the office. I did not learn about this until the recruitment process was near its end. At that institution only two students responded to the call for participation and it is suspected that the method of distribution played some part in the modest response. A third co-ordinator assumed that the study was restricted to only those students who had significant hearing losses; once I clarified that there was no such restriction and that students with any level of hearing loss could participate, more students were contacted. Another student came forward to participate in the study from that institution.

Notices about the study were sent to community agencies or associations such as the Western Institute for the Deaf and Hard of Hearing, the Canadian Hard of Hearing Association, the Audiology Clinic of the Vancouver/Richmond Health Board, and the B.C. Association of Educators of the Deaf and Hard of Hearing. In addition, one university's campus publication published a notice inviting participants for the study.

As an enticement for participation in the study, participants were offered, and given, a \$15 gift certificate to a university bookstore for completion of each phase of the study: interview, journal entry, and the second interview. Total possible amount of the remuneration per student was \$45. Whether this contributed to a high rate of retention in the study is unknown, but all participants took part in two interviews and most completed a journal entry.

Selection of Participants

Fourteen students volunteered to take part in the study during the recruitment period and all were selected to participate in the study. With one exception, all of these students who participated in the study responded as a result of communication received from the researcher via the DSOs at the participating universities. The exception was a student who was informed of the study by a community agency.

Another two students also volunteered, but not until the timeline for the call for participants had expired. Unknown to the researcher, a campus paper ran a notice about the research project long after the date for which participants were sought.

In embarking on the study I had been concerned that by using self-definition for inclusion in the study that I might hear from Deaf students rather than from students who are hard of hearing. However, I need not have worried. Only students who used oral communication responded to the call for participants. This demonstrates that students exercise a form of self-selection, or possibly DSO co-ordinators were precise in disseminating materials.

Research Method Aspects

Study Components

As outlined in the introduction to this chapter, my study consisted of three components involving students who are hard of hearing: an initial interview, a follow-up interview, and journal entries. The initial interview with participants focused on their experiences being hard of hearing and, at the same time, university students. Six areas were covered in the interview guide: 1) general university experience, 2) academic experience, 3) social experience, 4) disability-related supports and services, 5) family connection, and 6) nature of a hearing loss, identity, and demographic issues. Once the interviews were underway, it became apparent that a seventh area merited identification, namely, transition issues.

The second interview consisted of two parts. Participants were provided with transcripts of the first interview and were asked for their comments and changes. Then they were asked to discuss changes in four areas since the first interview: 1) academic university experience, 2) social university experience, 3) and disability-related supports and services, and 4) hearing loss issues.

For both interviews interview guides (See Appendix E & F) were used, but only as a guide, so that the flow of the conversation followed the individual's direction. This semi-structured format was in keeping with interpretive approaches to interviewing. A pilot of the first interview guide was conducted before going out to the field; as a result of the pilot the interview guide was refined.

Besides taking part in interviews, study participants were asked to write a journal entry twice a week over a three-week period in the fall, 1999. The journal was a means for them to record their thoughts while they were fresh. In order to encourage participation, a format for responses was designed that was limited to only two questions to avoid over-taxing respondents. These two questions were: (1) Please note a positive experience you had this week at university and how you felt about it, and (2) Please note a negative experience you had this week at university and how you felt about it. (See Appendix G for the journal guide given to students.)

Interviews

The first series of interviews with students was conducted in November and December of 1999. One person who joined the study late had her first interview in January; she heard about the study later than other students did. The second round of interviews commenced in February of 2000 and continued until April of that year. Students completed journal entries during a three-week period anywhere from November 1999 to April 2000.

Most interviews with students were set up by e-mail. Students' e-mail addresses had been requested on their agreement form. Students informed me of their willingness to participate either by mailing back to me a signed release or by contacting me by e-mail. In the latter case the signed release was completed at the first interview.

At the outset of each interview, students were assured of anonymity. Interviews were conducted one-on-one in a private room, with three exceptions. In one case the student selected a quiet corner of the cafeteria. In another case, the student's first interview was in a

restaurant booth in her hometown. Her second interview was in her study space, which was also occupied by another student; the participant advised that she was comfortable with this arrangement because the other person, being deaf, would not hear the conversation.

First interviews varied in length from one to two hours, usually depending on the extent of the student's replies or the time the student had available. The second interviews varied from 45 minutes to an hour and a half, again depending on the situation.

Communication with participants was not found to be problematic during the interviews. None of the students requested an accommodation, whether an assistive listening device, an interpreter, or other form of assistance. This was not surprising because one-to-one communication is less difficult for persons with hearing losses than group communication.²⁴ Furthermore, the nature of the interview was such that respondents could ask for questions to be repeated. In fact, there were few instances of this; any repetition was usually more for clarity of a question than for not hearing it. Sometimes, I did not hear participants' replies, due to my hearing loss; however, this did not happen often, and participants readily complied with a request to repeat a response.

All interviews were taped and then transcribed. The first transcription was given back to participants prior to the second interview for any changes to the transcript and further comment on any aspect of the interview. Only one participant requested changes; her interview had been conducted in a restaurant and the quality of the tape was affected by the background noise.

Eleven students completed journal entries and three did not. Of these, one person was

²⁴ In the literature review, students' difficulties with communicating in groups were discussed.

still a student because of her thesis work but was no longer taking classes. In the other two cases, one student did not understand the nature of the request but still did not submit an entry when the nature of the journal entry was clarified. The other student did not offer any explanation. Students were not contacted more than once for the journal entries to avoid any sense on their part that they were being pressured.

Data Management

An interpretive approach to data management requires an explication of the approach. An inductive process is used for data analysis and writing, which involves comparing incidents applicable to categories, integrating categories and their properties, delimiting and writing the theory (Denzin, 1994). The process is a complex, reflective one and ultimately "interpretation is an art that cannot be formalized" (Denzin, p.512).

My approach to data analysis was to begin with reading transcriptions and journal entries to absorb the material, and then to identify patterns and themes. A key word index of themes was generated. For example, under service delivery words such as notetaking, tutoring, and exams were identified. Each transcript was searched by computer using the "find" function for key words. All relevant sections that matched a particular key word or reasonable facsimile were copied onto a document coded with a particular theme. In some instances, several different key words were used to come up with the same information. For example, words such as professors, profs, instructors and teachers were all searched for the subject of instructor relationships. Journal entries were re-read and relevant portions were

added to the summary documents. Transcripts were re-read to ensure that information relating to a theme had been captured.

Data were organized into summary documents according to themes. In some cases the same data were duplicated on several themes because components of the data were relevant to the theme or the context of the data were important to retain.

The data were reviewed and analyzed for common themes and patterns. Following writing up results, data were rechecked to determine if alternate explanations were possible. All transcripts and journal entries were reread to ensure that the writing of the results reflected the totality of the students' shared meanings.

Limitations of the Study

Most research has limitations, and this study was no exception. The five limitations of this research relate to sample size, geographic scope, institutional scope, the scope of the literature, and the interview flow of questions.

Sample Size

The sample size, although robust for a qualitative study, was limited to 14 persons. Because hearing losses vary considerably, as do individual experiences, it would be desirable to learn of the experiences of other students. However, a researcher must always come to a point of deciding when a study has a sufficient number of persons for its research purpose in order to conduct the study in a reasonable timeframe and with finite resources. Furthermore, there is a point of saturation whereby sufficient understanding is generated on the themes

under study with the number of participants involved in the research project. Creswell (1998) refers to this as reaching the point where “I[as the researcher] no longer find new information that adds to my understanding of the category” (p. 242).

Geographical Scope

Just as there are limits in the number of participants involved in any study, so too there are geographical boundaries. In the case of my study, the context was the province of British Columbia and within the province, three urban universities.

Institutional Scope

This study focused on students attending universities, rather than colleges, for consistency of institutional type. Thus, the findings are related to universities. This does not mean that major themes do not have significance for other post-secondary institutions but a limitation is that the study could not encompass students from other post-secondary backgrounds. In keeping with interpretive research, the findings are applicable to the participants and context of this study.

Literature Scope

Much of the literature in the retention field is from another country and, most often, the literature was from the United States. One cannot assume that universities in Canada and the United States are similar in all respects, even though there are similarities in some respects, such as sharing a similar Judeo-Christian heritage and Western democratic

foundations. There are some Canadian studies in higher education and these were drawn upon extensively while, at the same time, the literature elsewhere was also referenced.

Flow of Questions

An interview guide was developed; however, the intent of the interviews was to follow the flow of the participants' comments. This approach was appropriate given the method employed in the study, but also made it more challenging for the interviewer to ensure sufficient coverage of all questions in the interview guide. It also meant that the same question was not necessarily asked in the same way in each interview. Again, this is consistent with the methodological design, but it may also be perceived as a limitation if there is a sense that a particular flow and interview approach would have made a difference to a respondent's answer. Conducting a second interview helped to mitigate the impact of this limitation.

Profiles

In this section a series of profiles are presented, first of the institutions attended by the study participants, followed by a profile of the students and, finally, of the researcher. The three universities in the province of British Columbia, Canada, which consented to the research study, are referred to by pseudonyms. Students were also given pseudonyms to preserve confidentiality.

*Institutions²⁵**University X*

The population of this urban-based university is 22,525 under-graduate and 2,971 graduate students (all figures are for 2001-02). The university has 681 faculty members and 2,971 staff. Its buildings take up 2,276,197 square meters and the university occupies 174 hectares. The operating budget of University X is \$201 Million. Five faculties are identified including Applied Sciences, Arts, Business Administration, Education, and Sciences. As well, there are more than 30 institutes and extensive Continuing Studies and Co-operative Education programs. There are 1,125 residence units available on campus. The Disability Service Office is part of student services and an estimated 300 students with disabilities seek its services annually. University X describes itself as being a comprehensive university; it is located in a population base of two million people, half of the province's entire population.

University Y

This university is also located in a population base of two million persons and has 28,893 undergraduate students and 6,489 graduate students (2000-01). As well, it lists 5,686 distance education students. About one-quarter of its students are housed on campus in one of 9,000 residence spaces. Full-time staff number 1,740 and full-time faculty, 7,339.

²⁵ The source of most of the institutional information was the quick facts guides available from the universities' websites. The information is not the same for each institution because they used different budget years and descriptors. Information about DSOs was supplemented by written information or information obtained from DSO Co-ordinators directly.

University Y describes itself as a research-intensive university. It has 12 faculties encompassing virtually all study disciplines; it is the only university in the province with a Faculty of Medicine. The annual operating budget is \$870 Million and university buildings occupy over 1 million square meters. The university is spread over 402 hectares and maintains an additional 172 hectares. The DSO has approximately 500 students registered as having a disability. The DSO is located within Student Development and Services.

University Z

The student population at University Z is 13,145 full-time students. The overall total is 18,036 students, of which 2,305 are graduate students and, of these, two-thirds are full-time students (as of Nov. 1, 2002). The University is located in a community of 75,000 people but draws from a larger population base. It has 1,576 housing units plus 181 units in a family/student-housing complex. The population of students with disabilities served by the DSO is 350 students. The DSO is a unit within Student Services. The faculty complement of the university is 628 regular continuing faculty, 441 sessional instructors, and 670 specialist/instructional staff. In addition, there are 1,555 other staff members. Total revenue for 2001-02 was \$282 million (expenditures were not cited). University Z describes itself as a comprehensive university and lists 10 faculties: business, education, engineering, fine arts, graduate studies, human and social development, humanities, law, science, and social sciences.

Participants

A brief profile of each of the 14 students is presented, which will be followed by a summary of demographic aspects of all of the students. The order of the presentation of the students relates to the order in which they were first interviewed.

Charlie is a 49-year-old graduate student with a severe-to-profound hearing loss, which occurred gradually. He wears hearing aids in both ears and uses an FM system. He completed an undergraduate social work program at another university and is now pursuing graduate studies in educational counselling. He hopes to become a counsellor. Charlie is First Nations and maintains regular contact with his band on the reserve. He is single and is involved with a campus religious support group.

Kathy is 27 years old and only recently began to lose some of her hearing. She has a mild hearing loss and is going through an emotional and physical adjustment to the change in her life. She does not wear a hearing aid but does use an FM system with a headphone. After teaching for several years, she enrolled in the Masters program for teachers of students who are deaf and hard of hearing. She is single and has a boyfriend. She plans to return to teaching after getting her degree.

Mark is a 21-year-old Commerce student who is in his fourth and final year of his program. His career aspiration is to become a human resources officer and he hopes to pursue a Masters degree. Mark has a moderate-to-severe hearing loss in his right ear and a severe-to-profound hearing loss in his left ear. His hearing loss was detected at age three. He wears hearing aids in both ears. Mark is single and is active in campus clubs and sports.

Yvonne, 22, is in her fourth year of Arts at university with two or three more years to go because she is taking three, rather than five, classes per semester and is still deciding what her major will be. She has a profound hearing loss, which was first detected at age one-and-a-half. She believes that her hearing loss was a result of medication she received for an illness. She wears hearing aids in both ears. She works on campus and lives in residence. She is single. She has not decided on a future career but has an interest in writing.

Carol, 18, is in the first year of a Bachelor of Arts program. Her hearing loss is moderately severe in one ear and moderately profound in the other ear. She hears high frequencies better than low frequencies. Carol's hearing loss was uncovered in elementary school but she believes she had it earlier. At two years of age, she had a severe reaction to medication given for an ear infection. She wears hearing aids in both ears and uses an FM system. She also has a condition whereby she pulls out her hair. She plays rugby and is single. She would like to be involved in humanitarian or relief work.

James, 18, is in his first-year of university and came to university with a 92% average in high school. He is in the Bachelor of Science Honours program, but, in his second semester, was thinking of switching to Arts. He has a moderate-to-severe hearing loss and wears hearing aids in both ears. He also uses an FM system. Hearing loss is hereditary in his family; his father and brother are also hard of hearing. James was born with his hearing loss. He is single and lives on campus; he is involved in sports and clubs. He is undecided about his future career.

Sarah, 36, is in her last year of a Masters program to become a teacher of students who are deaf and hard of hearing. She worked after high school, and entered a community college

at 27 years of age. She went on to university for her undergraduate degree and attended a different university for a particular graduate program. She has a moderate-to-severe hearing loss from birth and wears hearing aids in both ears. In her late teens she began to lose her eyesight and is now legally blind. She is single and owns her own apartment.

Gayle, 23, is in her fourth year of Arts at university but because of a change in institutions she is in her first year in a new institution. Single, she lives at home but finds it stressful because her father is an alcoholic. She wears two in-the-ear hearing aids for her moderately severe hearing loss. She has used an FM system in the past but no longer does so. She hopes to go on to graduate school, possibly in environmental studies. Her career aspirations are related to environmental studies. She has been hard of hearing from birth.

Darcy, in his mid-30s, is in his fourth year, having spent two years at college before coming to university. After getting a Bachelor of Arts degree, he hopes to get a Masters degree and possibly become a college instructor. He turned to university after an accident left him unable to continue physical work; he had been a janitor. From an early age, he has had no hearing in his left ear and a severe hearing loss in his right ear, for which he wears a hearing aid. It helps him with speech-reading by giving him sound cues but not full speech comprehension; he does not use an FM system. He is married with two children.

Rachel, single and 28, lives at home while she is completing a Bachelor of Social Work degree. She has worked as a government financial aid officer and would like to be a social worker. She thinks she always had a substantial hearing loss but it was not recognized until she was 16 years old. Her hearing loss is severe-to-profound. Only recently did she get a hearing aid. She has not been acquainted with assistive listening devices. She attended a

college before going to university; after a year on campus, she is now taking all of her classes by distance education.

Ben, 28 years old, worked after high school, and then went to a community college for a year and a half. He transferred credits to university and is now in his third year of science studies. He defines his hearing loss as being moderate and he wears hearing aids in both ears. He was in Grade 5 or 6 when he became hard of hearing. He tried an FM system in grade school, but did not like it. His mother is also hard of hearing. Ben is single and plans to work in the geological field; he may pursue graduate studies, depending on the job market.

At 58 years of age, Heather is the oldest student who took part in the study. She became hard of hearing in her early 20s after her language skills and speech had developed. Now she has a severe-to-profound bilateral sensorineural hearing loss and has hearing aids but mostly relies on speech reading. She has not tried an ALD system. She started taking courses two years ago as part of a continuing education diploma in a humanities program and has enjoyed it so much that she plans to get an Arts degree. Married with grown children, she finances her education by boarding international students.

Jennifer, 40, returned to university after teaching for numerous years to get a Master's degree in a specialized program for teachers of students who are deaf and hard of hearing. She lives on campus and has retained her home in her original residence, which her fiancée maintains. Frequently, he visits her. Her hearing loss is hereditary; her father also is hard of hearing. From birth she has had a moderate-to-severe loss in both ears. She had one hearing aid until her 20s when she acquired a second one. Now, she also uses an FM system. She plans to return to teaching after graduation.

Ann, 24, is in the elementary program for a Bachelor of Education degree. She is in her sixth year of studies because of taking partial loads to get a four-year degree. She grew up in a family where Italian and English were both spoken because her Italian-born parents were immigrants to Canada. Her father is hard of hearing and she was born with a hearing loss but she only recently got a hearing aid for her moderate-to-severe hearing loss. She plays on a university athletic team. She plans to be a teacher.

Overall Participant Profile

An overall profile of these students shows that they range in ages from 18 to 58 years, with six persons being under 24 years. The students attended one of three universities in the province of British Columbia, Canada as follows:

University X (n=2)

University Y (n=7)

University Z (n=5)

Table 2, on the next page, provides an individual participant profile of salient demographic information. Subsequent tables aggregate information.

Table 2

Individual Participant Profiles

Name	Age	University	Faculty	Status
Charlie	49	Y	Education	Undergrad
Kathy	27	Y	Education	Graduate
Mark	21	Y	Commerce	Undergrad
Yvonne	22	X	Arts	Undergrad
Carol	18	X	Arts	Undergrad
James	18	Y	Science	Undergrad
Sarah	36	Y	Education	Graduate
Gayle	23	Y	Arts	Undergrad
Darcy	30s	Z	Arts	Undergrad
Rachel	28	Z	Social Work	Undergrad
Ben	28	Z	Science	Undergrad
Heather	58	Z	Arts	Undergrad
Jennifer	40	Y	Education	Graduate
Ann	24	Z	Education	Undergrad

Table 3 shows some overall demographic information about the participants. Nine were female and five male. Most of the students were single, with only two being married and one student cohabitating with her fiancée. Three students came from small rural communities, while the others were urban dwellers.

Table 3
Overall Demographic Profiles of Participants

Gender	No.
Male	5
Female	9
Age Range	
18-24 yrs.	6
25 yrs. – 40 yrs.	6
41 yrs. +	2
Geographic Profile	
Urban	11
Rural	3
Marital Status	
Single	11
Married or Common-law	3
Father's Occupational Background	
Middle Class	11
Working Class	3
First Language	
English	10
Other	4

English was the first language for 10 of the participants; other students learned either another language or were bilingual. Other languages learned were Sikh, French, Italian, or a native Indian language.

The academic profiles of the students (see Tables 4 and 5) shows variations. Eleven students were in undergraduate studies, two of whom had just started and four of whom were

about to finish. All three graduate students were enrolled in a program to educate them to become teachers of students who are deaf and hard of hearing; they were working toward a Masters degree. Altogether, five students were in Education and five were in Arts. Other students were in Science, Social Work, and Commerce.

Table 4

Academic Profiles: Program Status

Program Status	No.
Undergraduate	11
Graduate	3
Total	14

Table 5

Academic Profiles: Program Specialty

Program Specialty	No.
Education	5
Arts	5
Science	2
Commerce	1
Social Work	1
Total	14

The audiology profile of the students participating in the study shows a wide range. As shown in Tables 6 and 7, the profile of these students reflects a range from mild (n=1) to profound (n=1) with considerable variations among them.²⁶ The largest cluster was the moderate-to-severe loss category, numbering five students. Four persons had a severe-to-profound hearing loss. None of the students had undergone a procedure to get a cochlear implant.²⁷ (More detail on audiology terms was included in the literature review; Appendix A provides more detail on terminology.)

The hearing variations of the students reflect the wide differences that can be found in persons with hearing losses. These variations are all that much greater because an individual person can have one level of hearing loss in one ear and another level in the other ear. Even in one ear, the type of loss can vary. One student had an unusual loss in one ear that went from being a moderate loss to being a profound one, depending on the frequency. Most students had more losses in the higher frequencies that affect human communication than in the lower frequencies. Even in the case where two students shared the same category it did not mean that they heard similarly because there may be differences in frequencies heard, ability to comprehend words, and adaptation strategies.

²⁶ In one case the student reported a profound hearing loss but her audiologist report indicated a severe-to-profound hearing loss. She was placed in the latter category for this study.

²⁷ As discussed in the literature review, a cochlear implant is a medical procedure whereby an electronic sound processor is implanted behind a person's ear, providing some access to speech and sound.

Overall, the profile shows that the level of hearing loss of most of the students was substantial and, without additional strategies or support, the students would have difficulty hearing in many verbal situations.

Table 6

Degree of Hearing Loss in Both Ears

Name	Hearing Loss Left Ear	Hearing Loss Right Ear
Charlie	Severe-to-profound	Severe-to-profound
Kathy	Mild	Mild
Mark	Severe-to-profound	Moderate-to-severe
Yvonne	Profound	Profound
Carol	Moderate-to-severe	Moderate-to-profound
James	Moderate-to-severe	Moderate-to-severe
Sarah	Severe	Moderate
Gayle	Moderate-to-severe	Moderate-to-severe
Darcy	Profound	Severe
Rachel	Severe-to-profound	Severe-to-profound
Ben	Moderate	Moderate
Heather	Severe-to-profound	Severe-to-profound
Jennifer	Moderate-to-severe	Moderate-to-severe
Ann	Moderate-to-severe	Moderate-to-severe

Table 7

Overall Degree of Hearing Loss

Degree of Hearing Loss	No.
Mild	1
Moderate	1
Moderate-to-severe	5
Moderate-to-severe and severe-to-profound	1
Moderate-to-severe and Moderate-to-profound	1
Severe-to-profound	4
Profound	1
Total	14

Profile of the Researcher

I was born with a hearing loss, which is moderate-to-severe at 70 to 75 decibels in each ear. Without hearing aids, I am unable to hear three feet away and, even then, I need to have visual contact to supplement hearing with speechreading.

My hearing loss went undetected until age five; the family doctor advised against hearing aids because of the dependency that they would be sure to cause! I attended regular schools and, as a result of an annual health checkup where I failed the hearing test, I was recommended for further audiologic testing. Thus, at age 12, I received my first hearing aid,

one for my right ear, although both ears are equally affected. I relied on lipreading to augment heard sounds and communicated orally and continued to do so throughout my life.

I went to university directly from high school and during my four years I received no disability-related accommodations, whether notetaking, technical equipment, or tutoring. I was unable to hear the instructor in many of my classes and had difficulty hearing other students in virtually all of them. However, because I was an independent learner and classes were small, except in first year, I managed to do well academically. I took part in swimming and figure skating and wrote for the campus newspaper, being editor of it during one summer. I also had an active social network.

I graduated with an Honours BA in 1970. I returned to university as a part-time student while in the workforce. I received an M.A. degree in 1983 and an M.Ed. in 1990, both at the University of Regina. In 1996 I entered into a doctoral program as a full-time student at the University of British Columbia.

Before taking my first full-time job, I acquired a second hearing aid and a few years later, an FM system. Now I sometimes use captioning in extremely difficult listening situations.

I am active with the Canadian Hard of Hearing Association and the International Federation of Hard of Hearing People, as well as being on the board of the B.C. Family Hearing Resource Centre. I am also active with work-related disability service provider organizations including the Association of Higher Education and Disability and the Canadian Association of Disability Service Providers. I am also involved with non-hearing related organizations, including the National Women's Reference Group on Labour Market Issues. I

have friends who are hard of hearing, deafened and Deaf, and I have a brother who is Deaf, also from birth, who communicates mainly by sign language.

Since 1991, I have been employed with the Disability Resource Centre at the University of British Columbia and work with students with disabilities and the campus community in facilitating academic, social, and institutional accommodations. I took leave from work during a significant portion of my studies. At the time that I was engaged in field research, I did not know any of the students prior to interviewing them and had no direct service delivery role with them. Subsequent to completion of the interviews and my return to work in 2001, three of the students became my clients but that is no longer the case; all three successfully graduated from university.

Summary

This chapter has outlined the research design for my study. I have chosen an interpretive approach as the methodological framework for studying the post-secondary experiences of students who are hard of hearing. Interpretive research is part of the qualitative tradition which enables one to gain a rich and deep “understanding of participants’ lived experience of the phenomena” (Marshall & Rossman, 1999, p. 60). This approach allows for emphasizing the stories of the persons being interviewed, and my role as the researcher was to, not simply be a conduit for the stories, but, rather, to analyze them in order to convey their essence (Greene, 1990).

The research design outlined in this chapter described three components: initial and follow-up interviews and journal entries with 14 self-identified students who are hard of

hearing attending one of three universities in the province of British Columbia. The eight research questions which guided the study were elucidated.

The fourteen participants in the study were introduced, and, as a group, two-thirds are female and a third, male; 43% were between 18-24 years, considered the traditional student group, and the rest, non-traditional students, depending on the definition used. Most students were single with 20% being married or in common-law relationships. English was the first language for 71%, and 79% had fathers with a middle class occupation; 21% had fathers with a working class occupation. Eighty percent of the students were undergraduates, with Education and Arts being the predominant areas of study.

In terms of audiological profile, the range was considerable, from one person having a mild loss to one person being profoundly hearing impaired in both ears. Five students were moderately-to-severely impaired; four persons had severe-to-profound hearing losses; one person was moderately impaired, and the rest were a combination of several categories. Yet, despite the variations in hearing loss, these students identified themselves as being hard of hearing when the call to participate in this research study was issued. In the next chapter the first issue to be explored in this study is how they define their hearing status.

CHAPTER FOUR

IDENTITY AND TRANSITIONAL ISSUES

Students come to university with their background characteristics and transition experiences. Tinto's retention model (1987) incorporates these aspects as being significant in influencing the motivation and commitment of individuals to continue studies. Students' background characteristics are central to who they are as individuals and influence their perceptions and expectations.

For this study, two research questions were framed to explore identity and transition issues. The first question focused on the nature of students' identities in relation to their hearing losses. The second question dealt with students' transition experiences into university. In the first section of the chapter, findings about the identity perceptions of students in relation to their hearing losses are presented. In the second section of the chapter, transition issues are discussed, including factors influencing post-secondary educational choices.

Identity and Hearing Status

All of the interviewees, by virtue of participating in this study, recognized that they have hearing losses. The call requesting participants for the study invited responses from students who are hard of hearing. The students' voluntary participation in the study meant that they identified in some way with the hard of hearing label. There are various labels that may be used, and Table 8 provides a summary of terms used most frequently by the participants of this study to describe their hearing losses.

Table 8

Students' Definitions of their Hearing Status

Label ^a	No. of Responses
hard of hearing	13
Deaf	0
deaf	3
oral deaf	0
deafened	0
hearing impaired	1
hearing loss	2

^a respondents could refer to more than one label

In arriving at the hard of hearing designation, most students compared themselves to persons who are hearing and who are deaf. This finding is consistent with that by Israelite et al. (2002), who found that persons who are hard of hearing conduct dual comparisons, viewing themselves as being similar and dissimilar to persons who hear and persons who are deaf.

Communication was one of the areas of comparisons identified by students in my study. The participants stated that they were similar to hearing people in using verbal means of communication, and, at the same time, they considered themselves different from hearing people because of their difficulties with hearing and rarely with speaking. As Yvonne explained, *"People who are hard of hearing share a common process of acquiring speech in*

terms of having the same kind of difficulties or similar difficulties in communicating and understanding what other people are saying."

Some students compared themselves in functional terms. Ann said *"I can't hear in full capacity as everybody else"* and she referred to her hearing as being *"damaged."* For Mark, a lack of hearing was also a functional matter.

Mark: As a result of my hearing loss I may not be able to hear everything in a conversation, what others will hear and what it means. I have the inability to understand or hear what is being said in all situations.

Students compared themselves to Deaf persons, citing differences in communication and community affiliation. Whereas they saw themselves as being similar to hearing people, they saw themselves as being very different from Deaf persons because they are not fluent users of sign language and are not part of Deaf culture. Kathy put it this way: *"I am very much in the hearing world. The Deaf community is a political concept as well. I will never be part of the Deaf community because I am not Deaf."*

Charlie also noted being apart from the Deaf, and also from affiliating with hearing persons. *"I am not part of Deaf culture and hearing culture."* His view of being neither part of the Deaf or hearing worlds is similar to other depictions in the research (Israelite, 1993; Lutes, 1987; Warick, 1994b). Consequently, persons who are hard of hearing feel that they are in a "no-man's land" (Israelite).

Several students distinguished between themselves and persons who are deaf in relation to level of hearing. In this respect, they were viewing those who are deaf²⁸ in functional rather than cultural terms. They viewed themselves as having some hearing, whereas they viewed persons who are deaf as having none. Ann defined anyone with a profound hearing loss as being deaf, assuming that this was substantially different from those with mild to severe hearing losses.

Use of hearing aids was one way some persons distinguished between persons who are hard of hearing and those who are deaf. Charlie stated that for persons who are deaf *"wearing hearing aids doesn't make any difference. You hear very little. Hard of hearing - you need hearing aids for assistance."*

Choice of label is very much sociocultural and can sometimes be situational. Heather, whose audiogram shows that she has a severe-to-profound hearing loss, responded to the call for hard of hearing participants yet she identified herself as being "beyond hard of hearing. I am profoundly deaf." However, she does not feel herself to be part of deaf culture. "I am just a person who can't hear." She had hearing until her early mid-adulthood and so has always functioned in hearing contexts.

