AN INVESTIGATION OF THE TRANSITION FROM EARLY INTERVENTION TO

SCHOOL FOR CHILDREN WHO ARE DEAF OR HARD OF HEARING

by

Deirdre Marie Curle

B.A., The University of Winnipeg, 1989

M.S., The University of New Mexico, 1995

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Special Education)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April 2017

Abstract

The transition to school is considered an important milestone in early childhood development with implications for later school outcomes. However, it has been largely uninvestigated for children who are deaf or hard of hearing (D/HH). The overarching goal of this dissertation was to examine the transition from specialized early intervention (EI) programs into the school system for children who are D/HH and their families.

Study 1 investigated the availability, accessibility and content of information on the transition to school for D/HH children on government, outreach program, EI program and school district websites in British Columbia (B.C.), Canada. Results indicated that the majority of these websites offer little information about the transition to school, particularly in rural areas. Limited accessibility, particularly for individuals with disabilities or with lower English literacy was noted.

Study 2 investigated the transition from the perspective of administrators and directors from EI, outreach, and school-based programs for D/HH children. Using the enhanced critical incident technique (ECIT), 146 incidents were extracted from 10 interviews and sorted into 10 helping, nine hindering and five wish list categories. Findings highlight the importance of communication and information exchange among stakeholders to provide a smooth transition to school for D/HH children.

To further investigate the communication that occurs and the relationships that develop among stakeholders during D/HH children's transition to school, Study 3 used activity theory as a framework to examine the means by which stakeholders (parents, EI providers, and teachers of the deaf) communicated, and the topics that they discussed. Results add support for families' need for information about their child's educational program, and use of personalized, high-

intensity transition practices to support children and their families through the transition process. The overall findings of this dissertation lend support to the Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000), which conceptualizes the transition to school as being influenced by a pattern of interactions between the individuals, groups, and institutions connected to the child. Future directions for research and practice are discussed.

Preface

This project was supported in part through funding from the Vancouver Coastal Health Authority - Child and Youth Mental Health Services to Janet Jamieson. The UBC Behavioural Research Ethics Board, Certificate Number H11-01259, approved this project.

Study 1 (outlined in chapter 2) was conducted at the University of British Columbia. A version of this manuscript was published in *Deafness & Education International* (date of online publication: 17 July, 2014. Copyright: W.S. Maney & Son). The citation is as follows: [Curle, D.M. (2015). An examination of web-based information on the transition to school for children who are deaf or hard of hearing, *Deafness & Education International*, 17(2), 63-75, DOI: 10.1179/1557069X14Y.0000000039]. Print form is also available through the journal. I was responsible for all aspects of the research such as designing the research question, collecting the data, analyzing and interpreting the data, and manuscript preparation.

Study 2 (outlined in Chapter 3) was also conducted at the University of British Columbia. This manuscript was published in *Journal of Deaf Studies and Deaf Education* (date of online publication: 27 October 2016; Copyright: Oxford University Press). The citation is as follows: [Curle, D., Jamieson, J., Buchanan, M., Poon, B.T., Zaidman-Zait, A., & Norman, N. (2016). The transition from early intervention to school for children who are deaf or hard of hearing: Administrator Perspectives. *Journal of Deaf Studies and Deaf Education,* enw067v1-10. DOI:10.1093/deafed/enw067]. Print form is also available through the journal. Dr. Janet Jamieson, Dr. Marla Buchanan, Dr. Brenda Poon, Dr. Anat Zaidman-Zait, and Dr. Nancy Norman are co-authors on this manuscript. I was involved in all aspects of this investigation including study design, ethical application, participant recruitment, data collection, analysis and interpretation of the data, and manuscript preparation. I led the work involved in study design,

analysis and interpretation of the data, and manuscript preparation.

The results from Study 3 in Chapter 4 have not been published. Dr. Noreen Simmons assisted with recruitment of parents. Dr. Janet Jamieson and Dr. Nancy Norman were involved in the recruitment of teachers and early interventionists, and conducted their interviews. Dr. Norman and a research assistant transcribed those interviews. Dr. Norman conducted and transcribed interviews with two of the parents who participated in this study. I conducted and transcribed interviews with five parents (three mothers and one couple). I was responsible for the work involved in study design, analysis and interpretation of the data, and manuscript preparation, with input from my supervisory committee.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ALT – text alternative tags

ASL – American Sign Language

B.C. – British Columbia

Bi/Bi – Bilingual/Bicultural

CI – cochlear implant

CIT – Critical Incident Technique

D/HH – deaf or hard of hearing

ECIT – Enhanced Critical Incident Technique

EI – early intervention

HA – hearing aid(s)

LSL – Listening and spoken language

TC – Total Communication

TOD – teacher of the deaf and hard of hearing

Acknowledgements

It takes a village to complete a dissertation. First, thank you to my advisor, Janet Jamieson, for her wisdom, guidance and encouragement. To my committee members, Marla Buchanan and Brenda Poon, thank you for sharing your time and expertise, and for encouraging me through the process.