Two other students, one with profound hearing losses in both ears and the other with a profound loss in one ear and a severe loss in the other ear, had mixed identities. Yvonne, who has a profound loss in both ears, defined herself as being hard of hearing when she is with hearing people but stated that she might define herself as being deaf when she is with other

²⁸ The lower-case for the "d" in deaf is used when talking about a person who is considered deaf because of level of hearing loss. Deaf, with the "D" capitalized, is used for designating a person who is part of the cultural group of Deaf persons. A fuller discussion of these issues is in the literature review.

persons who are deaf. Her definition was situational, depending on the people with whom she associated and the purpose of the identity label. Darcy, who has a profound loss in one ear and a severe loss in another ear, also defined himself with two labels: hearing impaired and sometimes as deaf, again depending on the circumstances: *"I have always considered [myself] hearing impaired. As well, I use the term 'deaf.' Out of respect for real deaf I don't use it around people who might not make a distinction."*

Students were asked about their identity in an open-ended way: What do you consider yourself in terms of identity? However, occasionally students were asked if they defined themselves as hard of hearing, deaf or hearing impaired. The term deafened did not come up in either the students' responses or the interviewer's questions. The lack of use of this terminology is not expected to have influenced responses significantly although the term might be considered applicable to Heather who lost her hearing in adulthood and, to a lesser extent, to Charlie who experienced a continual gradual decline in his hearing.

Some students raised concerns with the use of labels, finding them to be depersonalizing and, in this context, they didn't really like the hard of hearing label. Other students did not like the use of a specific label because of connotations attributed to it. For Mark, the hard of hearing term had connotations of difficulties, which he did not feel that he had experienced.

Mark: I prefer to say I have a hearing loss because to me 'hearing loss' focuses on hearing loss whereas 'hard of hearing' implies there's difficulties in other areas as well. It's not that I have a problem with other aspects of my life. I have a hearing loss.

Nor did Darcy like the hard of hearing terminology. He believed it blames the person for having a hearing loss.

Darcy: I don't like that term that much anymore. It [having a hearing loss] doesn't really bother me. It almost implies that it's my fault. Hard of hearing is hard for me to hear. If I could try a little harder I could be better at it. But it's not something I dwell on. I am not too worried about [using] the politically correct term.

A couple of students stated that they disliked labels because they wanted to be considered a person first and as having a disability, second. As well, the sentiment was expressed that too much was made of using certain terms as opposed to using other ones.

Sarah: I just want to identify myself as a person. When I first came to this master's program I told people I was hearing impaired. Now I've been told, "That's horrible; you shouldn't be using that term." Whatever. I can't hear you very well. It's too political. My attitude is like 'Get on with your life'.

Neither does Yvonne like to define herself by her hearing loss.

Yvonne: I don't define myself by my disability and I never really have. People ask me what on earth they are supposed to call me. I have professors saying, "Do you prefer being called deaf or what?" And, I say, "I couldn't care less."

The eschewing of labels could be part of trying to be normal and avoiding any marginalization in status that being hard of hearing may bring. Dahl (1995) has referred to strategies such as withdrawal and avoidance that are used by persons who are hard of hearing and deafened to resist negative social reactions to a hearing loss. Avoidance of labels is part of

an attempt “to reduce the effects of othering by emphasizing the similarities between themselves and the dominant group” (Israelite et al., 2002, p. 135).

Some persons, however, wanted others to understand their identity and the distinctions between those who are hard of hearing, hearing, and deaf. Jennifer noted: *“When people say I am a hearing person, I always correct them and say, ‘I am hard of hearing,’ and when people say ‘She is deaf,’ I always correct them and say, ‘I am hard of hearing.’ ”*

Sarah noted that there are significant differences among those who are hard of hearing and persons who are deaf, and that there is a need for public education for people to understand this aspect. Her approach was to view hearing loss on a continuum with enormous differences among individuals within it. Sarah stated, *“There will have to be educating of people who are not hard of hearing to realize that there are different degrees of hearing loss. They are not going to meet someone with the same kind of hearing loss.”*

The identity of being hard of hearing was one that took time for some students to adopt. Now 40, Jennifer used to refer to herself as hearing.

Jennifer: I always said I was hearing when I was growing up. I faked it, but when I finally came out with it in my 30s, to me deaf was you can't hear anything. I can hear things. To me hearing is you hear everything and I knew I didn't hear everything, so it seems that's where I fit.

Although few students cited speech difficulties as a distinguishing feature of being hard of hearing or an aspect that would make them part of a hard of hearing community, a couple of students noted that they had had to work on their speech when growing up. For example, Mark received speech therapy while in grade and high school.

Mark: It's [speech] one of those things that is really a barrier to me. It's got better over the years. It varies with my stress level. If my stress level is high my speech quality decreases. If I am calm and relaxed my speech level goes up.

Even though Mark cited difficulties with speech, he did not refer to this as part of his identity. Israelite et al. (2002) also found few students defined themselves as hard of hearing in relation to their speech capabilities even when acknowledging speech difficulties. Yet, speech difficulty is sometimes considered one aspect that is different about persons who are hard of hearing, depending on the quality of their speaking voices or manner of speaking. For example, Swartz and Israelite (2000) found that participants in their study felt that professors made assumptions about hearing loss based on speech proficiency. Mark experienced this when his speech was a characteristic used by a professor to separate him out from those selected into a co-op program. Mark was one of three persons not accepted into the program and was subsequently told that his speaking ability was a factor in the decision. Mark wrote in his journal:

Mark: I felt upset, disappointed and frustrated because the Internship could have benefited me in the future. It was also unexpected that I was going to be denied and it was difficult for me to handle....This example of pure discrimination angered me.

There may also be different treatment for persons based on assumed levels of hearing losses. In the literature there is some suggestion that persons who are hard of hearing are not considered as seriously disabled as persons who are deaf. Dahl (1987) noted that the hard of hearing label does not connote the same degree of disability or of separation from society as

does the term “deaf,” and so it has been of less interest to society. One participant in the study with a mild hearing loss at the low end of the hearing loss continuum found that her hearing loss was less attended to than that of another student in her class who had a greater degree of hearing difficulty. When she got an FM system, the instructor thought it was intended for the other student. As well, a classmate asked to borrow it for another student who had a greater hearing decibel loss than Kathy. As written in her journal, Kathy felt that there was an implication that her needs were not of equal merit.

Kathy: This made me feel as if I didn't count as h/h [hard of hearing] because I don't have aids + therefore not as important to have support. Maybe it is a personal relationship unrelated to my hearing loss but by her not acknowledging it, it is somewhat an attack on me, making me feel less worthy of the equipment because I am less hh/ than another.

The foregoing dynamic suggests that there are hierarchies of need, and that some persons with greater levels of hearing loss are assessed as having more difficulties and more needs. Although this may seem logical, Kathy's experience was that her needs were less attended to, and it affected her relationships with some students in her classes.

Double Disability/Other Conditions

Wolff and Harkins (1986) estimated that children who are deaf or hard of hearing are three times more likely than the general population to have an additional handicapping condition. Tell, Levi, and Feinmesser (1998), found that learning disabilities, cerebral palsy, and mental retardation were the most frequently occurring additional disabilities of students who are hard of hearing. None of the 14 students in my study self-identified as having any of

these conditions. However, three students identified themselves as having other disabilities: one student was legally blind and two had mental health disabilities. Another student described herself as having been fragile in high school.

Sarah has Usher's Syndrome, a condition whereby symptoms of vision loss developed in her late teens. Sarah described her hearing loss as being less traumatic than her visual loss. She has had a hearing loss from birth, which has not changed over the years. She has adjusted to it all of her life. However, her blindness occurred when she was in her teens and her condition, Usher's Syndrome, could result in more deterioration in her sight and hearing as she ages.

Sarah: I have no knowledge of what it's like to hear normally whereas I remember what it is like to see perfectly. I remember what it's like to move around at night-time. I remember that. So I think having that experience, you don't want to lose that.

At present she can still see in the daytime, but has limited spatial and peripheral vision and little night vision. As well, if objects are low, such as a low table, she is apt not to see it because it is out of her field of sight. Sarah stated: *"It's not easy to get around. My peripheral vision is not good. I need light. I take time going down the stairs. During the days, I occasionally run into chairs."*

When Sarah returned to university she felt that she needed to come to terms with her sight disability. She was training to be a teacher who might deal with other students with

disabilities and their parents, and needed to be comfortable with her own disabilities.

Sarah: I did some looking inside of myself and said, "Okay, I need to deal with it." I am going to be working with kids with different disabilities and I am going to be working with parents who are not willing to accept their own child very well.... I need to get over my vision problems, you know, my feelings about it.

But it wasn't easy. One of her assignments was about Usher's Syndrome and Sarah recalled that working on the paper *"was the worst time of my life. As I was doing the research my personal feelings took over my professional feelings....I literally cried every time I did that paper."* She worked on the paper for three months and was given the option of selecting a different topic but was determined to face the issue and to complete the paper. She was glad she did because she proved to herself that she could overcome her own fears.

Sarah had another extremely difficult experience with her disability at university. She was informed by a guest lecturer that persons with her condition would end up totally blind. It was a year before she saw a specialist who ruled out the prognosis for her. Meanwhile, she almost had a nervous breakdown, but did not go to a counsellor to discuss her anxieties.

Sarah: I thought of it but thought, "How can a counsellor or a psychiatrist or psychologist, how can anybody tell me it's okay when I have the fear that I may lose all my sight and all my hearing? What do I say to this person?" No matter what, you are going to live in darkness: no sight, no hearing.

In Sarah's case her visual loss is not entirely visible because she does not need to use a cane nor Guide Dog; at the same time, her hearing loss is also mostly invisible. Thus, she has two invisible disabilities. This was also the case for three other students, although their other

disabling condition did not involve vision. The student's other disability, particularly if it is a mental health condition, may go either undetected or undisclosed, and possibly both, if the individual is unaware of having a second condition. The effects of the condition may be attributed to the hearing loss, masking the existence of a second condition. Thus, to most persons the student may present himself or herself as being a hard of hearing student rather than as someone with dual disabilities.

The foregoing was the case for Carol. She has a hair-pulling disorder, and when she is under stress she pulls her hair. Her condition led to depression for which she obtained counselling and medication. Because stress exacerbates her condition, she takes three, instead of four, courses. Asked if her illness was related to her hearing loss, Carol stated, *"I think that the stress which hearing loss can cause can trigger it."* She has not mentioned this condition to her instructors. *"If I did [disclose] it may make them more understanding, but I don't think it will and I don't want it to change the marking scheme or grading scheme. It should be the same for everybody."*

Ann was very frail both physically and emotionally in high school, although she was not clinically diagnosed as having a mental health condition. She found it hard to connect with others because she couldn't always follow what was being said. She did not seek help for her condition, and just gave herself additional time to deal with her difficulties.

Ann: I couldn't really fit in well. I felt isolated and alienated because of that and there was a discrepancy...a huge discrepancy in how I felt. When something went wrong I hid that part or I had to take time away and needed extra time. That's why I took longer to finish school because I needed that extra time. I gave myself that extra time.

The hearing loss may be less traumatic than the second disability, depending on the nature of the other condition, its severity, and its effect on being able to function. Darcy, who has been diagnosed as being clinically depressed, found his mental disability more disruptive than his hearing loss. When affected by it he suffered from a loss of confidence and an inability to keep up with coursework. Darcy's condition was diagnosed when he was an adult, but he was suspected to have been depressed as far back as 9 to 10 years of age. Darcy has been advised to take medications for his depression, although he has been reluctant to do so.

Darcy: I have found that when I got married, my depression almost went away, that is to say I was so euphoric about being married and it lasted so long that it was able to override any chemical imbalances or whatever else might cause depression. Since coming to University Z I have found that I am sort of starting to slide back into depression again.

Darcy said that he has been having second thoughts about his ability to continue his education, to graduate with a degree, and then to find employment as a teacher because of his hearing loss.

Darcy: I have started to doubt myself. "Am I kidding myself? Can a person with a hearing problem become a teacher? Will I get hired?" Because of that I am leaning towards the direction of depression. When I start to get depressed I don't do too well in school. I get more depressed. It's really hard to break out of.

Darcy's worries and difficulties with his hearing loss exacerbated his stress and vice versa. The combined effects of the two conditions increased his difficulties. This seems to

support comments that the presence of two disabilities is exponentially more than one disability (Jamieson, 1994; Moore Family, 1995; Moores, 1987).

Several other students discussed seeking counselling for various reasons. One student was stressed because he wanted to meet his own high expectations, another student felt depressed because she nearly failed a semester, and one student was recovering from alcoholism and was prone to feeling anxious and overwhelmed. In only one case, the difficulty was not hearing-related, as in the case of Gayle, whose father's alcoholism caused her distress. Another student discussed her difficulties in high school and her close monitoring of her mental and physical health. Altogether, two students identified having diagnosed mental health conditions and another five students discussed mental health issues.

Commentary on the emotional and psychological difficulties of persons with hearing losses has been addressed in the literature (Jamieson, 1994; Moores, 1987; Rutman, 1989; Schlesinger & Meadow, 1972). Viewpoints of ascribing such difficulties as innate to a person with a hearing loss have been repudiated. At the same time, it has been recognized that the communication difficulties ensuing from a hearing loss (which are prevalent for a number of sociocultural reasons) give rise to these types of difficulties. As noted above, only two students in this study disclosed diagnosed mental health conditions and a few other students discussed issues related to their mental well-being. This study was limited in the extent to which these issues could be explored, but findings suggest that this may be a subject worthy of further exploration.

Academic Profile

Finally, a word about the academic competence of the students participating in this study is in order. It is not improbable to consider that some of the students are “high academic achievers,” the term used by Menchel (1996) to refer to the university students with deafness who took part in his study. Several students, who participated in my study, entered university with A averages and continued to get As in university. They clearly demonstrated high academic performance. At the same time, there were other students whose grades were in the C and B range, and sometimes lower than that. In some cases, the grades did not seem to match the students’ academic potential and, in other cases, the students felt that they were performing at a suitable level. Thus, the individuals demonstrated a range of academic levels, and, I believe, individual qualities that made them university persisters based on their self-reports of tenacity and their handling of adversity. Not a single student was a drop-out casualty. This high rate of retention is quite exceptional considering the usual drop-out rates among students (British Columbia Council on Admissions and Transfer, 1992).

Transition Issues

The foregoing discussion on identity is important in order to understand the influence of a hearing loss on shaping identity. In the following section, issues of transition into post-secondary education for students who are hard of hearing will be discussed.

Numerous researchers have described university and high school as being two different types of institutions (Andres et al., 1996; Guppy & Bednarski, 1993; Stinson &

Walter, 1997). A key difference is that students are expected to be more independent and self-reliant in university than they are in secondary school. The independence students are expected to exert in university relates not just to arrangements for disability-related services, but also to university life in general. The students who participated in this study found this to be the case. They also found that there was some tendency to be over-protected in high school, and there was a considerable adjustment to university life, especially if they were required to live away from home. There was also an adjustment academically, both in terms of scholastic achievement and study patterns.

Four of the students in the study entered university directly from high school and five students went to college first, and then transferred to university. Of the other five students, two had recently transferred to their present university from a different university, one had been a homemaker, and two had been in the labour force prior to entering university.

Independence Emphasized

As mentioned, university students are expected to be independent, self-motivated and self-directed in their studies. Students found this to be the case and felt that if the way was prepared for them in earlier forms of education, it was easier to adapt to new expectations.

Yvonne's experience was that her high school teachers tended to do too much for her and did not allow her to be independent, which she knew would be required of her in university. She noted that her mother had to tell her teachers to allow her room to make decisions.

Yvonne: In high school it was my mom who talked to the teacher and let them know, "Now I am in charge of that." It's my responsibility to actually make sure that things are going the way they are supposed to, that I'm getting what I need and basically I become the one that determines what it is that I need and not other people. It's a whole different playing field that way. I have to learn how to negotiate things, discuss with the Disability Resource Centre just how many notetakers I need for a semester.

Students welcomed the higher expectations. Yvonne noted that the greater amount of responsibility required of her in university is good preparation for the labour force. Mark was also appreciative of the benefits of the approach in university, despite the extra work.

Mark: Lots more work now; lots more emphasis on doing your own thing. You really have to be independent. You really have to be a motivator, initiator. Now you have to get your own work done. You have to do your own research. You have to do this and do that. In high school it was all given to you. I think post-secondary really taught me how to sort of think better, think for myself, and how to solve problems better.

In elementary and secondary school, some of the students received services from an itinerant teacher of students who are deaf and hard of hearing. An itinerant teacher travels from school to school to work with students who are deaf and hard of hearing. There are also itinerant teachers for visually impaired students. These specialist teachers assist the classroom teacher in providing suitable accommodations for their students. At universities and colleges there are no similar positions. The closest equivalent to itinerant teachers are Disability Services Office (DSO) co-ordinators, but their caseloads are quite large and, unlike itinerant

teachers who often take the initiative to meet with students, disability services coordinators usually expect that students will contact them when assistance is required.

Several students noted that their itinerant teachers helped prepare them for post-secondary education. One type of assistance related to providing remedial education and tutoring supports. Mark noted that he benefited from such assistance, although his need was greater in elementary school than in secondary school. Mark got the help he needed from his itinerant teacher to develop study skills to improve his writing, and to work on his speech in elementary school. Visits were twice-weekly in elementary school and weekly in secondary school.

Mark: I didn't really need as much [in secondary school]. I just needed it for other things like applying for scholarships, sort of learning how to cope with the post-secondary school system. In Grade 12 and, after that, I didn't really notice any change because I was so dependent on myself that I didn't really notice any change. I didn't really miss a beat or anything.

Gayle also received assistance from her itinerant teacher with school subjects, but she found that her teacher was less helpful than she could have been. She said their relationship evolved into a friendship, and they spent a lot of time just talking.

Gayle: But, in retrospect, through it all as far as really helping me with the needs of English language and all that which is what we ultimately should be working on, we weren't working on. So it's hard for me to say that. She's a friend so I like her. It brings in different politics. But, as far as her job and that goes, I have to say it's a little problematic because we ended up talking about her own personal life, which is really not the place.

Gayle felt the itinerant teacher did not help her to develop her writing skills. As a result, Gayle did not enter university with good writing skills.

Gayle: This is the result of not really working on it; just the approach that was taken back in high school was her editing papers and me directly copying it. There wasn't enough practice of me actually doing it. I was too young back then to know [any different].

James had an itinerant teacher who visited weekly and enquired about his FM system and how things were going. However, James found that the teacher was unable to help him get his FM system working in his senior high school years. When it came to making the transition to university, James chose not to get the assistance of his itinerant teacher. He decided this after he did not get a university entrance scholarship for students with hearing losses; the itinerant teacher was on the selection committee and advised him that he did not get the award because of his family income. James felt he had been misled about the scholarship.

James: This is from a guy I have worked with all my life and this is what he said to me. He was on the committee to help decide.... I was very upset. I went through a lot of work to get this organized My attitude changed towards him.

Itinerant teachers often arranged for students to visit post-secondary institutions and DSO coordinators. Yvonne visited both University X and University Y and chose University X. One reason was that she thought that University Y, by offering her early admission, was over-eager. Carol met with a DSO coordinator at the University Y, but not at the University X,

which she decided to attend. She was subsequently surprised to find that captioning services²⁹ available at one institution were not available at the one that she was attending. She assumed it would be the same and was disappointed not to have captioning for her classes.

Carol's lack of accurate information had serious consequences for her. Her example illustrates what is already known: all too often students lack accurate information (Andres, 2001; Beatty-Guenter, 1992; Braxton et al., 1995; Guppy & Bednarski, 1993; Tinto, 1993). Menchel (1996) and Swartz and Israelite (2000) found that students lack information about disability-related accommodations. For students with disabilities this is an area of knowledge that is crucial for effective transition to university. As Carol found, students cannot make assumptions that the services at different institutions will be the same or, if similar, offered in the same way.

More Negotiation for Disability-related Needs

Almost all students found that they were expected to negotiate for their services more in university than they had done in other forms of schooling. Besides the expectation of being a self-directed adult in university, there was also the practical aspect of interaction with the instructor. Whereas students may have known teachers throughout high school, in university they may have an instructor for a class one semester and never see the person again. Although this is true for all students, for students with disabilities it means that they have to spend more time educating instructors about their disability-related needs.

²⁹ As explained in the Appendix, captioning services in the classroom refers to a printed rendition of verbal content by a typist; the lettering appears on a computer monitor or television screen visible to the student.

Yvonne: In high school you had teachers that you had interacted with on an intimate level. They got to know me much more and I had some teachers that taught you in a small school setting. You had teachers that you had in Grade 8 that you knew right through high school whereas in university you only know for one semester. That's a different situation. They could completely forget you, even if you had them again later. You have to re-educate them all over again.

Just because university students had to spend more time ensuring for the provision of disability-related accommodations, they did not find that the accommodations were any less than those they had received previously. The extent to which services were less or more than those that had been received in high school or at another post-secondary institution depended on the institution and its policies and people. In some cases students may not have received any services previously, as was the case for Yvonne, who stated, *"Considering I didn't have service in high school, it's quite impressive."*

Three students noted that they got more services in high school, but they had not expected that to continue in university. Although these services had been necessary in elementary and high school, they felt that university was different and that they themselves were older and more self-reliant, and so less in need of the same services. Carol noted that she has found that it is up to her to arrange for her notetakers and technical equipment. She has to expend more effort to ensure she gets accommodations than she had to previously.

Carol: I had a lot more support in high school. I had a teacher that visited me every week, sometimes twice a week. I was a bit vulnerable back then in high school, whereas now I am more independent. I think everybody who comes to university experiences that kind of a change where there is more independent decision-making. So the support I am getting right now is really the concern. That I have the equipment. Make sure I have notetakers. It's up to me to ask for that.

Being Prepared Eases Transition

In his three-part explanation about drop-out related to transition, Dougherty (1987) found that attrition can occur before transfer, during the transfer period when problems are encountered, and after the transfer process. Problems after transfer could include credit loss, decline in grades, lack of financial aid, and social integration problems. Students with disabilities have unique transition issues related to managing their disabilities in a new environment and ensuring that their disability-related needs are met. Both of these requirements are eased by advance knowledge and planning.

Carol managed her disability at university by having been prepared that university would be different from high school. She was told that taking a full schedule of classes might be too much and was advised by her itinerant teacher and her counsellor at a service agency to take a reduced load of classes. Carol heeded the advice and felt that a reduced courseload eased her transition into university.

Although some transition issues may be unique to students with disabilities, other issues are applicable to them, just as they are for other students. Academic standing is one such issue. Andres (2001), Andres et al. (1996), and Dougherty (1987) have noted that either

disappointment over dropped grades or low academic standing can result in problems adapting to university. When students ease their expectations, lowered grades will be less likely to lead to drop-out. Carol was warned by her teachers that this frequently occurred, and her grades did drop, from As and Bs to Bs and Cs. Because she was forewarned, it did not throw her.

Carol: It's the change itself that comes as a shock to many people and having to be independent. All those other factors, makes starting a new page of your life just a bit more difficult than the last. I am not surprised. I was prepared for that.

Yvonne was not prepared for the drop in grades she experienced in her first university semester. She was accustomed to getting good grades and working hard, but found that she relished the freedom of university and, in her first year, she did not apply herself. She failed one course and got Cs in two others.

Yvonne: Oh, I bombed in my first semester. I was goofing off. It was a combination. I worked so hard in high school...and I was always academically driven. Making the grades was important to me. I came to first-year university. I am thinking, "I don't have to wake up everyday at six or seven o'clock every morning. I don't have to do homework everyday. I can have fun."

The experience of getting low grades was a wake-up call for Yvonne. *"I basically pulled my socks and the next semester I got a GPA of 3.7. I didn't like not doing well in school. That was a big thing for me to do well in school."*

Adjustments Differ in Relation to Family

Yvonne's adjustment to university was affected by her being separated from her family. James also found it difficult to adjust without having his family close to him. Although he liked his residence, he missed his family to such a degree that he wasn't sure he would be able to handle it. During the interview, he was visibly in tears when he said he was homesick. *"The first while it was like I never realized I am not going to see these people everyday. The first day it was really bad because I didn't have anything to do."*

He continued to feel homesick, saying *"I wish I was home and could talk to them."* He said he dealt with his homesickness by recognizing that university is something he has to do. *"I basically just think of it as I got a chance to do this and I have got to be here. I have got to do this. This is something I have to learn to do."*

Adjustments to changes in family proximity have a developmental component. James illustrates the separation anxiety from their families that younger students may face, and Yvonne also cited adjustment difficulties. None of the older students cited such experiences. These differences are similar to those cited by Bean and Metzner (1985) between younger and older post-secondary students.

However, older students may still experience anxieties upon entering university. These anxieties may be more pronounced for older students than for younger students when they are making a significant role change. This was the case for Heather, who had been a homemaker for many years before deciding to go back to school. She found returning to school very demanding. *"Going back to university was an emotional, social [experience], and everything. This really took an enormous courage for me."* Heather enrolled in a program for mature

students to return to university and found that this helped ease her transition back to university. Heather's reaction is consistent with literature findings by Pascarella & Terenzini (1991), who surveyed the research on interventions such as programs and services. They found that interventions enhanced student retention and adaptation, and the effects were most pronounced in students' first year of studies.

Academic Adjustments Required

Part of the transition stage at university is making academic adjustments. Menchel (1996) and Warick (1998, February) have discussed how students who are hard of hearing may need to change their learning approach at university, especially if they had been text-reliant previously. Several students spoke of changes they were required to make in their new environment.

James found that he needed to adjust to a different style of instruction from that to which he was accustomed in high school. He found that university instructors emphasized their lectures, as opposed to the text.

James: I found it a little bit hard to digest because I am from a small town and I found some things have been difficult to get used to, such as the history course, the way the professors do things. They don't write anything out. They just talk about the subjects.

Carol found that she needed to modify the way she studied and absorbed information because she had always been dependent on the written text. In university that approach did not serve her well and she did not do well at the outset.

Carol: At university level, the exam and course work and course material is based on that instructor's lecture or the information they are sending across to the students. So I studied mainly from the textbooks and notes and came to realize that that exam was stuff that was not in the textbook, and then I found out later that it was something that was orally communicated I had missed and not picked up on.

As a result, Carol changed her approach to focus more on what the instructor taught and to review her class notes carefully. She also asked other classmates for assistance and checked the Internet for the class notes. For many of her classes, information was posted on the web.

For a couple of the older students, their first year back at university was not a pleasant experience because of the courses in which they were enrolled. Jennifer had been advised to take both statistics and research courses in her first term.

Jennifer: It was hell. It didn't work very well. I didn't pass Research. I made it through Statistics. I don't know how. Later I was told, "Maybe we should have known better than to tell you to do both of them side by side. It's a course needed to do alone." I was told later, "Did you know we have tutors available?" I didn't know that. I could have used tutors. It was a terrible experience for me. Very terrible.

Charlie also had a difficult start because he was enrolled in the wrong set of courses. Difficult starts almost cut short both his and Jennifer's university stay; their experiences are discussed in more detail in the next chapter on academic experiences, but are mentioned here to underscore how the initial year at university was found to be crucial for the students in this study.

Transition Eased by Going to College First?

Four of the 14 students in the study had gone to a community college previously and two of them, to another university. This may be considered a substantial amount of inter-institutional flow, in keeping with a provincial post-secondary system that tries to promote transition from college to university (Andres, 2001).

On the question of whether they would recommend to other students who are hard of hearing that they go to college before attending university, only a few students were definite in their responses. Those students who favored initial experiences at college tended to be students who themselves had gone to college first. However, most students felt that individual factors would indicate which option is better. Among factors for consideration were (1) program choice, nature of the program, and its availability at a given institution, (2) culture and size of the institution, (3) personal factors, such as level of academic ability, age of the person, and strength of personality, (4) social status and reputation of the institution, (5) location of the institution, and (6) financial viability.

Program Choice

For a number of students, the choice of institution related to program offerings. For example, Mark started out at a college but would not have been able to continue because it did not offer a Commerce program that he was keen on taking. Choice was not only related to subject-matter; it was also a matter of course quality. Darcy felt that a choice of a university or college would depend on whether one wanted a more theoretical or a more practical type of

program. Kathy, Jennifer and Sarah choose University Y because of its program to train teachers of students who are deaf and hard of hearing. Mark and Ben felt that a year or more at college helped prepare them for university.

Mark: A college is pretty good because colleges are a little bit different. College is more like high school, but it is kind of half between full-fledged university and high school. I don't think I would have made the transition very well from high school to university. I don't think I would have done that well. I am glad that I have done one year at college. That really helped me.

Ben also supported going to college before university because there was more opportunity for hands-on experience. However, Ben clarified that his view was from a science program perspective and that he did not know if it would apply to the Arts courses as much.

Ben: College made university life a lot easier.... University you don't do field trips. College you will be doing hands-on experience.... College classes are smaller, and it is more hands-on. It is easier to get a feel of it. In university you get the really large classes. You don't have any idea what's going on, and you are lost.

Mark's and Ben's sentiments echo findings of a study by Andres (2001) in which over a third of the participants described a community college "as a 'stepping stone' to university, a way of easing out of high school before tackling the rigours of university life" (p. 47).

However, Ben's experience also demonstrates one of the transition difficulties students may face when transferring from a community college to university, namely, that some credits are not transferable and it may take longer to complete studies. Ben found that he might have finished his program sooner if he had gone straight to university. However, he said he was

"fairly content" with his choices because he felt college was a good step for him and he benefited from the experience.

Not all students were content with using college as a stepping stone if it prolonged their total time in post-secondary studies. Darcy attended a college and stated that he benefited from the smaller classes, which helped to reduce the effects of the hearing loss on his learning. However, like Ben, he felt that he paid a price for going to college first because it lengthened his program of studies.

Darcy: I almost wish I hadn't taken any courses at a college and had just started at university. It would have shortened my time. I took my second year at college. I got second year standing but there were so many second-year courses I had to take here. The only thing positive about it was a much smaller environment.

Culture of the Institution

Some students believed that a college would be a more conducive environment for students with a hearing loss than a university because of its smaller size, more approachable culture, and, in some cases, a friendlier disability office. Rachel was one such student who felt more welcomed at the college level than at university.

Rachel: Maybe because University Z is so big. I found University Z a bureaucracy with red tape I am just a number. I am not a person. I am a number. At College I could ask for anything. At University Z it was like, "Oh, what do you want now?"

However, not all students felt this way. A few students felt that there was more tolerance at a university and felt that the institution was more responsive to them. Darcy, who

felt that some of the people he had encountered in college had intolerant attitudes, stated, *"University is so much better. There's a wider variety of experiences and there's so many resources."*

Personal Factors

Age and a student's level of maturity were cited as factors affecting choice of a post-secondary institution. Sarah recommended that older students might want to go back to college first because it would be *"easier after so many years being out of school."* That is what she did. For someone coming right out of high school, however, she said the choice of institution really depends on the person. If students are strong academically, they could go to university, but if they were not so strong, college would be better. Their level of independence may also factor into the choice.

Sarah: If average in high school, you know what, high school is very different from college and university. Better go to college first. Classes are smaller than university classes. First two years at university level you are in a lecture hall with 200 and 300 students whereas at college there's little more than 40 students. You get used to using and finding the resources you need - resources from Students with Disability Services, then it is not so overwhelming because some students are so overprotected by their parents. I would recommend college because university might turn them off completely.

Linked to the issue of program choice are the individual's own interests and future aspirations. Sarah noted that a choice of going to university or college *"all depends on the individual as to what they want, where they want to situate themselves, whether they want to study in B.C., abroad, finances, one's marks when they graduate."*

Location

Living next door to a certain type of post-secondary institution may influence one's choice of post-secondary education. When Ben went to college he lived only a block away from the institution. However, a number of students preferred to move away from home, considering that a positive feature of university life. Some students may not get to make this choice if their hometown does not have a post-secondary institution. Both of the former reasons were at play for Ann. Her hometown did not have a post-secondary institution and she aspired to go away to fully experience university life.

Finances

Cost was cited as another factor in determining the viability of post-secondary studies and the appropriate type of institution to attend. James chose University Y over an out-of-province institution, partly because he felt it was just as good a financial choice. Ann felt that college would be a better initial choice because of lower tuition, and she perceived little difference between college and university courses. At the same time, she advised that if students could afford university, they should go there, although other factors would play in the decision.

Ann: If they have the money, why not university? It really depends. Are they looking for a small environment or large environment? Some people like to get lost in a big crowd. Other people like more friendly, warm environment. I would ask "What do you want?" and go from there.

Social Status/Reputation

Even those students who felt a college had a lot to recommend it were still drawn to a university education because of its higher status and reputation. Mark noted that university *"has more marketability even though the quality of the education may be the same."* Gayle stated that a university was her preference for similar reasons. *"I think it is also a societal thing as to how university has been construed as giving more status than college. Striving for the best- perhaps that's why I chose to go there,"* she stated.

Ann did not go to college because she was encouraged to go to university.

Ann: The advisors and teachers in our high school really pushed for university as opposed to college for me because I was the top five in my Grade 12 year, and they said, "Go to university. The education would be higher; competition would be higher; opportunities would be more". They pushed for university and I never thought otherwise. Looking back now I probably would have entered college first and then university.

Ann's last comment is made on the basis of believing that a college would have been smaller and, therefore, easier to manage. Despite this she felt that the university she had attended was well-suited for her and she had chosen it despite the fact that all her friends had chosen another university.

Ann: At the last minute I changed my mind and decided to go to University Z to a campus I had never been to unlike my best friends, who were going to University Y. I don't know. It was one of the best decisions I ever made. I love this university. I really can't explain it.

Ann went on to explain that the university she chose to attend was sufficiently small for her to feel connected to it. Furthermore, she felt part of a community, a dimension of importance cited by Tinto (1997).

Summary

Participants shared a common identity of being hard of hearing, most often choosing this term to distinguish themselves from hearing and Deaf persons. They considered themselves similar to hearing people in communication style, but different because of the difficulties with hearing. In contrast, they considered themselves quite different from Deaf persons by virtue of having some hearing, communicating orally and not being fluent users of sign language nor being part of Deaf culture. Another distinguishing aspect was use of hearing aids, which was considered of benefit to persons who are hard of hearing but not those who are deaf. One characteristic, which was not highlighted as part of being hard of hearing, was speech difficulties, although a few students cited such difficulties. This supports findings by Israelite et al. (2002) that speech is not part of the identity definition for persons who are hard of hearing. Meanwhile, hearing persons make a link between vocal qualities and hearing loss, thus considering it to be a defining characteristic.

Although most students agreed with the hard of hearing label, several stated that they disliked labels, finding them to be depersonalizing or having an edge of blaming the person for having a hearing loss. This could be because they wished to avoid stigmas frequently associated with having a disability. They endeavored to reduce the sense of “othering” and emphasize similarities rather than differences to do so. As an agent, the student who is hard of

hearing is seeking to be considered, by the institution, as a hearing student although the nature of a hearing loss and the need for certain accommodations to overcome it may not make this entirely possible, as will be discussed in subsequent chapters.

Three students participating in this study had additional diagnosed disabilities, one who was defined as legally blind and two with mental health conditions. Of these, two students spoke of the considerable difficulties experienced with their additional disability.

This chapter also explored transition issues into post-secondary education. Although transition experiences varied, two unique aspects for these students were, first, a need to be knowledgeable about disability-related supports at their new institution and, second, the necessity of developing skills to negotiate for disability-related services. Sometimes students were not fully informed of the services available, expecting institutions to be alike in their availability of services. As well, these students had experiences not unlike other students making a transition to university, including the common experience of a decline in grades. Matching expectations to experience was a successful adjustment strategy, and taking steps to improve was necessary for those in academic jeopardy due to poor grades. Academic adjustments were faced by students, notably in adjusting to different styles of instruction and changing study patterns.

Another important dimension in successful transition was the extent to which students were able to be independent and take responsibility for themselves, which they felt was required at university. As well, their transition was eased if they already had the level of writing skills required at university. One student felt she had not received the assistance required in this respect.

Age-related differences were noted in terms of family relationships. Two younger students were away from their families and experienced adjustment difficulties; older students did not report such feelings. As noted previously, these are age-related differences in keeping with differences between older and younger students noted in the literature (Bean & Metzner, 1985; Metzner & Bean, 1987).

Four students had gone to college before studying at a university. Their view on whether this was desirable was mixed. One student stated that she found it beneficial in preparing her for university, whereas another student would have gone to university directly if he were doing it again; he lost credits in the transfer process. Other students felt that a decision to go to college would depend on a variety of factors if they were advising someone, including such factors as programs offered, institution size, location, personal finances, reputation of the institution, and personal factors such as the student's academic ability, age, and maturity.

As summarized above, this chapter shed light on how study participants define themselves and on various factors that affect their transition. Subsequent chapters will explore the nature of students' university experiences.

CHAPTER FIVE

THE ACADEMIC EXPERIENCES OF STUDENTS WHO ARE HARD OF HEARING

The literature on the retention of students in university emphasizes the importance of the academic and social integration of students (Tinto, 1975, 1985, 1987, 1993). Academic integration refers to congruency between the “needs, interests, and skills of the individual and those of the communities of the institution” (Tinto, 1985, p. 36). Tinto is clear that academic integration involves not only the formal climate of the classroom, but also the informal realm including day-to-day interactions with faculty and staff.

In Tinto’s Longitudinal Model of Institutional Departure (see Figure 1 in the Literature Review), the academic system comprises academic performance and faculty/staff interactions. The persistence of students is affected by their intentions, goals, and institutional and external commitments. As well, the individual’s own family background, skills and abilities and prior schooling all play a role in influencing the commitment and subsequent integration of the student in university or college. In Tinto’s model, the academic system is not completely separate from the social system; academic and social life are interwoven because what happens socially affects the classroom, and vice versa.

As shown in the literature review, there has been considerable research that has further illuminated components of academic integration, some of which have lead to refinements of the model. These contributions include the importance of recognizing diverse patterns between traditional and non-traditional students (Bean & Metzner, 1985; Metzner & Bean

1987); the value of informal faculty contact (Pascarella & Terenzini, 1977; Terenzini & Pascarella 1977, 1978), and elucidation of organizational components (Bean, 1980, 1983; Pascarella, 1980).

The third research question of this study was to understand the nature of the academic experiences of university students with hearing losses. Students were asked about their interaction and communication with instructors, their classroom experiences, and their approaches to their academic programs. Their experiences with academic advising were also explored, as well as the nature of their commitment to the completion of their university studies.

This chapter will discuss the findings from the interviews and journal entries of 14 participants in this study to convey a picture of their academic experiences in university. Subsequent chapters will describe the participants' experiences with the social aspects of university life, as well as their experiences with disability-related accommodations.

Classroom Dynamics

Approaching Professors

Student-faculty interaction has been found to be a key aspect of students feeling part of a university community. Students feel a sense of belonging when faculty express an interest in them and convey a sense that they matter (Hawkey, 2000; Pascarella & Terenzini, 1977, 1991; Terenzini & Pascarella, 1977, 1978). Good rapport increases the likelihood of students approaching instructors after class or during their office hours. Furthermore, by making such

contact, students feel more connected to the class and, thus, more integrated into the academic life of the institution.

However, students with disabilities often have to take a step that students without disabilities do not have to take, namely, informing professors of their disabilities. Self-disclosure is even more important for a student with a hearing loss because the disability is often invisible. A professor might not know a student has a hearing loss without being informed of the condition. Furthermore, even knowing of the existence of a student's hearing loss, a professor might not know the student's needs without them being spelled out.

Self-disclosure of a hearing loss is not an easy and simple step for a student. Part of the psycho-social dimensions of a hearing loss may result in some reticence to disclose (Swartz & Israelite, 2000). Students may experience social stigma (Dahl, 1987; Getty & Héту, 1994) and feel between the worlds of the hearing and the deaf (Antonson, 1998; Lutes, 1987; Warick, 1994b). Thus, persons who are hard of hearing often try to pretend to be "normal," that is, like hearing peers (Swartz & Israelite).

Students participating in my study were varied in terms of their self-disclosure about their hearing losses. To some extent, by participating in the study, they were already indicating a disclosure behaviour that may not resemble a typical university population of students who are hard of hearing.

Many of the students stated that they self-disclosed and were required to do so to obtain disability-related accommodations. Disclosure to professors was eased for some students by having a letter from the Disability Services Office that introduced the students and their requirements in the classroom. The letter served as a starting point for a discussion.

Other students, however, did not use a letter and were more informal in their introductions to professors.

Some students clearly saw it as their responsibility to inform their professors of their hearing loss. Charlie noted *"I, as a hard of hearing adult, have the responsibility to tell the prof that I am having difficulty understanding them. If they don't know, it's my responsibility that they don't know."*

Students learned from experience how to do an effective introduction. A first-year student, James, handled his first-term introductions in the few busy moments preceding class. One such introduction resulted in a misunderstanding over use of his FM system. At first, the professor thought the FM system was a recording device, and so was initially reluctant to wear it. James said he learned that he should meet with professors during their office hours. *"I find not only does it help [get accommodations], it also helps with my relationship with the prof. I go in and actually meet them,"* James stated.

Not all students self-disclosed at the outset of the term, but they usually did so if problems arose. Gayle said she would tell professors if *"it is absolutely necessary; if it is going to impose on my marks."* For example, she might be expected to demonstrate a level of class participation which her hearing would make difficult and, if graded accordingly, her class mark might suffer. In such a situation she would inform the professor about her hearing loss and request consideration.

Some students preferred not to self-disclose because the professor's teaching already met their needs and because they did not want to be treated differentially. Heather noted that she has no need to tell the majority of her professors. *"Everything is going along smoothly; I*

just let it go along smoothly." Moreover, when she casually informed a professor about her hearing loss on one occasion, she didn't like the way it changed their relationship.

Heather: She [the professor] is feeling bad, which is one of the reasons why I don't say anything. I tried to tell her it's okay after all these years you just carry on and I deal with it.... She's got the problem, not me. She tends to make me very dubious about going up and telling the professor.

Hearing Professors

One of the crucial issues for students who are hard of hearing is being able to hear their professors. Frequently, they encounter difficulties doing so. Students who are hard of hearing have difficulties hearing when instructors do not face them when speaking (Stinson et al., 1996; Warick, 1994a, 1998). Students in this study experienced difficulties hearing when professors paced in front of the classroom while speaking and faced the blackboard instead of the class. Yvonne said that some professors have a tendency to wander around the lecture hall while they are talking. She suggested that *"if they must pace around, to do it in a way where I can actually see their faces -- that would be great."*

Carol noted that, although she might catch the first part of what was said by a mobile professor, she would miss the last part. The difficulty was compounded by having to constantly shift her attention between the professor and the blackboard or overhead.

Carol: I am having to watch what is being written and having to watch the professor so that I miss that oral part....so I have to make a decision [whether] to watch the speaker or what is being written on the board.

Another problem was that professors provided additional or new information about an assignment or an exam at the end of a class. At the same time, the noise level in the classroom had risen because students were packing up their books and getting ready to leave. Yvonne had the experience of finding out about an exam after the fact because the change in the date for the exam had been announced when the class was near the end.

On occasion, some students had difficulties hearing professors even when they faced the class or spoke in a quiet environment. This was particularly the case if professors were soft-spoken or had a strong accent. Mark had this experience: *"The only concern that I have had is I had one to two profs from some other country and they have accents which I have a hard time understanding."*

Differences in hearing losses mean that some students have difficulty with certain sounds, such as consonants or vowels, and have difficulties with the pitch of sound. Speakers contribute to the difficulties when they change the cadence of their voice or lower their voices at the end of sentences. As a result, some students may miss hearing some words or parts of a sentence.

Carol: I think I do hear them, but I don't always understand it in terms that I mistake words for other words, or understand half of a sentence. Usually it's towards the end of the sentence and I make assumptions of the beginning.

Difficulties could also be experienced in hearing teaching assistants for similar reasons. James noted that he had to contact the lab instructor because his experiment was not giving him the desired results.

James: I contacted my TA, who has an odd accent. I find it very difficult to understand him when he speaks. This makes an awkward situation even more awkward. If I was able to hear better I would not be mishearing him all of the time. After a frustrating discussion, we both understood each other and tried to correct the problem.

Three students said that they were hardly able to hear their professors. One such student, Darcy, noted that he continued attending classes “*because they keep me motivated more so than because I learn from them.*” He also attended classes to get information about due dates for assignments and exams.

Students’ hearing strategies included the use of technical supports, such as FM systems in some cases, to obtain notes from classmates or the instructor, and to request that the professor change her or his communication style. However, as Darcy noted in his journal, it was stressful having to do so.

Darcy: The professor today spoke whole swaths of information directly to his overhead, looking down or with his back turned to me. I spoke with him after class to once again ask him to please remember to speak looking forward so I can read his lips. He seemed a bit annoyed (but then again, he seems that way all the time), but apologized and said he would try to remember that.

Another strategy employed by students was to sit at the front of the class or to carefully select their seat based on their better hearing ear and where the dialogue in the class was likely to be directed. Darcy was usually the only student in the front, which he preferred

so that he did not have to worry about hearing over other students' side conversations. Darcy wrote in his journal about his negative experience of this nature.

Darcy: I find myself in the relatively unusual position of jockeying for seats in the front row due to the professor's unwillingness to use a microphone in this auditorium-setting classroom. The class can seat nearly three hundred and is the size of the average movie theatre; when the prof doesn't use a microphone, it is nearly impossible to hear him in the back rows, so people crowd the front and I am suddenly not alone in wishing to sit as close to the front as possible.

Darcy went on to note that the other students did a great deal of talking and giggling, which prevented him from hearing the professor. He again requested that the professor use a microphone, which was turned down. Darcy ended up writing that the class was progressing poorly and that he was "*just in way over my head.*"

Other strategies employed by students were to select classes based on prior knowledge of the speaking voice of the professor or the acoustical condition of the classroom. If students found that they were already in a class with a difficult-to-hear professor or which had poor acoustics, they might try to switch to take a class from another instructor in a different section of the course. However, this was not always possible when another section was unavailable.

Nature of Interactions with Professors

Positive interactions with professors are critical in the academic integration of students in university (Andres et al., 1996; Hawkey, 2000; Pascarella & Terenzini, 1980, 1991; Terenzini & Pascarella, 1977, 1978; Tinto, 1982, 1993). Students who can relate to their instructors are more inclined to continue with classes and to complete them than are students

without such relationships (Pascarella & Terenzini, 1991). Informal contact is important to retention, not solely formal contact (Pascarella & Terenzini, 1980, 1991; Terenzini & Pascarella, 1977, 1978).

Students tended to rate their interactions with professors positively (EMRG, 1994; Walker, 1999; Warick, 1994a), although there can be the occasional difficulty with refusal to wear an FM system (Warick), singling out of the student (Schwartz & Israelite, 2000), or treating students in a stereotypical manner (Schwartz & Israelite). Leyser et al. (1998) found that professors had limited knowledge about disability-related needs, but were receptive to providing accommodations if the alterations were not extensive or time-consuming.

The students participating in my study tended to confirm these previous findings. Most cited positive experiences with instructors. Gayle noted that several of her instructors were open and accommodating. *"I feel well respected after notifying my professor [that] I have a hearing impairment. She encourages me to ask whenever I don't hear what she is saying."* Charlie observed that one of his professors made him feel very comfortable. *"She doesn't put me down or anything; she has a way of using her natural humor to make things a lot easier."* Mark was glad that one of his professors lived on the same street. *"It's positive because he knows me well and is fully able to teach knowing of my hearing loss. It's also nice to have a professor who knows me personally."*

Nevertheless, students also cited negative experiences, and, in some cases, extremely negative ones, stemming from a lack of understanding of their disability and a lack of willingness to provide consideration. Rachel said that she found a lot of her professors were unsupportive and not knowledgeable about hearing loss in many respects. She found them to

be "very standoffish. [The professor] did not want to deal with me. Felt I was going to make their life difficult."

Charlie had a professor who initially refused to wear the transmitter part of his FM system. Even more offensive, though, was how the professor handled wearing the hearing device after relenting to do so. Charlie said that, in a loud voice, the professor told the class, "We have a deaf student in our class. That's the reason why I am wearing this thing." That was not the only hurtful experience he had with this instructor. In the presence of a teaching assistant, the instructor talked about Charlie as if he were not present. The instructor also told him that she could not understand why he could not take notes for himself.

Another student had an instructor who did not want to tell the other students that she was using an FM system, even though the equipment was visible to other students. As a result, the other students in the class misunderstood what the FM system was all about. They thought it was a microphone that the instructor only needed to turn on for them.

Carol: There weren't a lot of people in that Math course, and they always asked if he would use a microphone because they can't hear what he was saying. And he said, "No, I am not going to use a microphone because I know my voice will carry over so you better come sit down in the front." But he was wearing a microphone so they must have been confused about what that was. I didn't feel that it was my place to intervene there.

Carol said she felt uneasy when the same professor did not want other students to know that he was providing her with his notes. With respect to other professors, she felt that the experiences were more positive, but she still found that initially most professors were uncertain about how to respond to her.

Carol: In general, I think at first they are a bit cautious. Sometimes I think they perceived that I very much need help and that I am not as independent as I think I am – “maybe I can’t keep up with the course load; it needs to be modified.” Sometimes they do ask me, “Do you need exam modifications or to be excluded from certain things?” It’s rarely that they would suggest an alternative.

Kathy, who was in a class with another student with a more pronounced hearing loss, felt that one of her instructors was more sympathetic to the other student and tended to ignore her needs.

Kathy: Because I got my FM so late, it was the first time I wore it to this class. The teacher, quite abruptly, asked me why I was wearing headphones. I was taken back by this comment, but I also realized that this was the prof that forgot I was hard of hearing.

Some students felt that professors tried to be accommodating in the way that they communicated but tended to forget about adaptations. Darcy noted that he found that “*they are really good the first couple of times and then they start to forget.*” He had one professor who looked annoyed when being reminded to speak louder and face the class. Darcy concluded, “*I realized that I was on my own and need to deal with it however I can and not worry too much about getting the professor to deal with it.*”

Several students remarked that the invisible nature of a hearing loss contributed to the tendency to forget about them. Because they do not look any different from their hearing peers it was easy for a professor to interact with, and regard them, as if they were the same as

other students. Jennifer felt that because her hearing aid was not visible, it was easy for instructors to forget that she had a hearing loss. Mark shared this sentiment.

Mark: It's their own perception of me. I had people tell me that "I totally forgot you have a hearing loss." I still have my problems and still deal with them, but it's normal for them so they don't think about it anymore.

Not only do instructors "forget" that students have hearing losses, but they may also assume that students have heard what has been said, when, in fact, they have not. Instructors may not be attuned to cues as to what constitutes reception of the message, or the students themselves may not give any obvious cues.

Charlie: People think hard of hearing students understand and we don't because the manifestations of the symptoms of our hearing loss is different. Mine is quite serious because I could sit there and talk to you and then you will say I can understand. "He can understand me." But in fact I don't.

Program differences affected the interaction of professors with students, as found by Hawkey (2000). Students who felt that their professors were extremely knowledgeable tended to be in a specialized program where the professors have previously worked with students who are hard of hearing. Jennifer, who was in a program to train teachers of students who are deaf and hard of hearing, said *"I think I have been fortunate enough to have very understanding professors because of the program I am in."*

Gayle, a fourth-year student, found one of her professors was very receptive to her. This had more to do with her discipline, than her being hard of hearing.

Gayle: She [a professor] is supportive, largely because there aren't a lot of people in that field. There aren't a lot of women who participate in gender work and international development planning. There is real demand for that, particularly women. She wants to see as many women as possible in that area. Is it a political thing? Is it a personal thing? I think it's both. It's not just because I am who I am. I think it's overall.

Nature of the Approachability of Instructors

Many of the participants in the study spoke of the need for professors to be willing to spend an extra five minutes or so clarifying class content. For some, this is one of the most important accommodations which helped students to pick up class material that had been missed or not well understood. Mark noted that he regularly approached his professors for help and that frequently he received substantial assistance.

Mark: I am practising for the final now. He [the professor] will give me example questions and I work through it and when I run into problems I will say "What has happened here?" and we will go back and he knows exactly why.

However, not all students were comfortable approaching their professors for additional assistance. Some students felt they were not able to follow what transpired verbally to the extent that they felt able to approach a professor after class. They felt they needed to have some knowledge of exactly what to ask a professor. As well, if they had an initial negative reception they would not be inclined to go back.

Ann: I would avoid asking questions of the prof because I wouldn't know enough to base the question on. I couldn't follow the lecture enough to be able to ask questions so I would often avoid entirely asking profs questions.... I went to students first. There were a couple of times I went to profs but they were more negative than positive.

Ann's preference to go to students first was echoed by a few other students. They simply found it easier to approach peers. This reinforces findings (Andres et al., 1996) that sometimes students feel most comfortable seeking help from classmates.

One reason for the limited contact with professors could be that students expected that university professors would be extremely busy and not have a lot of time for them. Even students who approached instructors frequently had this view.

Mark: They are busy and have a lot on their plates, so there's not so much time for students. One professor did not even finish my meeting because he had something else. I didn't like that too much but it happened.

A couple of students noted that there were considerable differences between high school and university in terms of the amount of support provided by instructors. They did not get the same level of support, nor did they expect to get the same level of support. They perceived that students were expected to be more self-reliant and independent in university than was the case in high school. Their perceptions were confirmed when they found that instructors were not readily available in university and did not monitor their progress to the extent they had previously experienced.

Carol: I don't think I can ask for [the] same degree of support as [I] could with my high school teachers.... It is expected that people become more independent as they go on with a formal education, and when I do go their office hours are very limited and there's usually a line-up. I have asked a few times to meet at different times and that just [did] not always work out because of scheduling conflicts.

First- and second-year students were less likely to connect with professors than were students in their senior years. This supports Hawkey's (2000) findings that senior level students have more interactions with faculty and are more involved academically than first- and second-year students. According to Ann, *"The first- and second-year courses are really just a mass of students and you are just a face in the crowd, and profs don't have that sort of time to commit to each student."*

Some students felt that the size of an institution affected interactions with professors. Heather noted that she was happy that her university was small, which she felt facilitated more professor/student interaction than would be possible at a large institution. She knew of someone at a larger institution who felt that he was just a number.

Providing Specific Accommodations

Professors varied in how they provided accommodations³⁰. With respect to getting a copy of the professor's notes, Carol found that one professor gave her notes in advance of the class, whereas another professor didn't give them to her until a few days after the lecture. She

³⁰ Accommodation, in this context, refers to changes in processes or services required for students with disabilities to access the university environment or to have equivalent experiences to those of non-disabled students.

found that receiving them later, rather than in advance, made it hard for her to follow the lecture.

Sometimes a professor will want to provide more accommodations than the student actually wants and needs. James felt that one of his professors had over-stepped matters by arranging for him to write an exam at the DSO in case he needed extra time. James said that he had not requested such an accommodation and wanted simply to write with the class.

Students also faced situations in which it was difficult for them to get accommodations. As previously noted, Charlie had difficulty with a professor refusing to wear his FM system and James almost had a similar difficulty, though based on lack of information, rather than a disagreement. Ben had difficulty getting a professor to understand that being graded for class participation was a problem for him because of his hearing loss.

Ben: I have had trouble with one instructor. Because we had a group presentation and I got marked down for class interaction and I previously explained my problem. Eventually, it got worked out, but it was a bit of a pain.

Ben felt it was important for professors to provide accommodations but not to give him preferential treatment. He felt that this was generally the case. *"They don't treat you any different. It [having a hearing loss] doesn't bother me too much. I don't really want to be out of place; [I] don't expect too much preferential treatment."*

Hearing Classmates

Students experienced challenges hearing instructors, but they faced even more difficulties hearing other students. Difficulties with hearing peers have been documented in other studies or in commentary related to students who are hard of hearing (Schein, 1991;

Warick, 1994a). The difficulties related to two aspects: first, quality of students' voice, and second, positioning, either on the part of the other students or on the part of the students with hearing losses.

Under the category of quality of students' voices, these students had difficulties with accented voices or voices that did not clearly articulate words and project sound. Gayle noted that she found it "*challenging understanding what a girl in my law class says; she has such a strong accent.*" Kathy noted the following difficulty in her first journal entry:

Kathy: One classmate in particular has been muttering and mumbling in class. Perhaps, they were side comments but clearly, at one point, it was not. I am extremely frustrated because all my courses are with this particular classmate and I am starting to feel it is on purpose.

Difficulties with positioning could take several forms. Gayle noted that she had a hard time hearing the people she sat behind in class, especially when they spoke softly. She said it was "*very aggravating as I cannot hear what is being said; found most often in my history class where we sit in rows.*" Carol noted another type of positional hearing difficulty. She had been standing in the middle of the hallway and realized too late that someone wanted to get by her. She was placed with the awkward dilemma of how to explain what had occurred, while not really wanting to disclose her hearing loss to the students.

Carol: Since I didn't hear them I didn't move and they became annoyed and probably repeated themselves. I was embarrassed when I turned around because I felt like there was someone behind me. If only I had explained then maybe they wouldn't think 'ill' of me – but then do I really need to explain?

Darcy found that when he explained the misunderstanding, the other student responded positively. The situation that gave rise to the misunderstanding was a simple, everyday occurrence that was an all too frequent experience by students who are hard of hearing.

Darcy: A student whom I do not know asked me a question as I walked by, but I didn't hear him and kept walking.... He had a look on his face that said he was ready to challenge me for being so deliberately rude to him as to ignore him. Recognizing this look (I've seen it a number of times), I quickly apologized for not hearing him, gesturing to my ears so as to inform him of my "condition." He smiled, apologized back, and asked me how he could get to a certain building. If I had a buck for every time this scenario has played itself out, I'd still be broke, but it has happened many, many times.

The hearing difficulties faced by Darcy and Carol created tension and feelings such as a sense of aggravation, frustration, or embarrassment. Sometimes, the situation was partly salvaged by an explanation, as in Darcy's case. In other situations, sometimes a temporary solution was achieved, such as when classmates spoke louder, but all too often the students reverted to their usual ways of speaking. Gayle commented on this problem.

Gayle: I ask people to speak louder because I am hearing impaired, and often times people won't because it's not ingrained in them. They don't really think about it. Like practice makes perfect. Because of the fact they don't change, I am not going to continuously hound on it. It's not worth my time. It means it doesn't matter if I don't hear.

Some participants were so shy that they were uncomfortable asking classmates to repeat unheard statements. Ben preferred not to interrupt other students even if he didn't hear them. "I don't like to intrude," he stated.

Although some students let it go when they could not hear, other students made it a point to remind their classmates to speak up. They felt comfortable doing so.

Jennifer: I am assertive. It's okay to keep it up, to keep reminding people, to say "Pardon, I didn't hear that." And I've also been told by other colleagues that in my doing so, having people repeat it, help hearing people learn too. They are hearing it again; they are hearing it in a different way. It's really quite beneficial for a lot of people.

Another strategy was for participants to be asked to repeat unheard phrases. Kathy found that classmates were receptive to repeating their names when they started their group discussion, but she also found resistance from the occasional classmate. In her journal she noted that one particular student in her class was quite negative.

Kathy: I hate to push issues, but a girl in my class continually expresses through facial expression, attitude & body language that it is a nuisance & bother to her that I ask for simple accommodations such as speak slower, don't wave your hands, move something away from my FM mic, etc. I am FED-UP. I don't want to be rude but she is also becoming a teacher of the deaf and hard of hearing. She should have at least a little bit of sympathy.

For the most part, they were unable to overcome the difficulties of hearing their peers by using strategies that they had successfully employed to hear instructors. For example, the student with a hearing loss could choose to sit in close proximity to an instructor to facilitate hearing and lipreading, but that choice may make it more difficult to hear some students in the

class, such as those at the back of the room. However, even if a professor were not involved, it would be extremely difficult for a student to choose a seat that would enable him or her to hear all classmates. Usually, there are just too many students in a classroom to be able to do this and often the arrangement of tables, chairs, and occupants mitigate against visual contact.