I would like to acknowledge the other members of the Deaf Research Group – Anat Zaidman-Zait, Nancy Norman, and Noreen Simmons. Thank you for your friendship, your helpful feedback on these three studies, and the treats you brought to our meetings.

I thank Sharon Abbondanza, who generously shared her home with me during my time at UBC. I thank my parents, Bob and Adeline Curle, and my brother, Clinton Curle, for their steadfast encouragement and support through the process. And a special thank you to my spouse, Steve Kim, who provided unwavering love and support as his wife commuted between Seattle and Vancouver for seven years.

Dedication

Dedicated to the memory of Naima Libertad Abbondanza.

Chapter 1: Introduction

The aim of this dissertation was to examine the transition from the early intervention system to school for children who are deaf or hard of hearing (D/HH). This first chapter will provide background information on children who are D/HH and the early intervention and school systems that serve them, as well as the theoretical frameworks that underpin this research.

Children Who Are Deaf or Hard of Hearing

The transition from early childhood settings to school is often considered to be an important event, in which the child enters a wider community and begins to learn in a structured way the academic and social skills that are essential for participation in society. However, for families of children with special needs such as hearing loss, this transition can be especially difficult. Not only must families manage the typical changes that occur with regard to environments, schedules and caregivers, but they must also navigate the transition from early intervention to the special education system, with decisions to make regarding goals, services, and placement. Despite the significance of this process, there is virtually no documented research on the transition from early intervention to the school years for children with hearing loss to guide parents, educators, or policy-makers.

In Canada, there are over 23,000 children between birth and 14 years with hearing loss (Statistics Canada, 2006). Historically, children who are D/HH have consistently demonstrated delays in language development due to incomplete or absent access to language(s) of their family and community (Conrad, 1979; Holt, Traxler, & Allen, 1997; Spencer & Marschark, 2009). Hearing loss in children can have a pervasive effect across multiple domains of development, affecting academic performance and social skills, as well as speech and language skills. Even a mild hearing loss can negatively affect a child's development (Bess, Dodd-Murray, & Parker,

1998; Wake, Hughes, Poulakis, Collins, & Rickards, 2004). Despite the use of intensive intervention to support these children's development, many continue through their school years with significant delays in language skills, social skills, and academic achievement (Baudonck, Van Lierde, D'Haeseleer, & Dhooge, 2011; Geers, Moog, Biednestein, Brenner, & Hayes, 2009; Marschark et al., 2009; Thagard, Hilmier, & Easterbrooks, 2011).

In the sections that follow, characteristics of early intervention and educational service delivery for D/HH children and their families in British Columbia, Canada, will be highlighted because that is the region in which the study was geographically located. It is acknowledged that specifics of service delivery may vary somewhat from this description in other regions of North America.

Early Intervention and the Transition to School

Early Intervention

An increasing number of countries, including Canada, provide early intervention (EI) services to children identified with developmental delays or disabilities (B.C. Ministry of Children and Family Development, 2013; Brown & Gurlanick, 2012). EI programs typically provide family-centered services, focusing not only on the child, but also on family needs, with an emphasis on enabling and empowering families to mobilize support and resources and positively influence family functioning (Dunst, Trivette, & Deal, 1994). Based on an ecological model of human development, the family-centred approach recognizes the complexity of the interconnectedness between child, family members, and environment (Bronfenbrenner, 1979). This approach acknowledges and respects family diversity and values, which are taken into account when planning and delivering medical, therapeutic, or educational services. Family members are considered partners in the intervention process; they are called upon to participate

2

actively in their child's therapies or education and contribute to decisions made regarding goals for their child, and are encouraged to advocate for their child (Bailey, Raspa, & Cox, 2012).