Yvonne: I have to be able to see everyone's face which is sometimes difficult and I can get between 50 and 75 percent of the discussion. Like often, I don't know if I'm repeating...if someone has said something before I don't have a clue.

The exception to the foregoing was small, seminar-style rooms; when students were arranged in a circle, visual contact was promoted. Gayle noted in her journal that her instructor was concerned that she was unable to follow group discussions. *"This is true - but hopefully a change in seating arrangement might help."*

Another strategy used with some success with instructors was an assistive listening system. Although technology is available for such systems with multiple microphones, the systems used by students had a single microphone. Quite understandably, students tended to position their lone microphone on or near the instructor. As a result, they could hear the instructor, but classmates' voices were too far away to be picked up.

Finally, the strategy of course selection based on vocal quality was one that students could employ with instructors, but not with classmates. It was impossible to know in advance who their classmates would be and the quality of their voices. Furthermore, they were likely to find that there were some students whose voices were difficult to hear in all classes. Course selection based on type of class was likely to be a more successful strategy, namely, to avoid taking classes involving a lot of classroom vocal participation altogether.

This was a strategy that did not always match the student's preference.

Carol: In group discussions I learn more from them in terms of different opinions and give me a chance to participate. It's difficult to follow along in group discussions and know what I am saying is actually relevant whereas lecture instruction type of courses I can just sit and listen and not have to adjust the different speakers and be worried about who is speaking. I really like to take more group discussion courses. If I had to choose what is best I probably stick with the instruction kind of lecture courses.

Discussions

Being part of the conversation was an issue for most of the students taking part in the study. Lack of hearing means not only missing what is being said but it means missing out on the opportunity to take part in the discussion. Participation in class discussions requires hearing. Mainstreamed students who are unable to participate in classes have been described as visitors (Antia & Stinson, 1999; Antia et al., 2002; Stinson & Antia, 1999; Stinson & Liu, 1999; Stinson et al., 1996). These researchers found that although students who are deaf are mainstreamed, they are not integrated, that is, they are not part of the classroom community in the sense of being able to fully participate.

One of the problems faced by students who are deaf is a delay in receiving information due to the sign interpretation process. As a result, "conversational delay" occurs (Antia et al., 2002; Foster et al., 1999; Stinson et al., 1996). According to Secord (1999) and Warick (1998, February) students who are hard of hearing also experience conversational difficulties due to a delay in hearing and processing sound. By its nature, being hard of hearing means that students will hear some of what is being said but not necessarily all of it. As is typical when a

person does not hear everything that is said, he or she conjures up what might have been said from all of the available cues, verbal and non-verbal. This type of mental processing may result in a delay in comprehending what was actually stated. The result is that the person has some difficulty when jumping into the conversation.

Questions about this issue were posed to students in my study. When asked about timing in terms of the sequence of jumping into a conversation, students noted that they were at a disadvantage. Yvonne said she has to pay attention to find the right moment to jump into a conversation. *"Sometimes, I have to wait for an actual quiet when nobody is talking, then I can jump in."*

Conversational lag means that students who are hard of hearing have to work at timing themselves to get into a conversation. They can find that they are too late, like James who stated, *"I have to time it really right. When two people are talking at the same time I feel like I did it too late or whatever. I should have just let them go."*

Often times study participants simply did not hear what other students stated, and they had no reference point for getting into the conversation. This problem was most predominant in group discussions and led students to feel isolated from classmates.

Carol: I met with my tutorial group today as we have to present our research in 2 weeks. They both were discussing something that they were going to do together and then asked for my opinion. When I said I didn't know what they had been talking about, one of the girls gave me a funny look as if I was intentionally not paying attention. I explained to them that I was hard of hearing but I don't think this helped them to understand.

As indicated by Carol's experience, students who are hard of hearing may be evaluated negatively by other students if they can't respond as others usually expect.

Participation carries risks as Darcy noted in his journal:

Darcy: I raised my hand to comment on a point I thought was worth mentioning, that the prof had yet to speak about. It turns out that the person who spoke just before me (other than the prof) had just spoken about that very thing; the reason I didn't know about it, other than not hearing it, was that the prof didn't comment on it, but merely said "mmm-mm" or some such. There was a bit of snickering from the back.

Darcy asked permission to skip the classes with group discussions, but the professor felt he could not do that because that would mean missing more than the discussions. *"He did promise to try to recap whatever was said, but, and I can understand this, there is simply too much said to repeat."* Two weeks later when a group discussion was scheduled for the class Darcy skipped the class. *"I don't feel good about it, and I hope this doesn't become a habit, but I really dislike the group discussions,"* he wrote in his journal. He stayed home and read the play that the class was discussing.

Charlie felt that a different standard than that used for other students was applied to his participation. *"I am very sensitive to the fact that I'm hard of hearing and being judged differently and that bugs me."*

He noted that he had difficulty jumping into the conversation and when he got the floor he used the speaking occasion to full advantage. The opportunity to speak may not come again.

Charlie: I'm kind of ignored because people don't like to accommodate me. When I do participate, I express two or three opinions. Usually, they don't know how to respond to me. I'm treated as if I'm stupid. I do jump in but weigh pros and cons if it is worth it.

Some students required external help getting into the conversation. Even assertive students such as Yvonne found that their participation was easier when there was a discussion leader and the discussion was organized. Contributing to an organized discussion was when hands were raised to request the floor. Yvonne expressed a preference for this approach, recognizing that she was going against a norm.

Yvonne: Usually I just raise my hand. I know it's so high schooler; most people don't raise their hands but I do. Not just to be polite but because it's so much simpler because usually when I do try to jump in they don't hear me.

One other way of dealing with discussions was to jump into the conversation first or to initiate the topic of conversation. That way the student avoided having to deal with both the content of what was said previously and the physical challenges of hearing other conversationalists. This strategy was used separately or in conjunction with dominating a conversation.

In fact, some students mentioned that they were the most vocal in their class and tended to lead discussions. Heather noted that she was aware that she could be too verbally active so she consciously tried not to over-participate. Because Yvonne tended to be active, sometimes teachers told her, "Okay, you have already said a lot, so let somebody else talk for a while." The tendency to lead or control the conversation was, in fact, one of the strategies that students with hearing losses adopted to try to be part of the conversation. Leaders of

conversations are in control and are able to manage both the content and processes of exchanges.

Practicum Situations

Two students found hearing in practicum teaching situations posed some challenges, but felt their experiences were positive. Ann found her students responsive to her communication needs.

Ann: Throughout the years of my hearing impairment, I have encountered much impatience dealing with my inability to hear all words correctly. It wasn't until this year, working with a third grade class that I met such incredibly patient people. My students could repeat their sentences five times over without a sign of annoyance.

Ann noted that there was one downside in that she found class management more difficult because of difficulties hearing which student may be disruptive in a class. *"To compensate I relied on my eyes and tried to get in the habit of scanning the room every thirty seconds."*

Sarah was teaching students with hearing losses so felt she was able to be a role model to them and demonstrate good communication practises. At the same time she felt it would be helpful to her if there were sound systems particularly developed for teachers to hear their students. She felt most ALDs are geared to users being on the receiving end of the communication, not in the dominant communication role.

Acoustical Environment

The problem of hearing in a classroom is frequently exacerbated by the acoustical condition of a university classroom. Many educational and university classrooms have poor acoustics (Hodgson, 1994; Hughes et al., 1995; Ross, 1992; Schein, 1991).

Classroom acoustics were terrible, students who participated in my study unanimously stated. As a result, they were careful about where they sat in a classroom, usually selecting a seat in the first two or three rows. They avoided facing classroom windows that could bring in outside light, but also tried to avoid sitting next to a potentially noisy hallway; in some cases they took the lesser of the two evils. Also, some students made decisions about which classes to take based on avoiding acoustically-poor classrooms.

Mark spoke of the conscious selection of courses based on the size of the classroom and the vocal abilities of the professor. At registration time he got a list of courses with the names of the teachers and the room numbers for the courses, and then he chose courses based on the best fit for him. Mark stated, *"I know which rooms are good because I have been there for three years now. And I know which rooms are not good."*

Sometimes students put up with an undesirable classroom if they perceived it was for just one class. Gayle noted that *"having a big airy room with high ceilings doesn't call for a sound listening environment, particularly in my instance – fortunately I only have one class in a room like this – my practicum class."*

Approach to Courses

In this study, I found that the nature of the participation of some students with hearing losses in university differed from that of their hearing peers. Some students with hearing

losses differed in their approach to program and course selection, as well as in the number of courses taken. Each of these topics will be discussed in turn.

Choice of Program

Three students were in a program for training teachers to work with students who are deaf and hard of hearing. They expected that the program would be accommodating of, and sensitive to, their hearing needs. They felt that the program did live up to these expectations. One person who became hard of hearing in later life was asked if she would have hesitated enrolling in a program because of her hearing loss. Her response indicates that her hearing loss may have been a factor in her choice of program.

Kathy: I don't think it would have stopped me from registering in this particular program because I expect people to understand because that is the field we are entering. I would probably hesitate to register in law or any other faculty because for the amount of information coming at me. I prefer to be in something that I had to rely on my hearing a lot less and have people understand more. Not that the individuals in other faculties are less sensitive but they are less aware which makes them essentially less sensitive.

Selection of Courses

As previously mentioned, several students noted that they selected their courses based on room location, size of the class, and the vocal qualities of the instructor for the course and the type of professor. Kathy said that she found out the names of instructors from her Academic Advisor and then decided which courses to take.

Kathy: I also ask her other questions relating to Profs and how good they are, if they are the kind of person who can see my changes or see my hearing loss, if they are adapting. That's what helps me in all those areas because I can better choose profs. That will suit my need more, and I have been able to do that for the most part.

One student was in an education degree program for teachers of students who are deaf and hard of hearing where she did not feel she would be faced with difficulties understanding instructors, but, if given the option, she would make course decisions based on the instructor's vocal qualities.

Jennifer: Yes, if I heard a teacher had a big moustache and beard and had an accent or anything, and then I say, "I am not going there." This program I assume everybody would speak very clearly because it was a deaf and hard of hearing program that I shouldn't have any difficulty.

As mentioned earlier, several students found lecture format classes easier to hear in than discussion group classes, although this may not be their preferred learning approach. Even if they wanted to select courses based on pedagogical style, there was a limit to how much class change students could make based on hearing factors. Preference for a particular subject matter might be more important than the issue around hearing.

Gayle: Maybe in some people's experiences they really found the difference between say the Psychology class and their Art History class, and it so happened all the Psychology professors were speaking softly so they took Art History. But I don't think that really plays a part. From my experience it didn't.

As well, some courses may be required or are team-taught by several instructors, or the student may feel that having a rapport with the instructor outweighs other factors. For example, James found himself in a class with a professor who was difficult to understand. He considered dropping out of it but stayed on.

James: I had a pretty good rapport with my math teacher. We got along and even though I didn't understand some of the things during class, I felt very able to go in and see him and ask him about the questions. That more than made up for it.

Darcy chose to try a different section of the same class when faced with difficulty in the first class. When several sections are offered, that may be possible to do. Darcy stated, *"In French I had that. The first French class I walked into, the professor spoke really softly so I switched to another professor. He spoke louder."*

However, switching to another section may not always solve a student's problems. Darcy noted that he continued to be distressed in his French course.

Darcy: It was causing me a lot of mental anguish...a lot of headaches. I was starting to berate myself for not learning the language and the classes were just horrific. For an hour and a half I had no idea what was going on. I was blind as well as deaf in terms of functioning. So after one particularly bad course I just went home, got on the Internet and de-registered myself from the course which made me feel quite bad because I've never dropped out of a class before and I've never quit anything in my life before because I thought I would fail. I didn't want a failure on my record and I thought that was going to happen.

The improved listening situation did not solve Darcy's problems with the French course. He was going to seek an exemption due to his conceptual difficulties with language learning, which may have been caused or exacerbated by his hearing difficulties.

Distance Education

Two students, Charlie and Rachel, had taken distance education courses at various times because it reduces the stress of hearing. For one of these students, the fact that she lived a considerable distance from the campus also factored in her decision to take distance education courses. Charlie, who had taken a distance education course at his previous university as well at University Y, added that he liked distance education courses because he could go at his own pace. As well, distance education courses require a lot of writing and he writes well; as a result, he stated that he tends to get good marks.

Despite its benefits, distance education classes involved hearing difficulties around use of the telephone and receiving materials in accessible formats, such as captioned videos. Rachel found that for one of her courses she could not hear the instructor during teleconference broadcasts. She requested information in writing but the instructor refused and, consequently, she failed the course.

Rachel cited another difficulty in a journal entry, namely, getting a responses to her queries, whether of an academic or administrative nature.

Rachel: My research report assignment for 301 was due on November 27, as well as my summative report. I also had to complete my final paper for 452 and it was due on the same day. Because of my difficulty, I called my Instructor... to ask for an extension of 1 week. I left 4 messages in 7 days. 3 were verbal and 1 via fax. She did not return my messages. That does not surprise me. They usually never do.

Most of the other students did not express a strong interest in taking distance education classes. Most of them cited a preference for being part of the regular classroom learning experience.

Reduced Course Load

Several students made a point of taking a reduced course load so that they would have sufficient time to devote to their studies, taking into account the extra time required for classes to go over and ensure that missed content was picked up. A number of students stressed the importance of taking classes at a pace that allowed them the time needed to devote to the accommodations required and to simply keep up. For example, having notes taken by someone else requires extra time to read them. Having a tutor takes more time. Reading and writing might all take a little longer because of difficulties related to lack of hearing (Rodda & Hiron, 1989).

Sometimes it took a negative experience for students to realize that they needed to take a reduced course load. Yvonne found this to be the case after she did not do well in a couple of semesters.

Yvonne: I didn't do well in two particular semesters, my first semester here and the first semester of my third year, which were difficult ones for me so I had to drop out of some courses. I am no longer taking four courses a semester. It's too much for me so I am down to three. It will take longer but I will get better grades that way. Kind of makes sense for me to take it at a steady pace instead of trying to rush and finish it all up.

Half of the students took a reduced courseload. Darcy said one piece of advice he would give other students is: *"Don't take on a full course load. To stress yourself out - it's not worth it."* Carol said she was relieved that she followed this advice. Yvonne had not started with a reduced load but after she failed a class in her first semester, she realized that she needed to scale back. Ben stated that for him taking a reduced course load meant that he had *"a little bit of extra time, so I can do some extra work. I do a lot more reading just to keep up."* For Jennifer *"a lighter load lessens the stress."* There is extra strain just from having to hear and compensate for not hearing, she explained.

Academic Matters

Academic Advising

Academic advising is stressed as being important to the retention of post-secondary students (Crockett, 1985). But just as other studies (Andres et al., 1996; Guppy & Trew, 1995) have reported mixed experiences with academic advising, so, too, did the participants in my study. This is not to suggest that academic advising is not important. On the contrary,

Charlie's experience bores out its importance. A month after he started the term, he was advised to switch into a new set of courses. The late start almost derailed him.

Other students had more positive advising experiences than Charlie. Several students spoke about obtaining advice in planning their schedule of courses to ensure that the required courses were being taken and that sufficient credits were being amassed for graduation. In some cases, students went to the same advisor; in other cases, they saw whoever was available from the faculty advising office. One student got the information from the Registrar's Office. Those without a declared major felt at a disadvantage in getting academic advising; they were not likely not to have the same contact.

Several students were aware of advising services but did not use them. Rachel said that she handles her course schedule herself. *"I just do that on my own,"* she stated. Ben said that *"they have an academic advisor in the Faculty; I don't keep in contact with them."*

Gayle experienced difficulties getting in to see an Advisor at University Z that she attended before going to University Y.

Gayle: I can't tell you how many times in University Z that I went to go to talk to an advisor. I was faced with the sign that said 'Come back another time' and I didn't declare my major until the end of third year. It took me a long time. Obviously it could have been done a little bit earlier.

Some of the students are part of a cohort of students who are taking a graduate program which specifies course requirements. They have a program advisor and had fewer program difficulties than other students.

Only one student, Mark, referred specifically to asking his advisor for hearing advice. Besides being concerned about course requirements, he was concerned about how his professors would respond to him as a student with a hearing loss.

Mark: I also asked her [his advisor] other questions relating to professors and how good they are - if they are the kind of person who can see my hearing loss, if they are adaptable. That's what helps me because I can better choose professors that will suit my needs more and I have been able to do that for the most part.

Commitment

Students' commitments or motivations to higher education are important factors influencing retention (Tinto, 1982). Finishing a university degree program requires a considerable amount of effort and, therefore, commitment to the goal of university completion (Hackman & Dysinger, 1970; Tinto). It also is influenced by the nature of the experiences students have while they are students; if these are negative experiences, students may withdraw (Terenzini, Lorang, & Pascarella, 1981; Tinto).

Students were asked to rate their level of commitment to university on a seven-point scale with one representing the low end of the continuum and seven the highest end. Only two students did not say that their commitment was at the highest level, a 7, on a seven-point scale. One of these two students would have given a 7 instead of a 5 rating if he could have attended a university closer to home, which would have abated his homesickness. The other student selected a 4.5 rating, citing financial difficulty as possibly influencing her level of commitment.

The degree of commitment did not appear to be related to difficulties experienced in university nor to the students' grade point averages. However, the level of commitment may help students deal with difficulties encountered. Carol felt that the high level of commitment was necessary to overcome the difficulties she had experienced. *"If I was not committed then there would be difficulties that would overrun my commitment. If I don't have a commitment then the difficulties just override that."*

Reasons for the level of commitment varied for students, from being motivated to get the degree, to a love of learning, to being content with university. For example, one graduate student stated that she was committed to her present institution because she was not able to transfer credits elsewhere and so she will complete her degree at the institution. She was planning to do a Ph.D. elsewhere. Another student was one course short of graduation; this meant that the commitment was only for a little while longer.

James is an example of a student who, despite being homesick, was committed to continuing in university because of the positive experiences he had had. He was academically integrated. James stated: *"I'd like to stay. I like the courses. I like my professors and I like my residence. I would say I am committed to being here and I would like to come back next year."*

The nature of the institutional commitment to students affects students' level of commitment. Tinto (1982) addressed this issue when he explained that some students may depart from university because of the nature of their university experience. As noted by Tinto, "such departures are more a reflection of experiences following entry" than predispositions of the students (p. 35).

As discussed subsequently, three students in my study could well have been drop-out statistics due to their university experiences. Their retention was due to extraordinary intervention; their own commitment to university was a factor, but would not have been sufficient without substantial intervention.

Rachel was one of the three students who had a difficult time with her university. The event that almost led to her dropping out was that the Faculty had not registered her in classes. She said the Faculty had committed to do this based on a fax she sent because she could not register by telephone. Faculty members told her they had not received the fax. To resolve the difficulty, she had to make several long distance calls and had great difficulty following the automated voice system and reaching people. Then, she ended up being listed as registered in two courses when she was in five courses, and the bank called in payment of her student loan. She wrote the following in her journal:

Rachel: Because record services disagrees, I have to start making my student loan payments, even though I am a full-time student. I GIVE UP. Sometimes, I just think there is no hope or no point when you are a student with a hearing disability and you are just trying to get through life and educate yourself to fully employ yourself. I am not asking for special privileges, I am asking for a little help with the things I can't do. None of this fiasco would have occurred if I wasn't hearing impaired and the X Department did not forget to register me because I can't register myself, because I can't hear TELEREG.

Rachel was close to quitting at that point. However, she persisted because of the help of an advocate for students who are deaf and hard of hearing. The advocate worked for an agency that was external to the university. As well, Rachel was near graduation. Asked where

she would put herself on the seven-point scale, after having got registered, Rachel stated, *"Right now I'd say 'seven.' I'm right at the end of the tunnel."*

Another student, Jennifer, had also been on the verge of dropping out because of a negative experience during her first semester where she took two difficult courses, barely passing one and failing in the other course. Even so, one of her professors took an exceptional interest in her, and without her intervention Jennifer would have dropped out of the program.

Jennifer: I was seriously thinking of not coming back. It was such a devastating experience for me. I think because of the persistency on the phone and just hearing that they really wanted me. "Please don't quit, come and talk to us." . . . a couple of things that one of the instructors said on the phone, almost like a guilt trip, manipulative, that made me hang on.... through the support of my two advisors, I felt like they rolled out the red carpet and they said, "What will work for you? Let's work out something that will work for you."

In Jennifer's case, her advisors not only encouraged her to come back but they modified her program so that she could do it on a part-time rather than a full-time basis. As a result, Jennifer persisted; as of this writing she has successfully graduated.

Charlie was the other student whose initial experience at University Y was almost a disaster. Only direct intervention by the Disability Services Coordinator at his university, as will be discussed in the Disability Services Chapter, prevented his drop-out.

The above three students are examples where commitment alone would have been insufficient to remain in university. The importance of institutional behavior and commitment, alongside individual commitment, are underscored by these examples. These situations

illustrate that student experience is a dynamic tension between agents (students), players within the institution and the university system, in keeping with the agency-nexus concept.

External factors are part of this dynamic and influence the degree of commitment an individual has to continuing with university. Financial investment is one of them. Darcy noted that he had already invested a lot of money and time, and his family, a wife and two children, was depending on him to graduate. He said he was “\$35,000 in debt. *I’ve mortgaged my future. Come hell or high water I’m going to finish with at least a Masters.*”

There can be a disability factor that affects commitment. Many students with disabilities, including those who are hard of hearing, require a longer period of time to complete their studies than other students. A couple of students participating in the study noted that they were committed even though they were not doing it as quickly as some other students, some because their disability required that they take fewer classes, and others because they needed to balance school with other parts of their life.

Gayle: I persevere for sure. The first year I tended to stay up all night and make sure my assignments got in on time but now it’s balanced, the health and school together. So if it’s going to be late one day because the way things are going, I need more time, then I’ll just do that. I don’t tend to pull an all-nighter as much as I used to.

Yvonne had thought about taking some time off and travelling instead of going straight to university from high school. She thought of going overseas, then coming back to university, but that was a temporary wish.

Yvonne: I think that was a major thing for me to realize I want to finish university. May take longer than usual for a lot of different reasons but that helps a lot. Instead of feeling I have to work at the same pace like other people because I have friends who do five courses a semester but they have no life.

One student said that his commitment fluctuated depending on the time of the year but even at his worst time of the year, he placed his commitment at 6 out of 7. Level of commitment is likely high when an individual sees completion in sight. Heather will graduate with her humanities diploma in June. *"It is 100%,"* she said of her level of commitment. This finding may possibly be true for all students, not solely those with hearing losses.

Academic Performance

The commitment to university of the participants in this study seemed unconnected to their grades. The range of grades was from C to A, but level of commitment was not any lower for students receiving lower grades than for their peers who received higher grades. The student with a C average was just as committed as the A student.

Dissatisfaction with performance also might not mean less of a commitment if the student has sufficient hope to expect that he or she can improve. It can serve to heighten the student's commitment to improve performance. Several students in my study thought that they could be doing better. Carol, who expected a grade drop from high school where she got As and Bs, was getting marks in the C+ range. *"I am discouraged by some of the marks but I think I have been given enough encouragement by tutors and professors."* The encouragement appears to be helping her deal with the change in grades.

James, whose grades have dropped from As to Bs, would like to be doing better.

Darcy, who got As in college, is also disappointed with getting mostly Bs.

Darcy: At first I thought it was just adjusting to a new school, figuring out how things work in a big university, but after being here for long enough and still getting B in the summer, I am a little disappointed in myself. I am not doing all that well this semester.

If students' grade expectations match results, they are likely to be content (Bean & Bradley, 1986). This was the case with several students in the study. Mark was getting mostly Bs in university, whereas in high school he often got Cs. *"I have certain standards and I guess I have been meeting most of my standards which is good,"* he said. He has one course in which he is not doing well, but accepts that this sometimes that happens. Heather described herself as a *"B student"* with a dream of getting an A+ one day. The second time I interviewed her she had achieved this dream and was ecstatic. Ann maintained an A- average, both before and after getting hearing aids. With her hearing aids, she said:

Ann: Like it's easier now so I don't have to work as hard. So that's where the difference is. The marks have kept the same. If I had worked as hard as I did before without my hearing aids, with my hearing aids I would probably have got higher marks. Definitely. Like sometimes I don't catch important details so there would definitely be an improvement in certain situations.

Jennifer felt that her grades were affected by her hearing loss because of weak writing skills. Darcy was concerned about how he would do in French, which he had to repeat.

However, some students felt that their hearing loss did not affect their grades. Sarah, whose grades were As, said her *"hearing loss had nothing to do with my grades."*

Climate

There are two kinds of classroom climates for students with hearing disabilities. One is associated with "chilly climate," which might be experienced by any student with a disability, and the other relates to the acoustic environment, which was previously discussed. With respect to the overall climate of the institution, students had a variety of responses. One was that students did not feel too strongly about the climate at the university; it seemed to match their expectations.

Charlie: OK, maybe it could be a little bit better, but most people don't notice your hearing aids and until they notice they just treat you like anyone else. They don't speak up or anything. I don't think people are ignorant when they talk to you, but they are only ignorant in the sense that they don't know what you are having to deal with. They don't know whether they have to face you.

Another student viewed the climate at his university as being what he had expected but not exactly compatible with his values. Asked about the university climate in relation to his hearing loss, Darcy responded:

Darcy: It's OK. It's about what I expected. I find the expectations here are a little bit higher than they were elsewhere, but I don't have anything to say in regard to my hearing. In particular, the thing that struck me the most is this campus is not very political and yet is still way too political for me.

Darcy noted that there was an expectation that because he's involved with the campus disability organization that he would be committed to certain issues about which he does not feel strongly.

Darcy: A lot of people are very hung up on proper words and improper labels and the elimination of labels and all that kind of stuff. And they really expect me to be gung ho about eliminating all these labels and expectation.... Other people in general, they seem to have these expectations that I will be much more activist than I am and seem a little bit disappointed when I am not.

Ann discussed culture in terms of the nature of University Z and felt that it suited her needs exactly. She said she really loves the university. *"The environment is really laid back, casual, really relaxed, slower pace, less competition. Those were things I needed."*

Rachel recounted her negative experience with university. She found a mismatch between her own experience and the published mission statement of her department.

Rachel: I feel very upset that I am provided no support as student with a disability. The School claims in their mission statement as "committed to empowerment based on equity, community change and adult education principles." [University calendar]. It goes on to say the school seeks to "provide accessible and flexible [name of faculty] education to students who might otherwise be unable to obtain a degree because of family responsibilities, cultural differences, work, poverty, DISABILITY and geographic location." Yet the School does nothing to bridge the gap for people with disabilities who are having difficulties in dealing with the powerful bureaucratic institution known as UZ.

As Rachel's journal entry shows, her disenchantment with the university was all the greater because she felt she had been led to believe that the nature of the university would be

different from what she had experienced. She felt that practises did not match the School's published statements.

Students' Strategies for Academic Success

This chapter now turns to look at the advice students offered others based on their experiences. To improve their performance and the quality of their academic experience, students offered the following suggestions for other students. Many of these are applicable for all students, regardless of hearing levels.

Time Management

Keep On Top of Things. Students emphasized the importance of having a manageable workload and keeping on top of things. This means not missing classes, not delaying assignments, and not cramming for exams at the end of a term. It means being very disciplined and scheduled about one's activities. Ben advised, "*Stay on top of everything. If you fall behind it's really hard to catch up, because you have to do more than other people.*"

Ben: Don't miss classes. You are missing enough already. You can't afford to miss much more. I think it depends on the subject, like science - it might be easier to keep up the structure. When you are in Arts courses, it's more theoretical. Maybe you have to be there all the time because you are trying to understand the theory. If you miss a class, let's say physics, you might be able to go back and say this is what we did.

Another student put it this way:

Gayle: Focus on what's required at the time, and just stay with it...go to classes, stay up on the readings but if it doesn't happen [not able to stay up with the readings] then just let it go. Don't dwell on it. Move on, because the pace of university is so fast that you just have to let that other material go and go to what is required of you at that time.

Take Prerequisites Early On. By taking prerequisites early on, some students felt they got them out of the way and could enjoy the rest of the program better. They were free of worrying about taking certain prerequisites and could enjoy taking more electives that suited them. Darcy found that he left taking French until later on and it was proving difficult to tackle. *"Don't leave difficult subjects to the end. Get them over with first,"* was his advice.

Make Time for Breaks and Sleep. Jennifer said it was important to her to take breaks from studying and to get a good night's sleep. Time management requires self-care.

Jennifer: When I allot myself study time, I always make sure I schedule a lot of breaks in there because I am not a person who can study, study, study. I can only read or get intensely involved for about one hour maximum and then I can feel fatigueness come in. Then I take a 10-15 minute break. Sometimes, I just say, "Go for a power walk, 20 minutes. Power walk outside." I need breaks. I cannot strain myself. I am kind to myself. I say, "This is all I can do today. Go to bed."

Study Strategies

Choose Paper Topics Of Interest. Gayle said one of her strategies is to select papers on topics she feels strongly about. She recommended this strategy to other students.

Gayle: Choose topics that you are really interested in. I find to write effectively you need to really be passionate about the topic in order to really pull out a good mark. Usually there is that flexibility to gear your topics to your own interests particularly in the second, third, fourth year.

Talk with Professors. A key strategy for most students was talking with professors. Several students stated that they ensured that they made a point of talking with their professors and seeking their assistance. Mark was one of them. He stated, *"I'll go to them and I'll just ask them questions about the lecture from the last week and sort of ask them to clarify something."* He made sure that he paid attention in class and asked supplementary or additional questions based on the content in the class. Mark noted that professors were more apt to provide additional assistance when they saw that he had been attentive in class. Ben said he also talked with professors if he missed something. *"Usually, it works out just fine. Most people are fairly accommodating."*

Pay Attention to the Verbal. Several students cited that a key difference between university and high school is the importance of the verbal information in the university setting. Carol noted that in high school she could rely on the textbook but found that in university the information conveyed during the lectures was of paramount importance. As noted in the Transition Chapter, Carol had to modify how she learned. She had to change from being a learner who focused on written materials to one who places more emphasis on verbal information.

Read a Lot. Several students felt that reading was essential to developing their knowledge base when they were growing up, especially because they missed a lot of verbal information. Darcy stated that he continues to read a lot; he advised others to do the same.

Develop a Mental Picture. Ann has found it useful to visualize what she is learning or relate it to a personal experience. That way it sticks in her mind. She stated, *"Everything that I learned I would try to think of my personal experience that would fit in or create a visual image if it was something mathematical and physical."*

Heather noted that because of her hearing loss she had developed the ability to concentrate and to remember things. *"I have to have a really good memory because lots of times I don't take very precise notes."*

General Habits

Work Hard. Several students talked about the importance of working hard. They recognized that a hearing loss means working even harder because of the extra demands of hearing for them.

Jennifer: I may not work as hard as my colleagues in the sense of staying up all night, but I think I do work as hard, if not harder, in the straining to hear, be there, and be a part of. It's a different kind of working hard, mental hardness.

Take Full Advantage of Supports. Several students advised that it was important to make full use of accommodations and services available to students with a disability. This includes making contact with the Disability Services Office and being in regular communication with their staff. Charlie noted the latter point when he advised, *"It's important to keep in touch with the Disability Services Office."* Sarah also had some advice for dealing with disputes because of the difficulties she had in getting services: *"Make sure you have a paper trail."*

Establish Good Rapport With Others. Heather took a careful approach to relating to her professors and her classmates. Conscious of being an older student, she took care to fit in with her younger classmates.

Heather: I don't try to give any advice and I don't try to be their age. I don't think you should agree with everything the professor says but it is possible sometimes to antagonize the professor. I don't think that works. I don't think it helps to cause problems. I haven't done that.

Jennifer stated that she is careful about how she deals with situations in which she doesn't hear. Even when she doesn't hear she doesn't always speak up, although she said she's not shy about doing so. She noted that another student, who was also hard of hearing, took was too aggressive in her manner of dealing class hearing difficulties, and so she didn't want to do the same.

Summary

Students with hearing losses generally have to self-disclose themselves to instructors to receive needed accommodations and considerations. Because a hearing loss is invisible and students are reluctant to be perceived as being "other" (Israelite et al., 2002), the step of self-disclosure was difficult for some students. Disclosing and requesting accommodations was eased when the students felt instructors were approachable.

Often, instructors were accommodating and responsive to students, but not always. There were situations where instructors forgot to speak directly to the class or to rephrase comments from the class so that students had access to all of the information in the class. Students understood that it was difficult for instructors to change their communication style

and, so much so, that they internalized feelings of frustration and anxiety and accepted that that was the way it was. Students were less accepting in overt cases of a refusal to accommodate students, such as when instructors refused to use a microphone, to adjust participation marks, or made admissions decisions based on hearing-related criteria.

The agency-structure nexus enables us to understand the dynamics faced by students who are hard of hearing in the academy. Instructors, students and administrators have defined roles governed by expected behaviors and norms. Therefore, it would take an extraordinary situation of overt lack of accommodation for students to feel that it was their right to expect access. The usual day-to-day way of functioning would seem to be the norm and be seen as the student's responsibility, not as a set of circumstances that should and can require institutional change. Even overt situations of discrimination may not see redress, unless other parties of the institution became involved and changed the established norms. This was the case for Jennifer who would have dropped out of university had the program advisor not restructured it so that she could do it in a way that gave her some hope of success, namely, on a part-time basis. The fact that this happened and that other dramatic changes were made for other students demonstrates another aspect of the agency-structure nexus, and that is that change is possible within the system if the actors move together to make changes.

Nowhere were the dynamics of agency-structure more evident than in the classroom. Because of their hearing loss, students sometimes had difficulty hearing certain professors, and invariably had difficulties hearing other students. It was the difficulty hearing other students that, sometimes, limited their classroom participation. In this sense, many of these students were "visitors" to the classroom, a phenomena described by Antia et al. (2002), Stinson and Antia (1999), and Stinson and Liu (1999). A visitor is not fully integrated into the

classroom community in terms of participation, although in this case the analogy does not apply to doing course requirements, which students were expected to meet just as were other students. The visitor analogy, though, has utility in explaining the dynamics affecting classroom participation for students who are hard of hearing.

For the most part, the visitor role was not altered to permit the full participation of students with hearing losses. Few strategies were identified, other than rearranging classroom position. This suggests that the dynamic of the situation requires that students fit into the way things are, and given that this is part of the identity of being hard of hearing, students tended to do that in order to be like all other students, not like an “other.” As well, the dynamic for instructors appears to be that accommodations will be provided to the extent to which the accommodations do not require major changes. This is in keeping with findings by Lesyer et al. (1998) about the extent to which faculty may be willing to make accommodations.

The students taking part in this study were persistent and committed to their studies. They also had insights into their situation and a finely developed set of strategies for being successful. They offered a range of suggestions for other students, many of which were related to their own effective management of their hearing loss. Effective management involved several components: selecting courses carefully, ensuring a reasonable course load, contacting professors when academic assistance was required, and taking advantage of university supports. Little advice was given about utilizing peer supports, which was perhaps not surprising because of the difficulty students who are hard of hearing encountered with classroom participation. This dimension, as well as other aspects of social integration, will be explored in the next chapter.

CHAPTER SIX

SOCIAL EXPERIENCES

OF STUDENTS WHO HAVE A HEARING LOSS

One of the research questions of the study focused on the nature of the social experiences of university students who are hard of hearing. The retention literature has suggested that both academic and social integration are important to the retention of students, although they are not of equivalent importance (Tinto, 1975, 1982, 1987). Social integration is of lesser importance, but can still be a factor in students' retention. The level of social involvement and the degree of congruency between the individual and the social environment can determine if there is a "social fit" between the individual and the institution (Tinto, 1975).

Formal and informal peer group interactions and semi-formal and informal extracurricular activities comprise a social system in a post-secondary educational institution (Tinto, 1975, 1982). Semi-formal extracurricular activities include participation in campus organizations, sports organizations, and organized campus social activities. Informal activities would be those that are not predefined, such as going to a bar or having lunch with other students in the cafeteria. Informal peer interactions could also take place in hallways, classroom corridors, and stairwells or paths between buildings.

Activities are measures of social involvement but do not constitute its entirety. Social involvement is more than a series of activities; it constitutes relationships with other persons and the sense of being part of a campus community. It relates to the sense students have of belonging and being welcomed, and so it is not only an issue of individual engagement, but

also of institutional engagement. In this chapter the extent of the social involvement of students who are hard of hearing is explored.

Generational and Geographical Differences

Bean and Metzner (1985) and Metzner and Bean (1987) found generational differences between students in their social engagement in post-secondary education. Younger students were much more socially engaged than older students. For older students, this did not matter because their prime reason for being at university was the intellectual activity, not social activity.

There were marked differences in the social patterns of the younger and older students participating in the present study. All of the six students under 24 years had an interest and involvement in campus activities. All of them were involved in sports or physical activities. Four of them expressed an interest in dating activities.

For the young students in this study, a social life was one of their main reasons for attending university. Social activities were not viewed as being peripheral to academic studies; they were viewed as an important part of the university experience. Mark noted, *"I have tried to bring in social things, club things, sports and everything else to hopefully improve my post-secondary education."* His motivation for such involvements, however, was not solely for personal development. To him, a well-rounded education is also an important step for the labour market.

Mark: The reason why I am in business school and the whole idea behind it is, when employers want to hire people or new graduates, they want to look at people who have other things also, and not just have school.

Social involvement is also a developmental phase for younger students. They may feel some peer pressures and societal pressures to have social connections. If they are hard of hearing, they will have additional constraints already described in terms of being in environments, which make forming relationships doubly difficult for them. They may not have a lot of experience at forming attachments, partly due to young age and partly because their disability may have some impact. Furthermore, they may experience academic pressures all the greater because the university is a new and unknown learning environment for them, and very different from high school.

Yvonne's story illustrates what can happen to a young student with a hearing loss at university. Yvonne did not have much of a social life during her first two years on campus.

In her first year she lived off campus and spent most of her weekends visiting her aunts. The next year she moved into housing on campus but still went for weekend visits to her relatives. *"I didn't interact very much with people on my floor. I pretty much kept to myself,"* Yvonne noted. She did have one friend and they *"did pretty much everything together"* but Yvonne came to feel that it was a one-way relationship and that the other person was using her.

Besides her lack of a social life, Yvonne was struggling academically. Her parents were both teachers and she had always been a strong student who got high grades. Nevertheless, she was tired of working so hard and she slacked off at university. At the same time, she was not involved in campus activities. Receiving a failing grade in a class in her first year was a huge blow to her self-esteem. Poor academic performance, combined with her lack of social life, put her into a state of depression. She received counseling and scaled back the number of courses she took. By her third year on campus she had adopted a different

approach to university life, whereby she sought to take a reduced courseload and engage in activities.

In her residence, Yvonne stated: *"I started bringing myself out, trying to get more interactive with other people, not always go to my room and stay there."* As a result, she found people in her residence to be much friendlier than previously. She also became involved on the campus paper and got a part-time campus job. She looks back and finds the change remarkable. She has a small group of close friends and a lot of acquaintances who regularly greet her on campus.

Yvonne: The different social settings I place myself in have allowed me to enjoy and be well balanced, and release a lot of stress because you are with friends. You can have fun, rant to people. This is what university is supposed to be like. I have finally figured it out - clued in that social things are just as important as academic things I was so obsessed about.

Although James, a first-year student, did not go as far as Yvonne in giving equal importance to the social side of university life, he felt it was important not to negate that part of life. *"I try to keep a balance."* He explained that he studied very hard, but it was important for him to do volunteer work and be active in the community. *"I look at that and say the benefit is I get to do things with other people. Kind of my way of looking at it."*

Other younger students, Ann, Mark and Carol among them, were extensively involved in sporting activities as well as in social activities. Ann was in her fourth year and Carol was in her first, but no noticeable differences emerged in their social patterns nor in those of other young participants, based on year of study or program type. Hawkey (2000) found some differences between students depending on year of study and type of program, and Tinto

(1997) emphasized the social preoccupations of first-year students; however, my study was too small for such differences to emerge, except for the marked difference between younger and mature students.

In contrast to younger students, older students in this study did not share their keenness to experience the social aspects of university life. However, among the older students, there were some differences in approaches to social activities. Older students ranged in age from 27 years to 58 years, a 30-year span. Differences existed among the students based on whether they were in a married or common-law relationship or were single.

Students who had a family had neither the time nor the inclination to have an active campus social life. Bean and Metzner (1985) also found that mature students, who had families of their own, did not have the same desire for social engagement as younger students. Certainly, Darcy fit this pattern. With a wife and young children, Darcy, in his 30s, spent his free time with his family. He did not have additional time for socializing.

Darcy: I am not interested in making of a lot of friends. I don't know what to do with them. I don't have time to go out to bars even if I wanted to, which I don't. All of my time is essentially split between my family and my studies.

Jennifer, 40, got together with her fiancé every weekend. He traveled a distance from their permanent residence to join her on campus. During the week, she had classes for two nights and received tutoring the other two nights. "*I feel like I am running around,*" she said of her schedule. She felt that she had no time left for other activities.

Kathy, at 27, was also attached and involved in a social relationship off-campus, plus she had her teaching career to return to; university was a leave of absence from her regular life pattern. Heather, 58, had a husband to attend to, as well as looking after two international

students who boarded with her. Their rent paid for her university education. She had to be home to make them supper every evening. However, Heather did have an interest in getting to know fellow students. She had an open house to which she invited other students and instructors, many of whom attended. "This is great for me as I do not really have a lot of friends here in XX," she wrote in her journal. As well, she felt that belonging to a specific faculty would give her a "sense of community."

The social pattern of the three unattached older students was quite different from the older, already socially-involved students and, again, from younger students. Two of the students delayed their social life in order to devote their full energies to university. Sarah, 36, had put social activities on hold in order to complete her degree. When she finished, her goal was "*to get a life*." Ben, 28, kept his social activities to a minimum. He had seen other students falter and was determined that the same thing wouldn't happen to him. Of others he knew, he stated:

Ben: He didn't go to class, got playing around. He is not in school anymore. I looked at that and I said, "I don't want that." It would be nice to go out and play. Right now I am worried about getting my degree and getting out of school and getting a job.

The exclusive devotion of Ben and Sarah to their studies may be a realistic assessment of what they can manage, factoring in their hearing loss. They were returning students who made university a priority and did not want to hamper their success by social involvements. Quigley et al. (1968) and Antonson (1998) found that students who are deaf and hard of hearing had to spend more time studying than their normally hearing peers. Based on his study, Antonson noted that students who are deaf and hard of hearing did not have much time

for social and extra-curricular activities. However, the younger students participating in my study seemed to find the time for social activities because of the importance they placed on it, as previously noted.

Two other factors affecting her lack of social involvement were mentioned by Sarah. One is that, even though she was only in her mid-30s, she felt an age difference between herself and traditional students, aged 18 to 24 years. Sarah stayed in residence in the summer and noted, *“There was an age difference – 10 years. People who are around are much younger so they should go out and have fun but I had other plans. I wasn’t into university life like 20-year-olds.”*

The other factor affecting social relationships for Sarah was geographical distance from university when she did not live on campus. Pace (1990) and Pascarella and Chapman (1983b) have noted that commuter students may live too far away from the campus and from each other to make it feasible to get together. Sarah found this to be the case during the school year. The travel factor interfered with social opportunities arising from being part of a program. Despite some bonding within her cohort group, social engagements were stymied by geographical separation and, perhaps, by another factor, the need to gain some separation.

Sarah: We are all frustrated. All go out and bitch. But we live so far away – only two live in the Lower Mainland. We’ve always been supportive of each other. On the weekend we went our separate ways. We were all very focused because the Masters program was so heavy and because you were together all the time, the last thing you wanted to do was see them on the weekend.

Distance from university was a factor for Rachel, 28, who lived a considerable distance from university and, in her final year, opted to take distance education courses.

However, she also had extensive networks in her community, in which she was very active, thus she did not look to the university for a social life. Furthermore, she was discontent with the university, and so not anxious to be socially involved in it. She was close to graduation and her focus was on completion, so she could end her relationship with the university.

Distance was not an issue for Charlie, 49, as he lived on campus, but his circumstances were unique insofar as he was not taking classes in his second term and, thus, not partaking in university life in the usual way. He actively sought involvement with campus organizations and groups and discussed feelings of social alienation due to others not understanding his hearing loss, and avoiding social contact with him

Charlie: I think people, especially First Nations people, are intimidated by me. Quite a few hard of hearing people don't talk about their needs. They prefer not to voice them. They just become part of the furniture. I choose not to do that.

Religious activities and his spirituality were essential to his well-being. He stated, *"That's how I've survived. Spirituality. Because I have a Creator in my heart. I read the Bible everyday. That's 75% of helping me win the battle. It's really important to me"*.

Only one other student, who was part of a campus religious group that organized a number of social activities, mentioned involvement with formal religious groups. Other students, however, noted that spirituality was important to them but kept this as part of their private lives.

Impact of a Hearing Loss

Many of the social involvements in which younger students participated were of a formal nature, such as being part of an organized sports team, belonging to a club, being part of a work group, or taking part in an organized campus activity. Younger and older students alike seemed to have avoided certain types of informal activities. Some of this had to do with what was a comfortable number of persons with whom to communicate. Jennifer said she liked *“one-on-one, going with a friend for coffee. As soon as it gets three or four people I can get stressed a little bit quicker, tired.”* It is more difficult to hear when there are several individuals involved; they may be at various hearing distances and their interaction may result in multiple dialogues at the same time.

The other factor was the nature of the environment. Regardless of age, almost all of the participants eschewed cafeterias, bars, and restaurants. Their hearing loss had a direct impact on their ability to participate in these types of informal venues, generally high noise volume areas. Even one-on-one encounters tended to be avoided in some of these types of environments. As a result, most students in my study said they avoided bars and nightclubs, including those on campus. Sometimes they did not frequent restaurants, known to be quite loud. They found parties to be noisy. Typical of the respondents in this respect, Kathy noted, *“I do significantly poorer at parties...I have a lot of difficulty in loud restaurants.”* Jennifer stated, *“Background noise. That’s one thing I can’t follow.”* Charlie also noted his difficulties with such situations:

Charlie: I went to the coffee house and I thought, “I will check it out.” But there was a noisy background. I didn’t bother staying. It’s too stressful for me. My hearing aid picks up the noise I can’t filter out. I have to be very particular about social functions.

Ann explained that social situations were frustrating for her because she could not hear well enough to participate. As a result, she avoided parties and preferred spending time with friends who already knew about her hearing loss.

Ann: Well, there were some environments, which I didn't enjoy as much... where there's a lot of people and background noise and I couldn't hear a thing. And I felt more like an observer than a participator, and, naturally I am a participant. I get in there but this was a situation where I couldn't do that and I didn't like the position I was in.

Even such common venues for interaction as stairways and walkways can be difficult listening situations for students who are hard of hearing. Whereas hearing students can strike up a conversation in such places, as they go to and from classes, students who are hard of hearing have difficulties hearing because these locations are often quite noisy and make it difficult to see the other person's face, necessary for speechreading. Kathy noted that communicating with other students just walking to and from classes with other students was hard. Also difficult was washroom chitchat, again because of the noisy environment and reduced lines of sight. As a result, students who are hard of hearing may miss out on informal types of opportunities to relate to their peers.

Hearing difficulties in the classroom possibly spilled over into difficulties forming relationships with other students. Jennifer noted that during classroom breaks she was left alone and no one really took the time to talk with her. Charlie also noted the same distancing by other students. In the previous section, several students cited incidents when classmates

reacted negatively to them, among them Darcy who noted that students snickered when he spoke out of sequence in class.

Isolation

Isolation can threaten a student's sense of belonging and commitment to university (Tinto, 1985). Persons who are hard of hearing may already face issues of being divided in their identity between the hearing and the hard of hearing worlds (Israelite, 1993; Israelite et al., 2002; Lutes, 1987; Warick, 1994b). From what is known about deaf students, peer difficulties can bring about loneliness, isolation, and feelings of rejection (Capelli et al., 1995). The sense of isolation can be profound. Some, but not all, students participating in his study expressed some sense of isolation at one time or another. Charlie expressed these feelings strongly.

Charlie: I get lonely sometimes. I want to be a part of things socially and I just can't go over and start talking to people because it means they have to accommodate me. As a matter of fact that really hurts my feelings.

Because of their hearing loss, some students appeared not to have developed the inclination to form friendships. They have built a life around avoiding social situations because of the hearing difficulties, and it was easier to relate to persons one-to-one than in a large group. As a result, it appeared that some students who are hard of hearing de-emphasized social activities or engaged in them only with known friends. To some extent, it would be natural for persons to maximize their comfort in any situation and to choose social partners with whom they felt the highest degree of comfort.

Charlie: All of my life I have been hard of hearing. I have been extremely selective about my friends to the point where I don't have very many. I don't go to movies with anybody. I rarely go for coffee with people. I am always working and I use the excuse I don't have any time.

Kathy noted that she did not seek to form new friendships. *"I go with my close friends, people I know well. I am more used to how they talk."* Nor was Darcy keen to acquire new friends. *"I have never had many friends; that's the way I have always liked it."* However, Darcy did not recommend his approach for others. When asked what advice he would give youth who are hard of hearing, he advised them to fully experience all that university has to offer. *"Socialize. Talk to people. Meet people. Join clubs. Whatever it takes. Don't live in a cocoon like I did."*

Balancing School and Activities

Although social involvement is generally regarded as a positive aspect of university which enhances student retention, there are also cautions about becoming too involved. Stinson and Walter (1992) found that students who engaged in too many activities were at academic risk. They felt this problem may be more pronounced for first-year students.

First-year students participating in my study did not indicate over-involvement as a problem, possibly because they have not yet had a chance to form a lot of networks that could result in too many commitments. However, several students in upper years indicated a sense of being over-extended and wondered if they would have to make some adjustments in their schedule. Despite taking a reduced load of courses, Yvonne was feeling pressured.

Yvonne: Unfortunately, I'm getting behind in my school work – I had to hand in an assignment pretty late and didn't get enough studying done for one of my 2 big quizzes on Monday....I was actually wondering if it was "the smartest idea to take 2 5-credit courses in one semester, w/a 3 credit course, work and an actual life."

Five days after Yvonne wrote the above in her journal she reiterated her *"concern about my productivity."* She stated that she *"should get more done per day"* and was counting on reading week to catch up and was planning on developing a to-do list. *"If I screw it up, I'll never be able to fully catch up."*

Two more days later Yvonne expressed similar concerns about her ability to handle school, social and other activities. *"I'm trying to deal with the increasing workload, and working part-time as well. I think I don't work enough, but I refuse to quit socializing all together. It's too important a stress-reliever for me to do that."*

Darcy kept his social involvement to a minimum because he wanted to devote any free time to his wife and two children. However, he was active with the campus disability organization and wrote in his journal *"I may be devoting too much of my attention to that instead of my studies."* He was feeling particularly concerned because of the difficulties he was experiencing with his classes, exacerbated by hearing difficulties.

Being Part of a Group

If participation with a group of hearing peers is difficult, would students who are hard of hearing turn toward each other? Israelite et al. (2002) suggested that persons who are hard of hearing can get support and validation from peers. Foster (1988) found that Deaf students

associate together to meet social needs, but this pattern did not emerge in Menchel's (1996) study. In Menchel's study, the students who were deaf did not socialize with each other, nor did they link up with the local Deaf community.

None of the students taking part in my study were part of an organized group of students with a disability or a hearing loss. Only half knew of someone else with a hearing loss. Study participants were asked if they would like to be part of a group of peers who are hard of hearing, and responses were almost evenly divided between yes (5), no (5), and maybe (4). Very few knew others who are hard of hearing. This mirrors responses to a national youth study (Warick, 1994a) in which students were similarly divided about being part of a group of persons who are hard of hearing.

One of those interested in being part of a group of hard of hearing peers was Darcy, who stated that he wouldn't mind. But, for him, *"It's not a drive, not something I am really concerned about."* Ben did not feel that he felt he had the required time to devote to being part of a group. Besides, he noted, *"I am independent. I don't really feel like I need the assistance."* Ann was one of the students who responded positively to being part of a group of hard of hearing peers. She stated, *"It would be nice to connect with people who one could connect with what one has gone through and to confirm that I am not imagining things and that this is an actual biological impairment."* Charlie also felt a strong need for this type of connection and stated that he would welcome being part of a group of peers to discuss hearing loss concerns and issues.

Sports Involvement

Almost half of the students cited being involved in sporting activities. All of those involved in sports participated alongside hearing peers; none were involved in sporting activities designated for persons who are hard of hearing. For example, there are sporting activities for Deaf persons. However, it is consistent with the identity of being hard of hearing that the students who participated in this study were involved in integrated sporting activities.

The level of involvement in sporting activities compared to that of hearing students using Walker's (1999) figures as a benchmark. In his study of student use of student services and facilities, Walker found that 60% of students, from 23 participating universities, stated that they used athletic facilities. Of the 23 categories available to students, only three had higher scores for use: campus bookstores, 98%; computer services, 83%, and advising by faculty, 66%.

The involvement of students who are hard of hearing in sports has its challenges. A key difficulty cited by some students was hearing aid wear during sporting activities. There was the danger that hearing aids would fall, break, or be damaged. Moisture from sweat glands might seep into them, causing malfunction. Taking off the hearing aids might keep them safe but would not provide the wearer with hearing access. Carol summed up some of her challenges.

Carol: I play on the University X rugby team. I started playing rugby in high school. It was really difficult when I first started. It's not a game where I can wear my hearing aid....That's one thing I needed to consider. It's difficult to follow in practice. I am hesitant to be the first one to go and hit because I don't understand or hear any of the instructions. It's a matter of watching and guessing.

Some of the students were involved with highly competitive sporting events which was demanding hearing-wise, but sufficiently enjoyable to engage in the activity. Ann was on a competitive Ultimate team, a sport which she described as being an extremely dynamic game that demands solid teamwork and quick responses to vocal calls.

Ann: As a newcomer, to the team, I often found myself to be a liability. Often, I do not hear these calls and as a result, have become a weak link in the defensive chain. Since I'm not where I'm supposed to be, the opposing team gains an advantage.

However, Ann was becoming more comfortable playing with the team as she gained more experience. She found that she was able to rely on visual cues rather than aural ones.

Impact of a Family

Most of the students in the study spoke positively about the influence of their family. Mark noted of his parents, *"Morally my parents are very supportive. They are both good people. They support me in what I do."*

Sarah, who is both legally blind and hard of hearing, went through a period of wondering if she would lose her remaining sight. She attributes her ability to handle the stress of the situation to having very supportive parents and her own strong personality.

As mentioned previously, homesickness was severe for James, who kept in close touch with his parents through e-mail and occasional visits. He had never lived away from home before and was just experiencing his first year of university.

Family was not always positive. Heather found that her husband was not supportive. Heather stated, "*My husband did not want my opinion. I was just the housewife.*" University was a separate life that she carved for herself from her home situation. Gayle found it stressful to live at home because her father was an alcoholic. She would have found it easier to live independently of her family, but could not afford to do so.

Work Patterns

Eight of the students were not working while studying. Most felt that they needed the time to devote to their studies. However, six students indicated that they were currently working; five of them were holding part-time jobs. One student had completed all of her course work and subsequently became employed full-time as a teacher.

Of the students working in part-time jobs, two were older students who had been in the workforce and maintained a connection to their previous line of work, and so were able to secure employment. They taught on a substitute basis, which took them off-campus. Two of the other three students were working in jobs connected to the campus, which got them more involved with university life. Yvonne worked in a campus security office and prepared their newsletter. The work varied from four to 12 hours a week. Yvonne was very positive about her job: "*The staff is great. I love my boss. They are so funny.*" Yvonne's enthusiastic response to her job indicates that this kind of campus work can contribute to social integration of students.

However, Yvonne also found that there were some adjustments on both sides when she began her employment. It was the first time she had worked in a job where people did not already know her and how to communicate with her.

Yvonne: This was a totally different situation where, first of all, I was the first disabled student they hired. Basically, I had to work in a completely new environment, very different, full of regulations, protocol, policies. This is sort of like learning what it is to work in the police. It gives you an idea of it. I had to basically learn how to educate people on how to interact with me; people have learned how to ask me questions.

One student, Carol, spoke of being rejected for employment as a ticket agent because of her hearing loss. She found the experience disheartening because she was honest about her hearing loss.

Carol: I was told that my chances was very good that I had that job. I mentioned I was hard of hearing and they told me that would be a problem and probably wouldn't work and I haven't heard from them after that.

Most of the work of the students was unrelated to career goals, except for those students in the teaching field. Six students identified teaching as a career goal. Three students had an interest in being a human service worker, either a social worker, a human resource officer, or an international relief worker. Only one was interested in a science field, forestry, and one wanted to do environmental policy work, although she was not sure. Two students were uncertain about their career goals, as shown in Table 9 on the next page.

Table 9

Students' Career Goals

<u>Student</u>	<u>Career Goal</u>
Charlie	Social Worker
Kathy	Teacher of students who are deaf and hard of hearing
Mark	Human resource professional
Yvonne	Writer, Teacher or Archeologist
Carol	International relief worker
James	Not sure
Sarah	Teacher of students who are the deaf and hard of hearing
Gayle	Self-employed, housing policy, writing
Darcy	Professor
Rachel	Social Worker
Ben	Forestry
Heather	Something different with life
Jennifer	Teacher of students who are deaf and hard of hearing
Ann	Teacher

Summary

Marked differences in the social patterns of most of the younger and older students were found; these findings were consistent with research findings of Bean and Metzner (1985) and Metzner and Bean (1987). Older students tended to view social activity as peripheral to their academics and tended to have relationships and activities outside of university. Most older students felt they had no time for additional social engagements on campus. In contrast to older students, younger students sought to have active campus social lives and viewed social involvement as integral to their university experience. For them, social involvement was part of their development as young adults. None of the younger students were married or in common-law relationships.

Differences were also evident among older students, based on relationship affiliation. Older students involved in a relationship had less need for forming new social attachments than did younger students. The exception was one older student who did not feel supported in her relationship. At the same time, two older students who were single were so focused on studies that they had no time for social involvements. However, one of them also discussed feeling much older than the other students and living too far away from campus to engage in activities, suggesting that reasons for social involvement are multi-dimensional and complex.

Most of the social involvements of students who are hard of hearing were formal in nature, such as being part of an organized sports team, a club, or a work group. Organized activities may be favored over informal activities because the communication may be structured and the number of communication partners more readily controlled than in informal groups. At the same time, the activity may pose challenges. Competitive sporting activities may be unforgiving if the player is unable to hear to respond appropriately. One

student described herself as a “liability” to her team in the early going, but eventually gained more confidence in her ability to come up with strategies to overcome her hearing difficulties. Half of the students, most of them younger, were involved in athletic or sporting activities. Only two students mentioned being involved in religious activities on campus.

Younger and older students were alike in eschewing certain environments such as cafeterias, bars and restaurants. They avoided high noise volume areas, and this had an impact on their social involvements. Their hearing loss also impacted on their ability to converse with other persons when walking to and from classes, going up and down stairs, and using washrooms. These locations tend to be poor sound environments; persons who are hard of hearing are further disadvantaged in such places because sight of the other person’s face for lip-reading is impaired. As a result, students who are hard of hearing may miss out on informal types of opportunities to relate to their peers.

The social difficulties experienced by some students who are hard of hearing may result in feelings of isolation and loneliness. Social interaction difficulties in university may have been a continuation of past patterns, including avoiding certain social situations and emphasizing one-on-one relationships instead of group involvement.

A few students expressed concerns about being over-extended, and were concerned about the impact on their academics. Stinson & Walter’s (1992) finding that students who are over-involved may put themselves in academic jeopardy seemed to have some credence, based on the accounts of students participating in the present study.