Early Intervention Services to D/HH Children and Families

Since 2007, infants born in British Columbia (B.C.) have been screened for hearing loss at birth (B.C. Early Hearing Program, 2008). Once an infant or young child is identified with hearing loss and meets eligibility criteria, the family qualifies for EI services. These services, which fall under the responsibility of the B.C. Ministry of Children and Family Development, typically consist of home visits and/or centre-based care from professionals who provide training and support to families regarding amplification, communication options, educational options, and advocacy. A small but growing body of research has investigated the efficacy of EI services for D/HH children since the widespread implementation of early identification of hearing loss (Moeller, 2000; Yoshinaga-Itano, 2003; Meinzen-Derr, Wiley, & Choo, 2011; Watkin et al., 2007). These studies report a positive effect of EI on language development and family support. EI services are typically provided to children and families in B.C. until the child enters the school system.

Approaches to supporting child and family communication among these specialized programs vary. They may include Listening and Spoken Language (LSL), which focuses on maximizing auditory and oral language skills; Total Communication (TC), which utilizes a variety of communication methods, including sign language, voice, speech-reading, and gesture; or the Bilingual/Bicultural (Bi/Bi) approach, which promotes American Sign Language as the child's primary mode of communication, and English as the second. Regardless of the approach, one of the primary goals of EI for D/HH children is to support the development of communication skills.

Transition to School

In many Canadian provinces, including B.C., children enter the school system at kindergarten. The transition to kindergarten is one that may require a significant amount of adjustment on the part of the child and family. First of all, school systems typically take a child-centered approach to education, in contrast to the family-centered approach used by early interventionists. The term *child-centered* has had a number of different meanings that have shifted across time and context (Chung & Walsh, 2000). In the context of transition to school, child-centeredness is the focus on the characteristics of the child that determine readiness for kindergarten, as opposed to a focus on the child and family (Rimm-Kaufman & Pianta, 2000).

The setting of the kindergarten environment is often more demanding than the home or preschool environment, with greater expectations for the child cooperating with adults and peers, adhering to a routine, and remaining alert and active for longer periods of time (McIntyre, Blacher, & Baker, 2006; Rimm-Kaufman & Pianta, 2000). Elementary school classes are typically larger than preschool classes, with a lower adult-to-child ratio (B.C. Ministry of Education, 2013; National Center for Education Statistics, 2010). They are often more ethnically and socioeconomically diverse (Pianta & Cox, 2000). Children typically engage in fewer free-play activities in kindergarten, and participate in more structured, academic learning and group-based activities than in early childhood settings (Ray & Smith, 2010). The cumulative effect of all these changes may amount to some degree of stress for the child and family.

Parents have an enormous influence on their child's adjustment and performance in school, impacting outcomes in a number of ways. Greater parent involvement in their child's school progress is positively associated with academic achievement (Cooper, Crosnoe, Suizzo, &

Pituch, 2010; Fan & Chen, 2001; Ray & Smith, 2010). Parents' positive attitudes toward school are associated with positive child-teacher relationships (Dearing, Kreider, & Weiss, 2008).

Transition practices in general education. A number of studies have examined the specific transition activities that kindergarten teachers perform or coordinate. In a study examining kindergarten transition practices in 57 schools in the northeast U.S., Gill et al. (2006) reported that few kindergarten and pre-kindergarten programs had a formal kindergarten transition plan in place. Most of the kindergarten programs participated in information-sharing activities, sending flyers, letters, or brochures to families. Many programs also reported coordinating kindergarten registration, and providing information to parents about kindergarten readiness and expectations. Additionally, Rimm-Kaufman and Pianta (1999) examined family involvement logs of 13 preschool teachers and 15 kindergarten teachers of 290 children. They reported that teacher-family contact occurred more often between preschool teachers and parents, while families received more notes and more negative news from kindergarten teachers. In Quebec, teachers of 95 kindergarten teachers reported school-mandated practices such as gradual entry, small group meetings on the first day of school, and a parent orientation prior to school start. Individually, teachers varied in their use of additional transition activities, such as phone calls, post cards, or home visits (Petrakos & Lehrer, 2011).