Type of institution attended may affect social activities. Commuter students stated that they lived too far away from the campus, as well as from other students, to make social get-togethers feasible. Comments about the impact of being a commuter student pertained to both

older and younger students; however, older students tended to be less willing than younger students were to overcome travel distances for social engagements.

Family involvements were also discussed in this chapter. Families tended to be a positive source of support for most students. Eight students did not work so that they could devote most of their time to their studies and university activities. Most of those who were employed held part-time jobs; two students worked on campus and three students off-campus. One student had completed her studies by the time of the second interview and was employed full-time.

The findings about the social experiences of students who are hard of hearing suggest that their hearing loss impacted on the manner in which they formed social relations. In addition to social considerations faced by all students, such as those related to family relationships and proximity to a university campus, students who are hard of hearing have to deal with communication issues. Because a hearing loss profoundly affects communication, it has an influence on how students as agents structure their social relations and, in turn, how they are affected by existing structures.

CHAPTER SEVEN

DISABILITY-RELATED SUPPORTS

One of the research questions of the study was aimed at ascertaining the impact of disability-related supports on the experiences of students who are hard of hearing. Before discussing this topic, it is worthwhile to note that almost all of the students participating in the study were recruited through a Disability Services Office (DSO). The remainder of this chapter will discuss participants' experiences with the DSO and disability-related accommodations at their university.

Disability Services Office

The majority of participants, nine of them, had considerable contact with their DSO. Five students had limited contact with their campus DSO, despite having been recruited for this study by a DSO Coordinator. Their reasons for a lack of contact with their DSO varied. Two students preferred it this way because they wanted to be as independent as possible. One student only became aware of the existence of the DSO in her last year of university when she was near completion. For two of the students, the lack of contact was because they did not find the DSO responsive to their needs.

Most students were inclined to rate disability services as quite important, even those with limited contact unless the lack of contact was due to negative experiences. Study participants were asked to choose a ranking on a scale from one to seven, with seven being the highest score. Eleven of the 14 students stated that the DSO was very important, and the other three gave it a low rating because they did not find the Office helpful to them.

Of the students who had positive ratings of the DSO, distinctions were made between its importance in general and their own experiences with the office. Several stated that they did not make much use of the office, but still felt it was quite important. Yvonne reflected this viewpoint.

Yvonne: It's important in knowing that it's there. The fact that it's there alone is important. I may not necessarily need the full range of services that they offer, but that's okay. The fact of knowing if something is going to happen, if something came up that I foresee in the future, I would know that DRC [the DSO on that campus] would be there to help me.

The foregoing was one of three main reasons why a DSO was important to students, namely, that it was there to help students deal with difficulties encountered, regardless of it being an academic, social or institutional matter. Tied with this is another, similar purpose of the DSO, namely, that someone would be available to discuss difficulties with and strategize over solutions. In the latter case, students would use the DSO as a sounding board but deal with issues themselves.

The other purpose for the DSO was the dominant one for many students, namely, that it provides students with support services such as notetaking, tutoring, and technology support. Some students referred to the DSO as being a broker for service delivery. Carol stated, *"It's very important. I don't think I [would] receive any of the things I do now if there wasn't some kind of office or person I can go to."* Jennifer echoed this sentiment: *"I suspect that if it wasn't here, I wouldn't get notetakers."*

Darcy explicitly expressed that the Disability Coordinator was important because of services provided to him: *"Having Tom³¹ [DSO Coordinator] around is very helpful. If it wasn't for him I wouldn't have known I could get a computer; could get captioning. Would not have gotten a loaner computer."*

Ann became aware of the DSO only in her final year of university. The Office helped her obtain funding from the University's Financial Aid office to get a hearing aid. When asked to rate the DSO on a seven-point scale, she said *"I would say six or seven because of what they have been able to do for me."*

Yvonne noted that obtaining notetaking from the DSO was the service she valued the most. However, she also raised the fact that if there was a problem the Office was there to help out. This was also an important dimension for some of the other students.

Yvonne: I know if there is a problem and the teacher does not want to accommodate me I can easily go to the DSO to work things out, but being I never had that problem, I usually work things out individually with the teacher.

In terms of the importance of a DSO to her overall university success, Rachel felt that it helped generate an understanding on campus. She stated, *"I think it is essential. Because if the professors aren't aware of the circumstance, isn't that why Disability Services is there? To bridge that gap."*

The view of the importance of the DSO is also institution- or coordinator-specific. Two students had experiences with a Disability Services Office at two different institutions and, although they did not feel their current experience was as positive as it had been at the previous institution, they felt the potential work of the Office was important to students with

³¹ Not his real name.

disabilities. By contrast, another student felt more positive about the DSO because the DSO Coordinator was prepared to intervene for him. He found this astonishing because it was not what he had experienced elsewhere.

Charlie: University Y leaves them [University Z] in the dust and I really mean that. Like once the Disability Coordinator got the issues [and said] "We will call her up and we will have a conference." That never happened to me; never happened at University Z. Never: "We will call her up".

Even at the same institution, a change in Coordinator can affect the services students receive and the student's view of the Office. This was Rachel's experience.

Rachel: I gave that a '4' because they had a disability coordinator there -- he was great. He provided me with services the first semester and then he left the job... and they put someone new in and the woman told me that I wanted special privileges and I didn't need notetaking. So the second semester I didn't get notetaking but the first semester I did. So that's why I decided to go to another campus after that.

Several students felt that although the DSO was of only moderate importance to them, it was of greater importance to others who could get more out of such an office. As a result, they tended to say the DSO was very important. Gayle took this approach, giving the Office a 4 rating in considering herself as the client, but a different rating for others. *"I would give it overall, taking an outsider position; I'd give it a 7. I think there are people that can get more out of it than I am."*

While giving it a '1' for its importance to her personally, Heather said, *"I don't want that to reflect the office. I am sure for some people it is terribly important, just not for me personally."* She had no negative experiences with the DSO, just no need for it.

Ben raised the point that the importance of what the DSO could do for students should decrease for students in their third and fourth years. By then students should be more able to navigate the post-secondary system on their own.

Ben: I think it is being fairly important because if you ever need some kind of advice and you never know when you are going to run into a problem. It has been fairly receptive over here. You go and talk to the instructor and most of the instructors are fairly accommodating. It's only when you ever run into a serious problem that you come back here. It's a kind of last resort. When you are in third and fourth year you should be able to work things out for yourself.

One student who ranked the DSO as less important was Mark, who did not find it helpful to him in college and again at university. In his first year at university, the DSO refused to provide him with extended time for exams. He tried them again in his second year. *"I went there once this term to find out about scholarships and they didn't help me so I didn't go back there."* Mostly, Mark felt that he was on his own to deal with any problems that arose.

Use of Disability-Related Supports

Students who are hard of hearing are low users of services (Killeen & Hubka, 1999; Menchel, 1996; Warick, 1994a). This held true for students in this study with two or three exceptions. Table 10 provides a profile of services for each student and Table 11 provides an overall summary of four types of services used by students.

Table 10

List of the Services^a Utilized by Students Who are Hard of Hearing

Student n = 14	ALDs	Captioning	Notetaking	Tutoring
Charlie	Yes	Yes	Yes	Yes
Kathy	Yes	No	Yes	No
Mark	No	No	No	No
Yvonne	No	No	Yes	No
Carol	Yes	No	Yes	Yes
James	Yes	No	Yes	No
Sarah	No	No	Yes	Yes
Gayle	No	No	Yes	No
Darcy	No	Yes	No	Yes
Rachel	No	No	No	Yes
Ben	No	No	No	Yes
Heather	No	No	No	No
Jennifer	Yes	No	Yes	Yes
Ann	No	No	No	No

^a Only one student received oral interpreting services and none, sign language interpreting.

Table 11

Summary of Disability Services Used by Students Who are Hard of Hearing

Use	ALDs	Captioning	Notetaking	Tutoring	Oral Interpreting
Yes	5	2	8	7	1
No	9	12	6	7	13

The foregoing tables show that notetaking was the most used service, following by the use of tutoring and ALDs³² to a lesser extent. Interpreting services were not used by any student, and, hence, were not reflected in the tables. This is not surprising because the respondents are hard of hearing. Only one student used oral interpreting.

Notetaking

Notetaking is a low-tech, non-interventionist service, and all three universities involved in this study employ students to provide notetaking. As mentioned, this type of service was the most widely used of all the disability-related services available to students who are hard of hearing, with tutoring and use of assistive listening devices next in frequency

³² ALD refers to Assistive Listening Device as cited in previous chapters; see the Appendix for further information.

of use. Eight of the students had a notetaker provided by the Disability Service Office and another two students obtained notetaking on their own from other students when required. Usage did not relate to level of hearing loss; students with greater levels of hearing loss did not necessarily get notetaking.

Some students got notes for all of their classes while other students got notes for only a few classes. For Kathy notes from another student were a safety valve.

Kathy: I have a fair amount of my own and sometimes I only have the notetakers because the teacher was talking too fast to write it. Fairly important. I like having notes just in case I miss something. If using a 7-point scale I would say about a 5.

Other students relied on notetakers more heavily than Kathy did. Charlie explained that he could take his own notes, but only for about 15 minutes, and he would become exhausted trying to do so and lose the ability to grasp the main points because he was concentrating on listening.

Charlie: I don't have that ability to filter out unnecessary information because I am struggling physically literally to hear. I hear everything up to that point and then I write it down and then I miss in-between that and where I pick up.

If an instructor has English as a second language, a soft speaking voice or unusual speech patterns, the student may find it difficult to take notes. Sarah noted that that was the case for her: *"There were times when I needed notetakers. Only if the instructor's English is a second language but that hasn't happened very much."*

Yvonne found a notetaker more necessary in classes where professors were giving a lot of information. Use of a notetaker was more important for lectures than for discussion-type classes. The importance of notetaking also rose if tests were involved.

Yvonne: She presents a lot of information. And, although I have a good, solid background in educational psychology, to be able to understand the material, I felt that it makes more sense for me to focus on paying attention to what she is saying and have somebody write the material, so I can read them later, and that way I can get the most benefit.

Yvonne found that when she did not have to concentrate on taking notes she was better able to concentrate on the subject. She was freed up to organize her thoughts.

Yvonne: I find myself actually organizing in my head what she is saying based on the outline she has given. I am remembering stuff more, so when I look at the notes I kind of recognize from listening to her. Whereas if I were taking notes myself, I would be paying more attention to writing stuff down rather than organizing them in my head.

Some students who took their own notes felt that they were more likely to reinforce their learning by taking notes themselves, as opposed to having a notetaker. The act of taking notes helped to reinforce concepts learned in class. Darcy did his notes on a laptop computer and found that, while typing, he was able to watch the instructor and classmates - important because of his need to read lips for comprehension. "*Versus reading someone else's notes, using a computer it sticks in my mind better,*" Darcy explained.

Some students cited difficulties getting notetakers. Rachel requested a notetaker for her classes and said that the DSO gave her *"the run-around. I requested it; never did get it."*

Yvonne got her notetaker just a few days before her mid-term exam.

Yvonne: With this particular class I had to go through three notetakers because the first one was ineligible; the second one, she dropped out of the whole thing. I ended up getting my notes for the class three days before the mid-term exam.

Occasionally a student may have had a notetaker whose notes were inadequate. The notes may have lacked sufficient detail or conformity to the student's style preferences, such as using full words versus abbreviations.

Carol: Some of my other notetakers will take down stuff I can get out of the textbook. I need things that come out of a lecture like the different opinions that the professors may have to give students and an idea of how this concept can be applied, which the textbook might not look at that view.

Tutoring

Half of the students had received tutoring, usually for one course. The amount varied from being two to three hours once a week for one student to being two to three hours twice a week for another student. Students described such tutoring as being extremely helpful to them. Jennifer described the impact of a tutor for her as, *"Big impact, just that one-on-one and talking strictly about the subject, just clarify things, getting things explained more clearly to me; it helped immensely."* She said she didn't think she would have been successful in the class without a tutor to assist her.

As noted by Jennifer and other students, the role of a tutor is to explain concepts and clarify material raised in the class. Carol also received tutoring and noted that her tutor would go over concepts raised in class and explain them. *"She would basically teach me the concept and then we work on the problems. She really went out of her way of recognizing that."*

Ben noted that sometimes information was missed and the tutor helped to fill in the gap, but this required going over the entire concept that was not understood in class because of the missing information.

Ben: If you are in a class the teachers go at this pace and has to accomplish so much per lecture, and it's very hard to follow along. But [when] you have a tutor you can go three steps forward and if you are not sure about something you can go back one step; practice it until you get it right.

Unlike other students who received tutoring services through their DSO, Rachel received her tutoring from a provincial program set up specifically to provide supports to students with hearing losses. Rachel met with a staff person of the program once a week, usually at the off-campus centre. Rachel found that this person was an enormous support to her. In terms of tutoring Rachel said that this person, *"basically proofreads my assignments before I hand them in and she notices tenses I use, 'was' instead of 'were.' "*

Four of the students who did not get tutoring said that they didn't require it because they made it a point to get additional instruction from their instructor or classmates. They viewed this as being a form of tutoring. Mark stated, *"Most of my tutoring comes from the profs or students that I know who is knowledgeable on that subject."* As well, James received extra instruction from his instructor. *"I meet with him weekly to go over whatever problems that I missed in my assignment or help with some problems. I find that helpful."* However,

students who received tutoring also made a point of asking their professors for extra help, so doing so was not unique to students who were not getting tutoring.

Sometimes a difficulty with a course prompted a student to get tutoring. Darcy had previously not obtained tutoring but was planning to do so for the French course with which he had already experienced considerable difficulty. Sarah had had a tutor for biology when she first went back to college after being away from school for a number of years. She also found that it helped her with *"learning to become a student. Also, to get my confidence up."*

Ann had not realized that tutoring services were available until her final year of studies. She felt that she would have benefited from having a tutor earlier because English is not her first language, which exacerbated her difficulties comprehending what she heard. Ann noted that without tutoring, *"sometimes I would conclude things for myself that were completely wrong because I was trying to piece things together, find the missing piece."*

Assistive Listening Systems

Only five of the 14 students used Assistive Listening Devices (ALDs); most frequently used was an FM system. An FM system consists of a transmitter, usually worn by the instructor, which broadcasts radio signals in a designated frequency to the receiver worn by the student. Another type of ALD is an Infrared system, which transmits sounds by infrared rays.

Besides the five users of an FM system, five other students had tried the system but, did not continue with its use in university. Their reasons for non-use varied: they felt it would not be useful, did not want to be seen as visibly different from other students, or felt it too much difficulty to cart from one class to another. The remaining four students had either

never heard of an assistive listening system or felt that they had been told about it too late in the school term for it to be of benefit to them. The low use of FM systems in university classrooms is consistent with literature findings (Warick, 1994a).

Kathy used the FM system without a hearing aid. All of the others used the FM system in conjunction with their hearing aids. James said he found it to be "*very reliable*" and he was "*appreciative of it.*" James felt that he could, if necessary, get by without an FM system but "*it is so much better having one. Sometimes it's like night and day.*" He explained that what accounted for the difference was the clarity of the sound provided by the device and that he heard his professor's voice more loudly, over all the other class noises. Hearing aids alone could not accomplish the same benefits.

Jennifer had used an FM system in college, but at university had obtained new hearing aids, which did not have a sufficiently strong T-switch³³ for use with an FM system. Although she liked her hearing aids, she said she wished that she could use an FM system with them.

Kathy, who started using the FM system only a few weeks previous to our first meeting, was frustrated with having to wait several months before she got her equipment. When she got it she found that "*It made it easier because everything was amplified and I didn't have to have people speak up. Made some difference in class discussions but the FM picked up extraneous noise like whispering which normally I wouldn't hear.*"

James also had similar problems with the FM system picking up more than just the professor's voice. He found that the system was very good, except in his history class when there were class discussions. In high school he got around this problem by setting up the

³³ A T-switch refers to the capability of a telephone to receive signals in a form that provides the hearing aid wearer with clear sound.

microphone for the FM transmitter in the middle of the room, but at university he has not done that.

Mark also found that the system did not work well in picking up students' voices, so he decided not to use it. Yvonne said she "*hated*" it because she was responsible for picking it up and getting the instructor to use it and then returning it to a central location. She found all of this burdensome and decided not to use the equipment.

Yvonne: I found it quite cumbersome though. I couldn't carry it around all the time, and having to return it to the Centre and then bring it back to another class, putting it on and making sure the teacher got theirs put on.

Ben had tried an FM system in college but didn't like it because he got feedback from the system. Sarah had tried the FM system but had not noticed a difference with it. She also found that it "*keeps breaking down.*"

Sarah: It's never been a problem for me to follow along. I haven't really missed anything. So I didn't find FMs made any difference. I do know for some students it does make a difference. But, at the same time, as you know, it is awkward and it's noticeable.

Darcy also found that the FM system did not make any difference for him. "*All it did was make the sounds that I wasn't able to interpret louder. It didn't help me to understand any better because I still needed to lipread. If I can't see, I can't hear.*" Thus, whereas Sarah was able to hear well enough without it, Darcy wasn't able to hear well enough with it to make its use worthwhile for him.

Gayle had never heard of the system until the issue was raised during the interview. She felt with only a few months to go before graduating that it wasn't worth trying, although

she might consider it for graduate school. Rachel had heard of the system but had never seen one. She said that the DSO Coordinator was going to get her one during the last week of classes, but she herself saw no point in getting one at that stage. Ann had only recently got hearing aids and felt that an FM system would not help her type of hearing loss which is in the lower, not the higher, frequencies. The latter is the more common type of hearing loss.

Three students had the experience of instructors refusing to wear the transmitter part of the FM system. This happened to Carol in high school and she failed the class. *"Because I missed what was being said orally and tutorials, tutors and extra materials just couldn't compensate for that."* She said the experience made her apprehensive about whether she might run into the same difficulties in university. *"I became more cautious when I came to university knowing that there could be another barrier that I might have to face in terms of having to get them to wear it."* She has not found a problem, although initially it took awhile before she could get an FM system.

Charlie experienced a problem with one of his instructors refusing to wear the transmitter of his FM system. The instructor was already wearing a microphone connected to the room sound system and did not want to wear another microphone. She tried it once and did not use it after that.

Charlie: She wore it once and she said she prefers that I set it up in front of the speakers. That's what I did but it would squeak if I put it too close, and if I put it too far back I would get the echo. Either way it wasn't good for me. Then I asked her to start wearing my FM set and she always made excuses as to why she couldn't do it.

Charlie went to the DSO and a Coordinator set up a meeting with the instructor, the result being that she was going to wear the FM system. However, Charlie recounts that this never happened.

Charlie: I asked her to wear my FM set and she said, 'I don't need to use that thing.' And, then she said, "OK, I will use it." And she put it on, then she tried talking to me and I couldn't hear or understand her because students at the back were talking. I said, "Dr. XX, I can't understand you." And she said, "Forget it" and she went like that. She went on talking to the class like I wasn't there.

Charlie found this experience very hard to take. The experience haunted him deeply for weeks afterward, affecting his studies and his mental state.

Charlie: I was in shock. I am almost 50 years old; she is 31. For 10 seconds I didn't know what to do. There was rage inside. I thought, "What am I going to do?" I have always tried to be objective. Two Sundays in a row I am in church crying uncontrollable and I talked to my friend and I couldn't help it and started crying. I was talking to him about the problems and I started to cry. That's how bad it has gotten for me because of the problems I am having and the only one that understood is the Disability Coordinator.

The result for Charlie was that he was given a retroactive withdrawal with a full refund for the year and a space was held for him in the next year. A combination of factors led to this action, but one of the contributing factors was the instructor's negative attitude which denied him access to the classroom through use of the FM system. The DSO Coordinator was instrumental in getting the concessions.

James also experienced an instructor's initial refusal to wear an FM system, but the refusal was based on a lack of information and understanding. James got to the class with only

a minute to spare and so he didn't have time to give a detailed explanation of the device.

When the professor asked what it was he told him it was a microphone, but did not specify its nature. Once the professor understood what the device was for, he was willing to wear it.

James: He thought it was a real microphone and he was worried about how it would affect and bouncing off the wall, so he said, "No, no, I don't want to wear that." Then I told him I really need to use this. Then he said he will wear it. By the end of it he realized what it was, what it was doing. He said, "Sorry about what he had said."

Hearing Aids

Hearing aids make a huge difference for some students, improving what they were able to hear and learn, as well as reducing their stress and the amount of energy spent on trying to hear. Ann got hearing aids in her fourth and final year of university. She found, *"They have been great. I can't imagine being without them anymore. I can't believe all that I missed out without them."*

Hearing aids were more important than FM and Infrared systems to several students. These individuals reported that newer models made it unnecessary to use such a system, although at least one student, Jennifer, found that the hearing aids were not powerful enough and that she still needed an FM system.

Two students had never had a hearing aid prior to their academic studies; they were able to receive funding for their hearing aids, one through a provincial government program (Vocational Rehabilitation Services) and the other through a university fund on the recommendation of a DSO Coordinator and an audiologist. However, these students were exceptional; for most students, hearing aids are not funded or provided, even though ALDs

are covered by a government funding program for services and equipment (known as the Canada Study Grant). Hearing aids are considered a personal device, while ALDs are not.

However, hearing aids do not take away all of the difficulties of a hearing loss. For example, the aid may not be noticed. Charlie explained:

Charlie: OK, maybe it could be a little bit better, but most people don't notice your hearing aids and until they notice they just treat you like anyone else. They don't speak up or anything. I don't think people are ignorant when they talk to you, but they are only ignorant in the sense that they don't know what you are having to deal with.

Some students went for several weeks without an adequately working hearing aid. Jennifer went without a hearing aid for three weeks of classes. *"Three weeks of classes that were like hell for me,"* Jennifer found. James noted that without his hearing aids he feels lost.

James: When I was in the class, even sitting at the front, I could hardly hear my professor....Straining to hear her made me realize the enormous benefit that my hearing aids provide for me everyday. Fortunately, most of the essential notes were on the overhead, but who knows what I missed?

James added that his greatest difficulty in university was when his hearing aids did not work. He went without his hearing aids working for a two-month stretch. Besides the hearing difficulties encountered, hearing aid repairs take extra time out of an already time-pressured schedule. Furthermore, not having a hearing aid affected his use of his FM system.

There can be self-consciousness about using hearing aids. Charlie noted, *"People say that you get used to hearing aids but you never really do. Your voice sounds really loud with*

hearing aids. I'm not that loud. Yes, I am self-conscious." However, for the most part, just as was the case with Charlie, the students in my study wore their hearing aids.

Exam Accommodations

The most needed type of exam accommodations by most students was for instructors or exam invigilators to write down any verbal changes given to the class. However, professors don't always remember to write down their verbally conveyed changes. James encountered this problem several times.

James: It could be quite distressing. The entire question – it's changed because it's like they have made an error and the question doesn't work any more and you were working through the questions not knowing that they have made the change. That has happened a few times.

In those cases, James explained to the instructor that he did not hear the verbal instructions and because he had the entire work showing, for example in math, he was usually given some marks for his responses.

Carol discussed her exams with her professors ahead of time. *"I have asked that all instruction be put up visually on the overhead. Actually gone to see my professors ahead of time and asked if there is anything I need to know in terms of the procedure."* If she missed something during the exam she has talked to the student next to her to *"just ask them to rephrase something that I missed."* The student knew about Carol's condition, but Carol still felt that *"It's like you are trying to cheat."* In the past a professor has accused her of doing that but she continues the practice. *"I am hesitant to ask, but it's an exam and I need to know."*

For her French exam, Yvonne and the instructor had discussed the teacher giving the exam to her separately, one-to-one, *"but we both agreed that would be too easy for me because it is not quite the same because I would be reading her lips, not listening for it. I would have an unfair advantage over the other students."* Instead, they worked out a system of repetition as necessary, if she could not understand the tape, and the instructor did not mark Yvonne on any words that she did not hear.

Yvonne: She reads it very slowly and, sometimes, there is that expression on my face that tells her, "Could you repeat that?" She will repeat that for me and I will write it down. Usually when I couldn't hear a word....I just put an underline that means I don't understand the word she is saying. She doesn't give me a mark on that one.

Gayle ran into difficulties with her French exam, during which she had to repeat words and couldn't hear all of the video. She decided not to request re-consideration because it would have involved time, energy, and aggravation.

Gayle: I have been going university for six years now and so I don't really want to fight anything because it's difficult to move through. There are a lot of barriers within a bureaucratic institution from wanting to, say, to do a re-test for a French text. [They would say] "Well, if I give you a re-test that means that everybody has to do a re-test." But, yet, they are not really taking into account the differences of people's experiences.

Other students spoke of getting an exemption from marks being provided for class participation. Ben successfully argued that his hearing loss prevented him from being able to take part in class discussions. However, it took four months for the change to be made. Ben found that it was *"a touchy situation."* There were no examples cited where the student

received deductions for literary style or consideration for grammatical or spelling errors which, for some students, may arise out of language difficulties related to their hearing loss.

Only one of the 14 students received additional time for examinations based on his hearing loss. The student, Charlie, received an additional 30 minutes for his exams; he required additional time to check his understanding of the wording on the exam and to correct any mechanical writing errors.

Mark had requested additional time but had not been granted it. In high school he had always been given an extra half-hour on his final examinations and he had expected the same at university. He learned to live with not having the extra time but felt he was at a disadvantage.

Mark: It could be beneficial for me to have an extra half-hour, especially in the case where the Prof is from another country. It may be helpful to have an extra half hour so if I miss anything I then can sort of work around it because sometimes it's harder for me to make up for what's missed during class. Sometimes, it's very difficult for me to know if I have missed anything cause I don't know.

Mark further explained his rationale for requesting extra time on exams.

Mark: It's very hard to explain. If I missed something I have to reformulate my whole answer. Sometimes, I might have missed something so I have to really sort of delve into my other knowledge in order to create one answer or a new answer.

Jennifer felt it would have been beneficial to have extra time, but she had not been aware that this was an accommodation she could request. She felt that her grades from exams did not reflect her knowledge or ability.

Jennifer: I have always been very weak in my exams. I have always been a good student, participate well and do very well in my assignments, but when it comes to exam time, I have always dropped my grades drastically. Many times I have instructors say, "What happened?" Exams are a weakness for me. I feel like the time pressure. I am not a speedy reader compared to my colleagues.

Several students did not feel that they required additional time during examinations and would not want it. As mentioned previously, James had one professor who offered him additional time and the opportunity to write the exam at the DSO, but James refused. *"No, I wrote same as everyone else...I am glad I had. I have tried to be like everyone else. I have tried to be entirely verbal rather than with sign language. It's important to me to integrate."*

Classroom Captioning

Two students have tried captioning while at university, one who liked it and one who did not. In addition, four other students stated that they would like to try captioning. One student has tried captioning at college prior to coming to university. The other students had never had classroom captioning and did not feel they had a need for it.

There are two types of captioning. Real-time captioning involves a specially-trained court reporter using a steno shorthand machine connected to a computer with software that translates the steno shorthand into a written verbatim account of a verbal exchange. The information is displayed to a student on a laptop computer, a TV monitor, or large screen. Use of this technology enables the captionist to reproduce text at the rate of human speech, up to 250 words per minute. The other type of classroom captioning is real-time notetaking involves a typist who uses a regular computer keyboard. The typist usually summarizes

content and is able to go up to 120 words per minute. Both types of captioning involve costs for paying for a captionist; costs are absorbed by the university or grant.

A couple of students who expressed interest in captioning mentioned that they had been deterred from its use because of its cost. At University Z, Charlie stated, *"I have asked about it. But it's too expensive."* However, at University Y he was provided with real-time captioning in class and found it so helpful that he asked the captionist to caption while he watched course-related videotapes. Here he ran into a difference of opinion among staff at the Disability Service Office. One staff member told him he could have the videotapes captioned, but another staff member stated that this was not possible. However, as explained by Charlie, the matter became more complicated because the videos were of him practicing counselling with a client. Issues of confidentiality arose and Charlie found himself involved with a number of conversations over the issue. He noted that he felt very frustrated and angry and that there was a lack of understanding of his hearing loss. He was not able to complete his assignment, which involved transcribing a portion of the video. Ultimately, he withdrew from the class.

Rachel did not have captioning in university. At college, prior to coming to university, she had planned to have real-time notetaking, and had it for one class, then the captioning equipment was stolen. The process of getting replacements took so long that she did not get captioning. Rachel stated that if she had captioning for her classes she would have been able to participate in discussions more fully. *"I think if I had it for all my classes I would have been able to participate in class discussion and stuff."*

Darcy had real-time notetaking for a few classes, but decided that he did not like it. He preferred to take his own notes, indicating that he found it more useful as a notetaking system than for getting access to the spoken word.

Another student, Carol, had requested captioning at her university, University X, and was informed that because it had never been offered at the university before, the university had to sort out funding issues, as well as define pay grades for the captionist. *"There was trouble trying to get that worked out,"* Carol noted. *"It's funny because I heard all these good things about University Y so I made the assumption that it would be the same up here, and it is not."* Carol had met with a student at University Y who had let her sit in on a class during which she had a captionist, so that she got some idea of what it was like to use captioning.

Mark had seen real-time captioning at a conference of persons who are hard of hearing but still was uncertain about what it involved. He was under the impression it would caption just the instructor's voice, which he was able to hear; it was really the students' voices that he needed to access. *"I can hear most Profs because I am facing them, but the student part of it I don't. I don't really face them all the time."*

Another student, Jennifer, had never heard of captioning until coming to university. By the second interview, she stated that she was giving thought to trying it but was undecided.

Jennifer: I think I don't want to stand out too much although I've been thinking, "Why not? It's there. They do have the additional funding. Sorry, if they go through trouble to find somebody, but I need to make this the best learning experience of my life too."

Jennifer was asked if she would be hesitant about using captioning under other circumstances. *"I think if I were deaf, I wouldn't be able to be in a classroom unless I have*

that, therefore it is my right and I want it," she stated. But, being hard of hearing, Jennifer felt hesitant about the use of the service.

Jennifer: I can really try to hear. I can try harder. I can get by. It's just a little bit. Would they believe I need it? Would they believe I am hard of hearing enough that I really feel I need this?

Gayle also felt that she would need to use captioning only if she had a profound or severe hearing loss. Ben did not like the idea of captioning because *"It singles you out from the rest of everyone else. I want to be the same as everyone else in that sense."* Ben was then asked how much he heard of what goes on in the classroom. *"From the teacher, maybe 40%, maybe less,"* he responded.

Yvonne had heard about captioning in the classroom but had never actually used it and felt it would not be something she would use for upper-level classes. As well, she was not keen about the extra administration involved in having captioning.

Yvonne: It would be more useful for, say, first-year courses because the classes I am taking now in third year and next semester, fourth year courses, are small. They are in classrooms that wouldn't be conducive to having a computer screen on the wall. It seems a bit of a hassle actually.

James had discussed captioning with his DSO Coordinator but had decided to see how notetaking went before considering getting a captionist. *"If I find it's not working or there is something else that is sufficient or whatever, then we can consider that. But, I haven't seen any need for a captionist."*

Sign Language Interpreter

None of the students used a sign language interpreter and only three of the students knew some sign language; all three of them were in a program to train teachers of students who are deaf and hard of hearing. None of them claimed to be fluent in sign language, which is not surprising because use of sign language is not widespread among persons who are hard of hearing. Jennifer, stated that she was fascinated with learning sign language and while she had thought of using it, she was not sure about it. She was also discouraged from its use by being told that it costs a lot of money to obtain an interpreter.

Jennifer: I have given thought to signing interpreting although for me it will have to be Sign English and not ASL because I am still not fluent in American Sign Language so it will have to be with the flow of the conversation... I have been toying with the thought; I know there is a lot of money involved. The service coordinator in the Disability Office in general said, "It cost so much to find an interpreter."

Yvonne was also discouraged from learning sign language, but for different reasons than Jennifer faced. As a child, Yvonne encountered concerns that it would impact on her development of oral skills. *"When I started learning sign language, she [a teacher] was afraid I would want to stop talking and do sign language."* She would like to learn it now but it would not be her main means of communication. Most of her friends are hearing people and she communicates with them in speech.

Ben and Heather also expressed an interest in learning sign language when they had more time but have no need for it as their communication means. Ben stated, *"I thought about taking up sign language in my spare time, something to learn. I haven't had a need."*

Oral Interpreter

Only one student, Carol, had used an oral interpreter. Oral interpretation involves an interpreter silently forming parts of words on his or her lips. Carol's oral interpreter was not actually a trained oral interpreter but, rather, someone trying to fill the role. Carol had not found it satisfactory because the person whispered what was said, which Carol could not hear.

Yvonne felt that she didn't need an oral interpreter in university because she had a notetaker. However, she felt that there might be other situations where it would be useful such as conferences. *"Sometimes it would be nice to have an oral interpreter. I have never asked for one,"* she said.

Quite a number of the students had never previously heard about oral interpreting. Even so, some were not inclined to have an oral interpreter. Sarah said that she had been informed that speech reading captures little of what is actually said, and so she was sceptical of whether an oral interpreter would help her.

Sarah: I never even knew about oral interpreting until I started this Masters program. It's very different. I don't know... For some kids it works but I have a problem with it. We've been trained that when you speak without sound you only see very little and everything looks the same so I have to wonder. And, also the interpreters they're not saying verbatim what the teacher is saying. They're breaking down the language so with speech reading you need the voice and the whole thing. I don't know.

She also felt that there was a lack of training programs for oral interpreters and that this hindered their effectiveness. If there was a supply of well-trained oral interpreters, then use might be different, she concluded.

Registration

Sometimes universities allow students who need to ensure that captionists or interpreters are available at the desired time, to register slightly ahead of other students. Four students indicated they had priority registration. Being a first year student, James's marks were sufficiently high that he was already entitled to register early, and so did not require priority registration on the basis of a disability. Mark had asked for priority registration, but was not granted it by the DSO of his university. For other students, priority registration was either not an issue or they had never heard of it.

Seven students registered through the University's automated telephone registration system. Several students reported problems with this form of registration. Ben noted that he could not hear the numbers correctly, and, so, he went to his academic advisor, who registered for him. Jennifer had a friend do her registration for her. Yvonne registered through the DSO because she can't hear on the phone. Although he uses the phone, James had his mother do the registration for him. *"No way I am doing the thing over the phone...it's too important if you make a mistake. Very difficult to correct."*

Rachel had major problems registering by the university's telephone registration system, so to get around the problem she faxed her list of courses to the faculty. Because she had not received a mailed confirmation, Rachel phoned them about her registrations and found out that they had not registered her. She was wait-listed for courses and eventually let in all her courses after meeting with a faculty advisor. As mentioned, the experience put Rachel to the brink of leaving school. *"I was very irate and I was ready to quit."*

Not all students found it a problem to use a telephone registration system. Ann said that for her, *"It wasn't a problem. The voice they use is really clear."*

With the recent implementation of registration through Internet, five students used this means of registering for courses and found it took away hearing woes. Yvonne noted that registering on-line meant she could register for courses herself. *"I used that to drop a course and add one this semester; it seems quite useful."* Ben was also now using electronic means to register and stated, *"Internet is perfect."*

Room Changes

Although some universities will change rooms for students based on acoustic quality, most students were unaware of this and even when aware, were not inclined to seek a room change. They perceived that it would be too much of a change or else it would inconvenience an entire class, and so they would rather bear the distress of an unsuitable room themselves. Mark summed up the feelings of a number of students when he stated that he didn't think he would request a room change. *"It's too much of a hassle to move the whole class to another room. I probably wouldn't do it."*

Films and Videos

Most videos and films required as part of the course curriculum were difficult for study participants to understand. The problem was further exacerbated if the sound quality was poor, which Kathy said was typical of the tapes she listened to. Rarely do these materials come with captions; as noted by Carol, *"A lot of the films that they show, first of all, tend to be older films."* She also noted that the television sets do not tend to have built-in decoders, as

is the case with new models. *"The TVs they have are not new. They tend to have a pre-1990 TV."* Gayle also recounted difficulties with films. *"The films we watch in my French class are not subtitled, thus it's very difficult to decipher what is being said."*

Carol dealt with the problem of access to the video or film by having a notetaker in class take notes of the program. Some students took the videos home to replay frequently to improve comprehension of them. Darcy would not be able to follow the film in class but he would *"simply go out and rent what was available from the video store and watch it at home with my closed captioning."* As a result, though, he avoided taking courses that involved a lot of film and videos. Only Mark found that videos were not a problem for him, but he had had to watch only one 10-minute video, and he was able to hear all of it.

Summary

All of the students in the study had been identified through a DSO. Most students rated DSOs as quite important for their support services, such as notetaking; their staff, with whom students could discuss difficulties and strategize solutions; and, finally, their role in resolving a student difficulties. Some students felt the office was important even if they never used some of its functions; the fact that it was just there for them was sufficient for some students. Two students who gave DSOs low ratings felt they had not received much help from the office.

The services most frequently used by students were notetaking and tutoring, respectively. Classes in which students had difficulty understanding the instructor were particularly important for students to have notetaking services. Lecture-type classes tended to

be more important for getting notes than were discussion-based classes. Some students felt that having notetakers freed them up to concentrate on the subject. On the other hand, those students who took their own notes felt that they reinforced their learning by taking notes.

Five students used an assistive listening system such as an FM system, which they found was most effective for lecture-style courses. Three students encountered professors who refused to wear their FM systems, one in high school and two at university. In one case, the instructor simply lacked sufficient information and changed his position quickly when he acquired the knowledge. The other two cases required intervention, and the process took an emotional toll on the students who were involved.

Other beneficial technology was hearing aids. Two students had never had a hearing aid prior to their academic studies; they were able to receive funding for their hearing aids but were exceptions. Most students had to pay for their hearing aids because they are considered personal devices, unlike ALDs. When students' hearing aids temporarily broke down, students could experience significant hearing problems at university. One student went without a hearing aid for two months.

In terms of the types of exam accommodations required most frequently, students referred to the need for instructors or exam invigilators to write down any verbal changes given to the class. However, students didn't always find that information was written down and the process of requesting exam modifications was so onerous that they usually shied away from pursuing such requests. Only one of the 14 students received additional time for examinations based on his hearing loss. Most of the other students did not feel that they required additional time, and when one of them was offered it, he refused it. In addition, students sometimes required that their grade not include class participation, and asked that

verbal portions of language examinations be modified to take into account their hearing difficulties.

Only two participants received classroom captioning in university and one student tried oral interpreting. None received sign interpreting services. In some cases, institutions lacked the resources to provide some services, as was the case with captioning at two of the universities. Room changes for acoustical reasons were rare, and few students required early registration.

Overall, students participating in the study were generally low service users, with two or three students being exceptions. Students were anxious to be independent, to avoid inconveniencing the university, and possibly to be no different than anyone else. These reasons are consistent with identity dimensions of these students, whereby a hearing loss is an invisible and often downplayed disability, even by those who have this special need. These underlying dynamics reinforce the possibility that students with hearing losses may be visitors to the classroom, rather than being full participants.

CHAPTER EIGHT

DISCUSSION OF IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to understand the nature of the university experiences of students who are hard of hearing. For this purpose, Tinto's retention model (1987) was used as a framework for examining the academic and social experiences of students. The model provided descriptive categories for identifying a range of academic and social issues faced by students, with consideration for their level of commitment and individual background characteristics. To deal with a drawback of the model, namely, emphasis on the individual as an independent actor, the concept of agency-structure nexus was used. Based on Bourdieu's (1984) theory of field of forces, an agency-structure nexus recognizes that there is a dynamic tension between individuals and an institution, and offers a way for examining underlying structures which affect students.

A wealth of research has shed light on the experiences of students in higher education and issues pertaining to their retention. However, most of the findings have pertained to students in general, and little has been conveyed about students who are hard of hearing. This study has endeavored to fill that gap by considering eight research questions:

1. How do participants define themselves in terms of hearing loss?
2. What transition-to-university issues do students who are hard of hearing face?
3. What are the academic experiences of university students who are hard of hearing?
4. What are the social experiences of university students who are hard of hearing?
5. How does being hard of hearing impact on students' academic and social dimensions of university life?

6. To what extent, and in what way, do disability-related supports and issues impact on the experiences of students who are hard of hearing?

7. To what extent are the experiences of students who are hard of hearing similar or dissimilar to those of other students?

8. How do the findings inform existing research models about the retention of university students?

Fourteen students who are hard of hearing participated from three universities in the same geographical area. They ranged in age from 18 to 58 years; 11 were single and 3 were married or in common-law relationships; 9 were female and 5 were male; and 11 were undergraduate students and 3 were graduate students. The area of study was Arts for 5 students, and Education for another 5, with the rest in Science, Social Work, and Commerce. The audiology profiles of the students varied from mild to profound hearing losses, with a third having severe-to-profound or profound losses and a third having moderate-to-severe losses.

Study participants were interviewed twice, initially in the fall, 1999, and again in the winter, 2000. During this time, students were asked to write journal entries of their experiences, both positive and negative, over a three-week period, and 11 did so. Data from the interviews and journal entries were analyzed and divided into five subject areas, dealing with identity issues, transition, academic experiences, social experiences, and disability support services. These areas were reviewed and findings were discussed in preceding chapters.

In this chapter, the most significant findings from the research will be discussed and key implications for theory and practice will be articulated; in particular, considerations for

retention theory and retention models will be considered. Recommendations for future practice and research will be identified.

Central Findings

Central findings are organized under eight headings pertaining to each of the research questions framed in this study.

Identity

Research Question 1: How do participants define themselves in terms of hearing loss?

Most of the students participating in my study identified with being considered hard of hearing, which they tended to define in comparison to hearing people on the one hand, and deaf persons on the other. They most frequently identified themselves as being like hearing people, with the exception that they could not hear as well. They considered themselves different from persons who are deaf because they had some hearing. Furthermore, they distinguished themselves specifically from culturally Deaf persons based on non-use of sign language and not being part of Deaf culture. Some students who are hard of hearing felt that they did not belong in either the hearing or the deaf world, and that they were “in-between” as has been described by Lutes (1987) and Warick (1994b).

Part of a hard of hearing identity is to be as much like hearing persons as possible. Just as those students studied by Israelite et al. (2002) aimed to “talk and act like hearing students” (p. 141), the students in this study endeavored to fit into university the same as other students. Israelite et al. noted that this means that students seek to be like the dominant hearing group and to reduce the distance between themselves and the sense of being other by

emphasizing similarities between themselves and the dominant, hearing group. Taken to the extreme, this means that students are disposed to minimize the impact of their hearing difficulties, so that they will be like others. One of the students demonstrated this when she advised that a successful coping strategy was to not worry about missing out on what other students said. On one level this makes sense insofar as it reduces the stress experienced by the individual, but on another level it means that components of what is occurring in the classroom are being missed and no action is being taken to change the situation. This example illustrates how the identity dimensions of being hard of hearing affect the quality of a student's educational experience.

Some of the students participating in the study eschewed any use of labels, preferring to be considered a person and not as someone having a disability. They wanted to be considered the same as everyone else. Three students identified diagnosed dual disabilities, but only the student who was also legally blind considered that part of her identity. Students who had mental health conditions did not define themselves as such, and, instead, being hard of hearing was their primary identifier. There may be any number of reasons for this, including lack of social acceptance of mental health conditions. It may also be partly due to the fact that the mental health conditions for these students were active and inactive at different times, whereas their hearing losses were a constant in their lives.

Transition

Research Question 2: What transition-to-university issues do students who are hard of hearing face?

The transition experiences differed for participants in the study because they had different entry points to university; four of the students entered university directly from high school, five of the students went to college first, two had been at another university, and two entered from non-educational settings. Students entering from high school directly experienced the most difficulties making the transition to university, experiencing reduced grades and adjustments to a university culture in which students are expected to be independent. This reinforces the view that the first year of university is the most critical transition year for students and supports findings in the literature about first-year experience (Andres, 1992, 1993, 1996, 2001; Astin, 1975, 1984, 1993). A drop from grades achieved in high school alone can derail students' academic careers unless they are psychologically prepared for it, and, in the case of an extreme drop in grades, able to take corrective action. Fortunately, the students in my study were able to adjust their expectations and, in the case of one, change her approach to university to improve her academic standing.

The students in my study faced the same kind of transition issues as other students, such as adjusting to a different type of institutional culture. However, they also faced unique challenges related to their hearing losses. They needed to take into account the disability accommodations available to them at a new institution and to become familiar with the institution's service delivery staff and practices. Furthermore, they required such information in advance of arriving at university; otherwise, their decision-making about choice of an

institution may not have matched their needs. One student arrived at her university expecting that classroom captioning would be available for her because another institution provided it, only to discover that was not the case. She managed to carry on without such an accommodation, but her experience with support services fell short of her expectations.

Academic Experiences

Research Question 3: What are the academic experiences of students who are hard of hearing?

Relationships with Instructors

Instructors are central to a positive learning experience for students with hearing losses. A positive relationship with instructors promotes course completion and academic retention (Pascarella & Terenzini, 1991; Tinto, 1982). Besides formal contact, informal faculty contact is important for encouraging retention (Pascarella, 1980). This is the case for students who have hearing losses, just as it is for all students.

In one respect, the nature of faculty interaction is different for students with hearing losses than it is for other students because of the additional communication challenges and students' accommodation needs. For example, instructors need to face the class when providing verbal information, rather than looking down at papers or speaking while writing on a blackboard. As well, there may also be additional accommodations that instructors need to provide, such as writing out any verbal instructions during examinations or providing copies of their lecture notes to students.

When students who are hard of hearing feel instructors are receptive, they are more likely to self-disclose their disability and to negotiate necessary disability-related

accommodations, such as for accommodated exams and copies of lecture notes, than if they feel instructors are not approachable. They are likely to remain steadfast in their academic pursuits if they feel welcome in the classroom. Furthermore, as a result of receptive attitudes, students who are hard of hearing are more likely to seek one-on-one discussions about course content with instructors than if they find their instructors to be intimidating.

Most students in my study described their interactions with faculty as being positive. However, students also discussed the lack of understanding of their hearing losses and the lack of attention to their needs on the part of a few faculty members. Students perceived that instructors were extremely busy and had limited time for student interactions. This was particularly felt to be the case for faculty instructing large classes.

Supporting findings from Hawkey (2000) upper-year students were more likely to have faculty contact than first- and second-year students. Hawkey found that upper-level students had more of a connection to their discipline than did first- and second-year students and, in some cases, they had a faculty mentor. These dynamics were particularly prevalent for the three graduate students in my study who were in the same masters program for educating teachers of students who are deaf and hard of hearing. Furthermore, because of the nature of the program, these students expected and found that their instructors were sensitive to their hearing-related needs.

Academic advising also appeared more utilized by students in upper levels or in the graduate programs. Furthermore, those students who had assigned academic advisors were more likely to seek academic advising than students without advisors.

A few students had discriminatory or extremely negative experiences when interacting with instructors. In one case, a faculty member refused to wear an FM transmitter required by

the student to amplify sound. In another case, a student taking a distance education course was unable to hear the instructor and was refused a request to be provided the information in writing. In a third case, a student was refused acceptance into a work study program of the faculty because of the quality of his speaking voice. There were severe consequences for the students in each case: withdrawal from the course, failure in the course, and denial of a learning opportunity, respectively.

Distance Education

Distance Education was not a substitute for classroom learning for 12 of the 14 students taking part in this study. They did not consider it an alternative to classroom learning. They preferred being in classes with other students, regardless of how difficult it was to hear classmates and instructors.

Only two of the students in my study were taking courses by distance education. Although this option was chosen because it lessened hearing difficulties, for one of the students being far away from campus was also a factor in this choice. However, despite the expectation that distance education courses would reduce hearing difficulties, both students experienced some hearing challenges; telephone conversations proved difficult in one case and video tapes were not captioned initially, causing delays in getting classroom material. Thus, some caution needs to be exercised in relation to expounding distance education courses as the solution to overcoming in-class hearing difficulties for students who are hard of hearing.

Goal Commitment

The commitment of students to staying in school is important to completion (Hackman & Dysinger, 1970; Tinto, 1982). The retention model depicts a link between a student's GPA and commitment, while recognizing that a student's expectations play a large part in acceptance of GPA results. Thus, a student does not necessarily need to have a high GPA to be committed to university, but does need to feel that the grades received are in accordance with expectations. In my study, the level of commitment of participants seemed unconnected to their grades. Students with lower grades expressed a commitment as strong as those with higher grades, as long as it matched their performance expectations. As well, students who had hopes of improving their grades could accept low grades as an interim step to better performance. If they were encouraged by their instructors, low grades were viewed as a temporary state; these students anticipated improving their grades and, therefore, were motivated to continue with their studies.

My findings support the contention that goal commitment is related to expectations. However, an additional factor at play for these students was an ability to handle adversity. Students noted that their experiences with handling the difficulties of their disabilities built up their internal capacity to handle difficulties encountered in university. They demonstrated exceptionally high levels of commitment to persisting in university, even in the face of severe difficulties or, in some cases, with having to contend with double disabilities or other factors.

However, at times, even positive personal attitudes were insufficient to overcome difficulties. Three students would have been drop-out statistics if it were not for substantial program adaptations and supporting personnel. Two of these students faced discriminatory

practices. In one case an instructor refused to wear the transmitter of a student's FM system. This discriminatory behavior, combined with other difficulties, resulted in the University refunding his tuition and giving him a fresh start for the following year. This result occurred after the intervention of the University's Disability Services Office coordinator; that intervention was essential to this particular student's retention. In the second case, a disability service provider external to the university was pivotal to the student's success. For the third student who was at risk of dropping out after doing poorly in two tough courses her first term, direct intervention by her academic advisor turned the situation around. This student was so discouraged and fearful that the rest of the program would be the same that she contemplated exiting from it. Her advisor restructured her full-time program to enable her to take it on a part-time basis.

As noted, in two cases, there were programmatic changes to the institution's usual way of doing things. In other words, there were structural changes that did not compromise the academic standards of the university. This suggests that, for some students, simply making programs and processes equivalent is insufficient for their retention. The institution needs to go beyond, to look at its own structures and processes. In this respect the agency-structure concept has meaning. The individual as agent is engaged in a struggle within the institution and is reshaped by the institution; at the same time, the institution is reshaped by the individual.

Social Experiences

Research Question 4: What are the social experiences of students who are hard of hearing?

In keeping with findings of Bean and Metzner (1985) and Metzner and Bean (1987) about the differences between younger and older students, I found age-related differences, particularly in students' social engagements. Older students had little inclination to be involved in campus activities, whereas younger students viewed such engagements as part of their reason for being at university and part of an adult developmental stage. The younger students were much more socially active and involved than their older fellow students. Younger students, aged 18- 24 years, tend to be referred to as the traditional university population. The non-traditional label usually refers to students, aged 25 years and older although it may also refer to students who are part-time, commuters or different in some aspect such as socio-economic status (Bean and Metzner, 1985).

In one respect, study participants, regardless of age, had responses similar to certain social environments based on their hearing losses. All of them avoided certain venues, such as cafeterias and bars, because of the noise levels of such environments that made hearing human conversation difficult. So, although younger and older students differed in their social patterns, they were similar in responses to certain social milieus.

Regardless of age, students taking part in this study exhibited another similarity in that they experienced disadvantages in forming attachments in certain environments. They could not readily hear other students for purposes of informal chats in class, hallways, and stairwells; in the daily routes navigated from class to class; and in similar noisy environments. Nonetheless, they sought social engagements in alternate ways. They took the formal route to establishing social connections. They joined campus clubs and activities, and all six younger

students were involved in athletic activities. This is not to say that hearing difficulties did not occur, but the nature of many of these activities was structured; the rules of engagement were more likely to be known and students were able to adapt to them. Furthermore, the socially-active students considered social engagement as one of their reasons for being at university and, therefore, were highly motivated to participate in sports or other activities, regardless of any hearing difficulties.

Impact of a Hearing Loss

Research Question 5: How does being hard of hearing impact on the academic and social dimensions of university life for these students?

The impact of the hearing loss was not necessarily the same for all students, given that each person is a unique individual, but there were several similarities for most participants. A common difficulty was in attempting to hear classmates, supporting literature findings on the subject (Schein, 1991; Warick, 1994a). Whereas most students were able to overcome difficulties hearing instructors through use of various strategies, these strategies, such as sitting close to an instructor, were unrealistic for hearing classmates.

Difficulty in hearing other students in class created several problems. Students who are hard of hearing missed the contributions of other students and their own ability to participate in class discussions was affected. Not hearing other students meant that they were uncertain when to make a contribution themselves; they lacked the context to easily take part in classroom discussions. Another factor, “conversational lag,” a term coined to describe the lag in hearing that Deaf students experience when using an interpreter (Antia et al., 2002; Foster et al., 1999; Stinson et al., 1996; Walter et al., 1987), affected class participation.

Students who are hard of hearing experienced conversational lag for different reasons than Deaf students, namely, to process sound and fill in missing gaps of verbal content. Because of mentally processing spoken content, listeners who are hard of hearing frequently play catch-up with the conversation (Secord, 1999; Warick, 1998, February). If words in the conversation are missed, these listeners draw from the context and their memory to fill in gaps.

Students in my study spoke about their difficulties of getting into the conversation, and, at the same time, they identified strategies to overcome them. One of the most helpful strategies was for the instructor to require students to raise hands and carefully control the discussion; however, this strategy was infrequently employed in classes. Thus, students with hearing losses were often placed in the position of being visitors in the classroom rather than being a member. A visitor is not able to participate in classes and is left out of being a member of the classroom and school community (Antia et al., 2002). However, this analogy does not apply in terms of schoolwork; students were expected to meet the academic standards of the school and this was certainly the case with my participants.

Students who are hard of hearing sought to minimize the extent to which they were in the visitor role by choosing classes based on type, namely, lecture-based classes rather than those emphasizing discussion. The choice was a necessity, not a preference; several students stated that they preferred discussion-type classes, but heard better in the lecture classes.

In other ways, the nature of students' academic experiences was different because of their hearing losses. Students often selected a class based on the instructor's speaking voice. They would check with academic advisors and other students to gauge the situation and would avoid a course if they had heard that the professor was difficult to understand.

Instructor selectivity was not always possible because a course may have been required and there was only one offered. Another selection process related to hearing loss was choosing a class based on the type of classroom in which the class was scheduled. Although in general university classrooms were considered poor acoustically, students were attuned to which venues were better listening environments than others, and they sometimes factored this into their course selection decisions.

Students with hearing losses also chose where they would sit in the classroom based on their need to hear, this usually being at the front of the class. It is a different experience in a classroom to always have to choose to sit in the front or near the front of the class than to be able to choose anywhere to sit, based on friendships formed or other reasons.

Another difference from other students was that a number of students with hearing losses took a reduced course load. They needed to limit the number of courses taken to have the time and energy to deal with the extra demands and stresses they faced due to their hearing losses.

A few students found that the way that they learned was affected by their hearing losses, and it was not until they attended university that they realized this. Several students said that they had had to shift their learning style from relying on the written text to paying more attention to the verbal. While relying on textbooks had been possible in earlier forms of education, at the university level, this was often not possible because of the emphasis instructors placed on their lectures.

Disability-related Experiences

Research Question 6: To what extent, and in what way, do disability-related supports and issues impact on the experiences of students who are hard of hearing?

Use of Disability Services

With a few exceptions, these students were low users of disability-related services, a conclusion also made by Killean and Hubka (1991) as a result of their research. . Only three students used three or more disability services; double that number, six students, used one or fewer services. The low use of services may relate to the identity of wanting to fit in and so not be viewed as different from other students by use of services. Alternatively, it could relate to the ineffectiveness of the service itself, or the student may have been able to cope quite well without accommodations and supports.

The service most frequently used was the relatively low-tech and low-cost service of notetaking. High technical services such as classroom captioning were rarely used, partly due to an institutional reluctance, in some situations, to pay for the cost, as well as student lack of awareness of this type of accommodation. Students had a range of experiences with obtaining services, from positive to negative. Negative situations were when they were either denied a service, such as the case for students who went without notetaking or exam accommodations, or experienced long waits to obtain a service, such as for an assistive listening device. Several students found their most needed accommodation were hearing aids, and were able to get them provided at no cost. The impact on students when services and accommodations were provided was to lessen their hearing and learning difficulties. When one student got her hearing aids, she was finally able to hear her professors and sometimes other students; she

was in her fourth year when she got the hearing aids, having already spent several years without them.

Although disability services and supports reduce hearing difficulties and enhance the quality of the learning experience, their provision does not mean that students are able to fully overcome the effects of their hearing disabilities. Stinson and Walter (1992) noted that there is a misconception that the provision of accommodations equalizes the learning environment. For example, Deaf students still have communication difficulties in receiving information, participating in the class, and being socially engaged. Yet, there may be a perception by others that some measure of equality is occurring. It seems that students who are hard of hearing may be faced with similar dynamics. For many of my study participants, the provision of accommodations did not take away from the difficulties they experienced; communication difficulties persisted and sometimes resulted in social and educational isolation.

Disability Services Office

Because the participants in this study had been identified through a Disability Service Office, for the most part, they were familiar with the Office. Students tended to rate the DSO as important to them, even when they did not personally use it themselves or, in fact, may have not had an entirely positive experience with the Office. On balance, they felt more comfortable knowing that the DSO was there because it was a place to turn to for discussing disability-related issues and because of its capacity to act on students' behalf when situations required intervention. In such cases, students viewed the Office as a resource for dealing with any difficulties experienced with the rest of the university, particularly the academic side. These findings suggest that DSOs are important components of enhancing academic success

and quite likely aid in the retention of students. In fact, at least one student would have been a drop-out statistic had it not been for the intervention of a DSO coordinator.

Comparisons to Other Students

Research Question 7: To what extent are the experiences of students who are hard of hearing similar or dissimilar to those of other students?

As discussed under the identity question, persons who are hard of hearing often seek to be like others although they are different. This dynamic creates a duality of experiences. Thus, students who are hard of hearing are both similar to other university students in many respects, and, also different from other students. It is not contradictory that these two dimensions co-exist because individual experience can be affected by a multitude of factors.

In terms of similarities, students appeared to experience university in the same way that other students experience university, depending on their previous life experiences, their expectations, their identity, the nature of their program, and the nature of their university. Although there is considerable variation among students who are hard of hearing, the participants in this study exhibited some general patterns found in studies of other university students related to age, year of study, and type of program. They also had similar experiences with respect to transition into university, initial change in grades, academic advising, and social activities. Thus, in many respects, this study reinforced research findings about students in general, namely, that they experience transition difficulties (Andres, 2001; Andres et al, 1996); their grades often drop in the first year of university (Andres, 2001; Andres et al, 1996); academic advising is important but not always available (Crockett, 1985; Guppy &

Bednarski, 1993), and social experiences vary according to age (Bean & Metzner, 1985; Metzner & Bean, 1987).

At the same time, students with hearing losses were different from other students. They differed in how they choose classes, by taking into account whether they would be able to hear an instructor or in a particular classroom. Another factor in class choice was the nature of the class, namely whether it was lecture-based or discussion-laden. Once in a class, seat choice was influenced by hearing loss. The study participants also had different levels of participation in the class than other students based on their ability to hear. Their ability to participate in informal conversations was impaired due to hearing difficulties, and certain types of social milieus, such as cafeterias and coffee places, tended to be avoided. Students with normal hearing do not face such constraints.

Retention Models

Research Question 8: How do the findings inform existing research models about the retention of university students?

One of the research questions for this study considered whether theoretical models on retention explain the experiences of students who are hard of hearing and, if not, what modifications need to be made to incorporate disability-related dimensions related to students who are hard of hearing. Insofar as students who are hard of hearing are like other students, retention models are applicable to them and provide a useful descriptive framework. However, students with hearing losses also have unique dimensions unlike other students; their hearing disability impacts on their academic and social experiences in ways that are not explained by retention models. Thus, disability-related dimensions need to be added to

theoretical frameworks about the retention of students in university. Although disability-related dimensions are an integral part of existing academic and social factors, it would be useful to spell out various factors so that full attention is paid to them. In this respect, one would apply a disability lens to academic and social domains, as well as consider its impact in terms of background characteristics.

Table 12, on the next page, provides an outline of various factors for consideration under background characteristics, and academic and social domains. Taking a look at background characteristics, an individual's disability has an impact in terms of identity, prior experiences with disability support services, learning style and subject mastery. The addition of these dimensions would recognize that students who are hard of hearing are not just like other students, but, in fact, have an identity and have needs related to their disabilities.

With respect to the academic system, in Table 12, there are five areas for considering disability-related factors pertaining to students who are hard of hearing: (1) disability-related support services, such as notetaking, tutoring, and technical services; (2) academic disability-related accommodations such as exam accommodations and course substitution practices; (3) nature of the physical environment, including the acoustics of the classroom; (4) style of communication of the instructor, and (5) attitudes toward disability. For example, under style of communication, one would consider whether the classroom management practices encourage all students to be involved in discussions.

Under the social system, the impact of hearing in social environments such as cafeterias and sporting venues would be included, along with considering the formation of networks and friendships, acceptance by peers, and inclusion in informal activities.

Table 12

Disability-related Factors for Retention Models

Background Characteristics

- Academic entrance standing
- Identity and disability
- Experiences with disability support services
- Content deficits
- Learning style

Social System

- Ability to communicate in social contexts
- Access to the social environment (e.g. sporting events)
- Impact on ability to form networks and friendships
- Acceptance by peers
- Inclusion in informal activities with classmates

Academic System

- Style of communications
Instructor communication and availability
Opportunities for inclusion
 - Attitudes of others toward a disability
Instructors' attitudes
Students' attitudes
Other university community members' attitudes
 - Provision of disability-related support services
Notetaking, tutoring and other support services
Supportive staff
Technical supports (e.g., hearing aids)
 - Provision of academic accommodations
Exam accommodations
Deferral of courses
Language exemption
Copy of instructor notes or overheads to students
Taping of lectures
Policies for reduced class load
 - Nature of the physical environment
Good acoustical classrooms
Size of the class
-

Implications and Recommendations

Theory

Habitus

Throughout this thesis the impact of a hearing loss in post-secondary education has been central. Most participants saw themselves as being hard of hearing. However, this was not their entire existence. They also saw themselves as students, male or female, athletes and workers, and they did not define their entire existence by virtue of being hard of hearing. Nonetheless, it has been identified that some of their academic and social experiences were related to having hearing losses. There were impacts on how students organized their actions and structured their conditions of existence. There were influences on how students acted and responded to the university world. Thus, there were significant impacts arising from being hard of hearing that influenced the ways in which study participants responded to the academic and social components of university life. These impacts have not previously been identified in the literature for students who are hard of hearing in any significant degree, and they merit further attention by researchers in order to understand the university experiences of students who are hard of hearing.

It also warrants consideration as to whether the influence of a hearing loss has sufficient significance to be considered habitus. Habitus is defined as “a way of being, a habitual state (especially of the body) and, in particular, a predisposition, tendency, propensity or inclination” (Bourdieu, 1977, p. 214). Habitus organizes the way one acts and perceives actions, and also provides a way of structuring conditions of existence (Bourdieu, 1984). According to Bourdieu, habitus is “not only a structuring structure, which organizes practices

and the perception of practices, but also a structured structure: the principle of division into logical classes which organizes the perception of the social world” (Bourdieu, 1984, p.170). Social origin extends to all areas and all levels of students’ experiences and first and foremost to their conditions of existence (Bourdieu & Passeron, 1979), and, thus, has been defined as habitus. Sex, age and religion are not considered to provide the same differentiation as social origin (Bourdieu & Passeron). Presumably, disability would be regarded the same as these other factors. However, McCall (1992) takes issue with gender not receiving the habitus status and argues that a feminist habitus can be conceptualized. She notes the habitus framework for reconceptualizing social life parallels feminist efforts to rethink traditional approaches. Even if a hearing loss is not determined to be habitus, using the framework of habitus would shed more light on the scope and extent of the influence of a hearing loss on people’s lives. The framework of habitus would elevate the impact of the identity of being hard of hearing on the academic and social dimensions of university life. It would provide a theoretical framework for understanding a topic that requires further exploration. Thus, the first set of recommendations arising out of this study is to study an exploration of hearing loss as habitus.

Retention Theory

The second set of recommendations relates to retention theory. This study has shown that the retention and persistence of students who are hard of hearing can be affected by the existence of certain disability-related dimensions and the provision of academic and other accommodations related to their disability. Retention theory and models are mostly silent on disability dimensions. One of the research questions of this thesis considered the issue of

whether retention models sufficiently account for disability-related experiences, and found the models to be wanting in this regard. Various factors were identified that could be added to retention models, thereby adding a disability lens to academic and social domains, as well as considering disability in other aspects of retention. Thus, retention models should be revised to incorporate a disability-dimension recognizing that disability permeates a student's entire experience, as discussed earlier in this chapter. Factors outlined in Table 12 should be considered, including the provision of disability-related support services, the provision of academic accommodations, and the nature of physical environment, communication approaches, and attitudes. This recommendation is linked to further research on the disability dimensions for retention and is directed toward researchers.

Agency-structure Nexus

Retention models should also incorporate the agency-structure nexus to ensure that the analysis of retention factors considers the dynamic between structure and the players within it, including students. The agency-structure nexus recognizes that there are underlying structural influences which impact the individual. The concept recognizes that students are agents with different degrees of competencies, resources and strategies as they proceed through university. Although students may act, they also encounter people, policies and practices, inside and outside the institution, which may constrain their ability to act (Andres et al., 1996).

Giddens (1984) referred to structuration to describe conditions governing the continuity or transmission of structures and, therefore, the reproduction of social systems. Bourdieu (1984) used the field of forces concept to depict the dynamic between the individual

and the social system. Andres et al. (1996) depicted a given institution and the people within as a field of forces and field of struggles, which transform or conserve the field of forces.

The students participating in this study adapted to their university environment. They endeavored to fit in, some of them with the use of university disability-related resources. As persons who are hard of hearing, they are already predisposed to "fit" into a hearing world and to accommodate themselves to the demands of the hearing world. The pull to this identity may put students in the position of wanting to fit into the system and not expect that it would change or be different on their account. There was the same pull in the institution, namely, to have students fit into the system. However, there were examples that demonstrated that the post-secondary system shows capacity for change and modification on a retroactive basis. It would seem that, before such problems arise, more concerted efforts should be made for a proactive systems review. In this respect, the addition of disability-related factors to retention models offers a means for identifying factors that can enhance the academic and social experiences of students who are hard of hearing so that they are not just visitors, but full members of the university community.

Furthermore, retention models would benefit from adding the agency-structure nexus concept to ensure that the focus of retention activity is not solely aimed at individuals, in isolation of the larger social dynamics at play. Without this type of consideration, retention strategies may be unlikely to get at the nature of difficulties and solutions, which may be larger than simply being at the level of the individual student and individual institution.

It should not be taken as inevitable that students with hearing losses cannot be full participants in the academic and social environment because of their disabilities. There is much more that can be done than was demonstrated in the present study. These include

changes to the acoustic environment, changes in classroom instructional and participation protocols, the investigation and use of assistive listening and captioning systems that promote full classroom access, and the education and awareness of all members of the university community.

Through the use of the agency-structure nexus, the nature of the current dynamics is laid bare. Possible solutions may then be more likely to be considered. Perhaps awareness is the first step toward action and theory provides the foundation that makes awareness possible.

Policy and Practice

Faculty-Student Interaction.

Classes are at the centre of the educational communities of the campus (Tinto, 1993). They may represent a variety of different communities and when students find a niche in a course, it enhances their learning and retention. However, students who are hard of hearing are often visitors in the classroom because their level of participation is affected by their hearing losses. Because they experience conversational lag they are unable to keep up with the pace of conversation to the same extent as other students. They may hear the instructor, but not other students, and so miss a vital learning component, often without knowing fully what is missed. It is hard to know what one does not hear, because one doesn't hear it to know it's not heard. To overcome this difficulty, instructors need to structure activities to promote the classroom participation of students with hearing losses. The provision of accommodations and support services is not sufficient to bring about classroom equality; the pedagogy of the classroom needs to be restructured so that students who are hard of hearing are given full

opportunities for academic engagement.

Because instructors are key figures in promoting the involvement of students so that they are not visitors in the classroom, two recommendations are framed on this issue. The first recommendation calls for university senior administrators to ensure that faculty interaction with students is incorporated as part of faculty job descriptions and evaluation processes. Through these means, faculty-student interaction would be incorporated as an expectation of faculty.

The second recommendation to promote faculty-student interaction calls for university faculty development centers to offer courses to faculty members on teaching methods fostering classroom participation, student development theory, and disability awareness. In particular, disability awareness should incorporate content about the nature of a hearing loss, its impacts on classroom learning, and strategies to promote communication and student involvement. Such courses should be mandatory for all university instructors. Such courses should incorporate follow-up opportunities for reinforced and further training.

Different Patterns of Study

An additional implication of the present study is the need for educational institutions to design programs and courses which allow for a flexible course load. A high number of the students interviewed for this study were taking a reduced course load; the nature of their disability often meant more of a workload in dealing with courses and accommodations than experienced by other students. As a result, by taking a reduced course load, they were more likely to be successful. Several were aware of their heavy investment and were anxious to succeed on account of it.

Students with hearing losses should not be disadvantaged when they need to take a reduced courseload. The nature of their disabilities may require extra time for successful course completion. Extra time should be allowed by faculty for course completion, for example, doctoral programs usually have a six-to-seven-year limit; this should be adjusted for students taking a reduced load because of their hearing disabilities, or any other disabilities for that matter. In addition, institutional awards programs should not evaluate the longer completion time negatively. Currently, scholarship programs such as those by the Social Sciences and Humanities Research Council (SSHRC) and the Natural Sciences and Engineering Research Council (NSERC) have set formulas for calculating degree completion time, with no variation for students with disabilities requiring part-time study. Administrators of such programs should re-evaluate their formula for course completion to ensure that students whose disabilities require part-time study are not disadvantaged.

Social Dynamics

This study supports findings by Bean and Metzner (1985) and Metzner and Bean (1987) that there are differences between mature and younger students. Post-secondary institutions need to recognize the developmental differences of students at different ages and plan accordingly. Younger and older students differ in terms of their outlook and their approach to university. Students who are 18-24 years are more similar in outlook to each other than they are to mature students. Universities, thus, are charged with responding differentially to students.

Some of the differences in students pertain to their level of university study; however, this does not fully explain all of the differences between older and younger students. The

older students in my study were more likely to be in graduate studies; however, some were also undergraduate students. Thus, it is important, at the undergraduate level, that the particular needs of mature students not be overlooked.

Formal social opportunities need to be created to ensure that students who are hard of hearing have the chance to connect with other students in milieus other than pubs and dances, which are difficult listening environments. In addition, sporting opportunities should continue to be provided, an area in which the three universities in this study appeared to be doing a good job. This recommendation is aimed at university administrators, student services, and student associations.

Transition Experiences

The transition to university was problematic for some students; some lost time by going to a college first and some experienced a drop in grades. Although these problems may also be faced by students who do not have a hearing loss, students with disabilities, whether they have hearing losses or other disabilities, need to know what accommodations and services are available at their post-secondary destination. Although some of the students in this study visited institutions, many were still not well-prepared for what they found, and one student assumed that all institutions were alike in their service provision. More intensive transition efforts need to be made, with visits to the actual institution well in advance to ease the transition process.

Students often did not have a clear idea of what to expect from their university and did not know what to expect in the way of support services. Students and their families have a responsibility to be informed about these issues but universities can help them by having

transition programs geared specifically to discussing disability-related accommodations at the university level. Generic transition programs are not sufficient if the specific disability component is not included. It is recommended that the Recruiting Offices of universities and DSOs jointly develop transition programs for students who are hard of hearing.

Disability Offices

This study also has implications for the provision of accommodations and support services for students with hearing losses in universities. Most of the students participating in this study had positive comments about DSOs and staff in such offices.

Most students found the staff of the office and/or its services to be important, for several reasons. One of the reasons had to do with the services provided by the DSO, such as notetaking, which students relied upon because their hearing losses made taking notes extremely difficult. Another reason had to do with the sense that students could approach DSO staff to problem-solve and discuss any issues of concern; these students felt they had someone to turn to for assistance. Finally, students identified DSOs as important for being there to help deal with any difficulties, should they occur, or because they felt it was important, if not for them, then for other students.

There were some students who had less positive experiences with DSOs; some of this may have had to do with the workload of DSO staff, which tends to be high at most institutions, and with the knowledge level of staff about hearing loss issues. Some of it may also have to do with the students' own expectations. It is hoped that these issues can be taken care of by adequate funding, staffing and training. University administrators should ensure that their Disability Services Office is fully funded, staffed, and supported. As well, staff

should receive training about issues pertaining to serving students who are hard of hearing. Students should also receive training about DSO policies and procedures, as well as on their responsibilities and rights as students.

Disability Services

In terms of service provision, the findings from this study showed that the low-tech, modest service of notetaking was the most used accommodation by participants. In the search for more technologically sophisticated and advanced means of dealing with a hearing loss, it is important not to forget the importance of such basic services as notetaking. The foregoing is not to suggest that advanced technological means are not important. If anything, this study suggests that students are tentative and reluctant to use all of the technology and services that potentially might be available to them. One of the services that a number of students required was hearing aids, which, fortunately, most were able to obtain. However, students are unable to get hearing aids funded through one of the major funding programs for students with disabilities, the Canada Study Grant, although ALDs such as FM systems are funded. Yet, most students need hearing aids before an FM system will be beneficial for them. The ineligibility of hearing aids for Canada Study Grant funding disadvantages students who are hard of hearing and should be changed.

The low use of certain services, such as FM systems, was related, in a few cases, to the untimely provision of such devices. With respect to classroom captioning, a couple of students had been discouraged from its use, having being informed that such services are expensive. Although it is recognized that Disability Service Offices are frequently over-worked and sometimes have budget constraints, the perspectives of students from this study

suggests that far more needs to be done to encourage students to use all that is available to and beneficial for them. New technological approaches to fostering classroom hearing should be investigated. The potential for technology to improve the listening environment has not been fully tapped.

The industry for developing assistive listening systems should provide more research and development into an FM or Infrared device that would address the difficulties of picking up student voices in large classrooms. DSO Coordinators should ensure that students are fully aware of captioning services and provide them as needed. These recommendations go hand in hand with DSOs receiving sufficient funding as noted earlier.

Classroom Acoustics

Insufficient attention has been paid to improving the acoustics of university classrooms. Most students taking part in this study found the acoustical environment of classrooms to be of poor quality. This assessment was common to the three different institutions that the students attended. The implication is that this compounds the hearing difficulties of students and may require the use of technical equipment and supports such as notetakers, where students may be able to function independently in a good acoustical environment. Given the importance of a good acoustical environment for hearing, steps should be taken by university administrators, particularly those with responsibilities for campus facilities, to improve the quality of the listening environment. As with most improvements for students with hearing losses, these improvements will be beneficial for all students.

Mentoring

Many students who are hard of hearing know from experience what works for them and which strategies enhance their university success. Opportunities should be provided for students to share their strategies with new students and be available as a mentor to them. Mentoring programs should be established by DSOs and consumer organizations, such as the Canadian Hard of Hearing Association.

Areas for Further Research

There are several areas for further research that arise from this study. These are identified below.

In terms of retention theory, more research is required to develop and test retention models with disability-related components added. This study introduced elements for consideration but it was beyond the scope of the research to test and refine these elements. Further study may support or refine these elements, as well as identify other elements. Moreover, further study could delineate whether there are specific disability-related factors, as opposed to those applicable for all students with disabilities. For example, instructor awareness and attitudes would likely cut across all types of disabilities, whereas captioning technology might be applicable only to students with hearing losses.

A participant observation study could be undertaken to further explore the issues of whether students who are hard of hearing are visitors in the classroom. The proposed study would involve the researcher in classroom observations of the interactions of students who are hard of hearing. Three dimensions might be assessed: participation in class discussions,

engagements with other students during class and during informal class times, and interactions with instructors. This study identified what students stated occurred; a participant observation study would bring more precision to the participation issues raised in this study.

A study from the point of view of instructors would be useful. The study could consider, from the instructors' point of view, their experiences with students who are hard of hearing, in terms of instructors' attitudes, instructor-student interactions, the provision of academic accommodations, and issues related to accommodations. The extent to which some accommodations are universal for all students and others are specifically tailored for students with hearing disabilities could be explored.

A sequel to this study could undertake to interview many more students with hearing losses as well as other students with disabilities. Whereas my study focused on university students, other studies could consider college students with hearing losses as well. Also, a study of students with multiple disabilities would shed more light on these students' experiences. A study undertaking a longitudinal approach could yield results that show patterns over different periods of time.

Another area for further research is to do a comparison study between students who are hard of hearing and other students to ascertain the commonalities and the differences that the students share. In this respect, it would become more possible to delineate aspects of post-secondary experiences that may be disability-related versus those that are applicable to all students.

More research is needed on the provision of exam and technical accommodations for students with disabilities. All these forms of accommodations are under-utilized by students who are hard of hearing.

Mental health issues with respect to persons with hearing losses merit further attention. Two students had diagnosed mental health conditions and five other students discussed mental health issues or identified a need for counselling services, albeit for different reasons. Insofar as hearing students also use of counselling services, these patterns may not be unusual; further study could shed more light on the subject.

The impact of sporting activities on the lives of students who are hard of hearing is an under-studied area of activity. This study suggests that sports play an important part of some students' lives.

Further research on the transition issues faced by students who are hard of hearing merit attention. The role that itinerant teachers play in the process of preparing students for post-secondary education would be one aspect. Another would be to identify the critical sets of skills and attitudes that students need to prepare them for a successful post-secondary experience, and how these may be imparted.

Significance of the Study

This study has contributed to an understanding of the experiences of university students with hearing losses. This experience is similar to that of other students, but is different insofar as hearing difficulties may impact on both academic and social experiences of students. This study is the first in-depth look at the experiences of students who are hard of hearing in this regard. It provides considerable data for researchers, policymakers, and others seeking to understand what it is like to be a student who strives to fit in as a hearing person, but is unable to do so fully. Because a hearing loss is invisible and the nature of the loss is hard to gauge, understanding the perceptions and experiences of those who live with the

situation day by day is doubly important. In this respect, this study is not only about the post-secondary experiences of students who are hard of hearing, but it is also about their experiences as individuals living in a hearing world. The extent to which the findings would be found in other settings is a subject for further research.

This study situated itself in the rich body of retention literature in describing the experiences of students who are hard of hearing in university. The experiences of these students were considered in light of other findings. As a result, we know more not only about students who are hard of hearing, but also about the post-secondary experiences of students in general. Because there are still few studies about the qualitative experiences of post-secondary students, it is beneficial for more to be known to contribute to the knowledge creep in the field. In particular, the findings from the present study give rise to identifying policies, programs, services, and strategies for the retention of all students, and students who are hard of hearing in particular. The data from this study indicated a number of areas for improvement as discussed under the recommendations and implications section in this chapter.

The current study reviewed existing retention models and found them insufficient to capture the experiences of students who are hard of hearing. Although this study was descriptive, not predictive in nature, the categories used, particularly in Tinto's retention model (1975, 1987), provided useful components of a framework. In particular, the categories served to enable the comparison to other students with disabilities, but they did not address disability-related issues, and it is recommended that these elements be incorporated into future retention models.

Finally, the present study demonstrated that the underlying structural forces at university expect adaptation of students to the environment; students expect the same as well.

When a problem occurs, change to the existing approaches may occur; unfortunately, this is a reactive approach. By adopting a disability retention approach, a more proactive approach is suggested so that students who are hard of hearing are not solely visitors, but are full members of the university community.

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Appendix A: Terminology^a

Support Services

Notetaking. Consists of class notes usually produced by students who take notes to provide access. The notes may either be on carbon paper or photocopied.

Taping. Involves use of a tape recorder to record class lectures and discussion.

Oral Interpreting. An oral interpreter is a hired professional whose lip movements silently repeat what is said.

Sign Interpreting. Communication is in sign, either American Sign Language, Signed English or a combination of the two.

Real-time Notetaking (Classroom Captioning). Constitutes a variation of real-time notetaking and involves use of a regular computer; no special software is used. Users simply read what is on the screen of a laptop computer used by the typist and sit next to the typist for this purpose.

Real-time Captioning (Classroom Captioning). Involves a specially-trained court reporter using a steno shorthand machine connected to a computer with software that translates the steno shorthand into a verbatim account of what is being stated in a class. Use of this technology enables the typist to reproduce text at the rate of human speech, 250 words per minute. It displays the text on a large screen, overhead projector or television screen. For projection onto a large screen, an overhead projector and a computer print panel are setup. An alternative to the above method may involve use of a standard computer keyboard linked to a computer by means of specific software. The software for captioning enables the typist to list abbreviations for more complex words which are entered into memory; the typist only needs to type in the abbreviation for the entire word to print on the screen. The system provides the verbal content in print summary form rather than being word for word. It displays printed words on a computer screen, a separate monitor, or a large screen through use of an overhead projector and computer print panel. It can include hookup of a computer for student use, so you can send messages to the typist. This system is also known as Communication Access Real-time Technology (CART).

^aAdapted from Warick (1997)

Technology

Assistive Listening System - Radio microphone system (FM system). Consists of a transmitter and a receiver whereby radio signals are transmitted, either on an AM frequency or an FM frequency. The receiver picks up the signals through an inductive coupler (T-switch) in the wearer's hearing aid.

Assistive Listening System - Infrared system (IR system). Consists of a transmitter and a receiver whereby sound is transmitted by use of light rays. The receiver picks up the signals through the hearing aid's inductive coupler (T-switch).

Cochlear implants: This is a medical procedure which stimulates the cochlear of the ear to provide sound capability.

Telephones. T-switch compatible phones are used with hearing aids to provide clear sound from the telephone coil's magnetic signal. Volume control telephones amplify sound. A TTY involves use a keyboard to print messages.

Television/Video Decoders. Captioned versions of a film or video display printing of the verbal content on the screen. If the captions are "closed" a decoder is required to unveil the captions.

Amplification with Television/Video/Radio Programs. Devices which maximize the sound of tvs and radios in a number of ways: (1) an additional loudspeaker (placed near the hard of hearing student), (2) earpieces connected to the television set with or without the use of a coupler (to enable use with the hearing aid T-switch), and (3) use of an ALD hooked up directly to the television set.

Flashing Alarms/Signaling Devices. Flashing lights or visible alarms provide visible warning signals in case of a fire or an emergency.

Academic

Priority Registration. This means being able to register ahead of other students if additional time is required to arrange support services for classes.

Exam Accommodations. Depending on the effect of a student's hearing loss, some accommodations which hard of hearing students have obtained are: 1) a quiet setting for writing your exams; 2) for the instructor to ensure that you can hear any verbal instructions given to the class during the exam; 3) an alternative would be to have a notetaker or interpreter relay the information, and/or 4) a request for class participation to be differently graded if hearing impairs participation.

Academic Tutoring. Some post-secondary institutions offer tutoring services for students whose hearing loss results in missing key learning concepts. As well, some colleges offer

instruction specifically for students to improve in specific areas, such as English composition, or to develop compensatory strategies for enhancing study and learning skills. The role of the tutor is to reinforce the teaching in the classroom, not to substitute for it.

Preferential Seating. This involves designating a class seat so that it is always available.

Room Changes. A room change may be justified for acoustical reasons.

Speech and Hearing Services

Hearing Testing and Consultation: Such services are provided by audiologists to test hearing loss and to prescribe and fit an Assistive Listening Device (explained below - see FM and Infrared devices).

Equipment Servicing: Assistance with troubleshooting in use of a hearing aid is provided by audiologists, hearing aid dealers or other professionals.

Speechreading Classes: Such classes are designed to help you improve your lipreading and speech recognition skills. Classes are often offered through community agencies and community colleges.

Appendix E: First Interview Guide

Interview Guide for the First Interview with Hard of Hearing Students

Introduction

Page 1 of 2

Six areas will be covered in this interview guide: 1) general university experience 2) academic experience 3) social experience 4) disability-related supports and services, 5) family connection, and 6) nature of a hearing loss and demographic issues. The guide is intended to be just that - a guide - so that interviews will follow the flow of the person and their directions, while at the same time ensuring that essential issues are covered in the semi-structured interview.

TOPIC: General University Experience

1. What year of study are you in?
2. What program are you enrolled in?
3. What is your reason for going to university?
4. Describe your university experience.
5. Have you encountered difficulties in university due to your hearing loss?
6. How do you deal with such difficulties?
7. Are the difficulties any different from what you experienced previously?
8. How would you describe attitudes toward a student with a hearing loss by a) instructors b) students, and c) other staff?
9. In general, how would you describe the overall university climate for a student with a hearing loss?

TOPIC: Academic university experience

1. How are your studies going?
2. Does your hearing bear on your studies? Please elaborate.
3. Describe your interactions in the classroom with instructors and other students.
4. Does your hearing loss figure in these interactions?
5. How do you deal with your hearing loss in the classroom?

TOPIC: Social university experience

1. What types of activities are you involved with outside of the classroom on campus?
2. Does your hearing loss affect your activities, if at all? [Please elaborate.]
3. Describe your social relationships.
4. Does your hearing loss affect your social relationships if at all? [Please elaborate.]
5. How do you deal with your hearing loss in activities and social relationships?
6. How would you compare your present experience to being in high school?

Interview Guide for Hard of Hearing Students

The Post-secondary Experience of University Hard of Hearing Students Page 2 of 2

TOPIC: Disability-related supports and services

1. What kinds of support services are you receiving e.g. captioning, notetaking, tutoring, and exam accommodations? (Show Services Checklist – attached.)
2. Are you using hearing aids, FM/Infrared or other such devices?
3. Who provides such services?
4. How do such services/equipment assist you?
5. Are there services/equipment which you require but do not have? Please explain.
6. How does your present service/equipment level compare with previous use? Please elaborate.
7. How do you find the environment (acoustics and classroom design) for you as a student with a hearing loss?
8. How does the environment compare to what you previously experienced?

TOPIC: Family connection

1. Is your family involved in your university education? If so, in what way (e.g. assist with selection of a university, assist with homework, provide financial support, provide housing)?
2. What difference does your family's involvement make for you in University?
3. How does your present relationship with your family compare with what you had previously? Please elaborate.

TOPIC: Demographics

1. What is your age?
2. What is your ethnic background?
3. What is the nature of your hearing loss?
4. What are your mother's education and your father's education?
5. What is your mother's and your father's occupation?
6. What other disabilities (if any) do you have?
7. What was your grade point average going into university?
8. What is your present grade point average?

Services Checklist (shown to students during the first interview)

Services Checklist
NOTETAKING
- with carbon paper
- photocopying access
- taping in class
ACCESS
- computer notetaking
- realtime captioning
- realtime notetaking
- oral interpreting
- sign interpreting
TECHNOLOGY
- assistive listening system
- built-in ALD in classes
- telephone access
- flashing lights
- captioning devices
ACADEMIC
- priority registration
- accommodated exams
- academic tutoring
- extra instruction
- preferential seating
- room changes
SPEECH AND HEARING
- hearing testing
- hearing consultation
- equipment servicing
- speechreading classes

Appendix F: Second Interview Guide

Interview Guide for the Followup Interview with Students who are Hard of Hearing

Introduction

1. Purpose of the second interview is to find out about experiences since the first interview and discuss any new issues or elaborate on those previously discussed.
2. Any comments or changes to the transcript from the first interview?

Academic university experience

1. Since we last talked, how have your studies been going for you? French course?
2. Has anything changed for you? For better? For worse?
3. How are your interactions going?
4. Has there been any change in your interactions with instructors and students from before? Please elaborate.
5. Does your hearing loss figure in the changes? Please elaborate.
6. How are you dealing with the changes?
7. Seating arrangement preferred?
8. Talk to profs after class?
9. How do you register for classes? Able to use Telereg? Early registration?
10. Still plan to go to grad school? (or otherwise depending on the participant's response the first time round)

TOPIC: Disability-related supports and services

1. Is there any change in the support services you are getting this term from last term? (e.g. captioning, notetaking, tutoring, exam accommodations)? Please elaborate.
2. Notetaking Type of notes preferred and type of arrangement for notetaking preferred
3. How important/not important did Disability Services play in your university education? Scale of 1-7

TOPIC: Social university experience

1. Has there been any change in these activities from before? If so, please explain.
2. Does your hearing loss figure in the changes? Please elaborate. How are you dealing with the changes?
3. Importance of sporting activities
4. Importance of religious activities
5. How would you compare your present social experience to three/four months ago?
6. Does your hearing loss figure in the changes? Please elaborate.
7. How are you dealing with the changes?

Financing of Education

1. Grants and loans/ VRS/ Amount of student debt

General

1. Use of other student services
2. Level of difficulty due to hearing loss encountered in university? Scale of one to seven.
3. Level of commitment to university studies? Scale of one to seven.
4. Advice would give to other hard of hearing students
5. Are there any advantages you experience as a result of being a student with a hearing loss (e.g. eligible for certain types of funding and support services)? Please elaborate.
6. In general, how would you describe the overall climate for a student with a hearing loss?

TOPIC: Family connection

Is there any change in how your family involved in your university education? If so, in what way (e.g. assist with homework, provide financial support, provide housing)? Please elaborate.

Appendix G: Journal Guide

Journal Guide for Hard of Hearing Students

The Post-secondary Experience of University Hard of Hearing Students

The following is a sample journal guide for hard of hearing students to complete twice weekly over a three- week period. The form is a guideline and students may choose to approach this differently if they wish. Participation in this component is voluntary.

1. Please note a positive experience you had this week at university and how you felt about it.
2. Please note a negative experience you had this week at university and how you felt about it.