Pianta and Kraft-Sayre (1999) contacted 261 families across three southern U.S. states after their children entered school. The researchers found that more intensive practices, such as home visits, helped ease the transition, and increased parents' familiarity with the school. However, Pianta, Cox, Taylor, and Early (1999), in their national survey of teachers in the U.S. regarding kindergarten transition practices, found that there were barriers to higher intensity practices, such as no funding for teachers to engage in practices over the summer and class lists

being generated too late. In urban, high-poverty areas, kindergarten teachers reported concerns about contacting and visiting families, and about parents' abilities to read information sent home, or even bring their children to school. Consistent with this, Early, Pianta, Taylor, and Cox (2001), reporting on the same survey, indicated that practices involving coordination between kindergarten and preschool programs or community were relatively rare. Thus, it appears that while high-intensity teacher practices are more effective at easing the transition to kindergarten, the low-intensity transition practices are more commonly used.

The Transition to School for Children with Exceptionalities

When children with exceptionalities enter the school system, EI services cease, and the children's educational needs and support fall under the responsibility of the school system. This shift from family-centered care to child-centered care during the transition from early intervention to school can be an even more difficult adjustment for some families of children with special needs. Parents may worry about their child's readiness for school in terms of academic learning, communication with peers and teachers, or behaviour (McIntyre et al., 2010; Quintero & McIntyre, 2011). In addition, parents may feel confused by special education policies and practices, or dissatisfied with the school's service provision (Janus, Lefort, Cameron, & Kopechanski, 2007; Lovett & Haring, 2003; Veleo, 2003).

Transition practices in special education. School district support for children with special needs and their families during the kindergarten transition varies. Preschool programs seem to provide more transition support than kindergarten programs. For example, Quintero and McIntyre (2011) surveyed the kindergarten teachers and parents of 95 children with disabilities, as well as 20 directors of preschool programs. In their study, parents reported that the preschool teachers engaged in more transition-related activities than the kindergarten teachers. In a national

study of kindergarten transition practices for children with disabilities, Daley, Munk, and

Carlson (2010) found that families of children with exceptionalities in larger or higher poverty

districts were less likely to receive high-intensity practices, such as a teacher visits or phone calls,

as their children entered the school system. However, families of children with exceptionalities

and their early education service providers are often more involved in the transition to school,

compared to families and preschool teachers of typically developing children (Welchons &

McIntyre, 2015) and demonstrate a need for frequent communication from their child's teachers.

A survey of over 2500 Ontario parents found that when a lack of communication between

preschool or EI service providers and the school system occurred, parents were less satisfied

with the transition (Janus, Kopechanski, Cameron, & Hughes, 2007).

Transition to School for D/HH Children

Poon, Jamieson, Zaidman-Zait, Curle, Norman, and Simmons (2016) investigated the

transition process for D/HH children in B.C. from the perspective of various stakeholders.

Similar to parents of children with other exceptionalities, families of D/HH children expressed

concerns over their child's transition to school. Poon et al. found that strong, long-standing

relationships among stakeholders, along with openness in communication and attitudes between

school-based teams and parents, facilitated the transition to school. Barriers to a smooth

transition to school included lack of access to specialized EI services, limited knowledge of the

needs of D/HH students in the school system, lack of knowledge among parents of the Special

Education system, and poor communication between stakeholders.

While hearing loss has a low incidence among children, it has a high impact on classroom

learning. Poon et al. suggest that D/HH children require EI providers and educators who are

knowledgeable about the supports they need for language development and learning, and who

can support parents and other educators in terms of providing information to them about the nature of hearing loss and its impact on language development and learning. At the same time, the authors suggest that school-based professionals need to be open to parents' and early interventionists' suggestions and be willing to accommodate D/HH children's needs. Apart from this one study, there has been no focused, documented attention on the transition to school for D/HH children.

Theoretical Framework

Two theoretical frameworks guided this dissertation – ecological systems theory and activity theory. The former was used to examine the relationships among key stakeholders in the child's transition to school. The latter was used to examine the collective activity among the stakeholders during the transition process.

Ecological Systems Theories

The transition to school is often viewed through the lens of ecological systems theories (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998, 2006; Rimm-Kauffman & Pianta, 2000), which regard the transition from EI to school as influenced not only by child characteristics, but also by the direct and indirect contexts surrounding the child. The direct contexts include teachers, family, and peers, and their relationships with one another, whereas indirect contexts include school board or governmental decisions affecting classroom practices or school district funding. For D/HH children transitioning to school, key contexts include, but are not limited to: home, EI or preschool, school, and policy (Poon et al., 2016; Tudge et al., 2009). Decisions made by policy-makers are important to consider because they influence factors such as staffing, class size, and school facilities, which could impact the teacher's ability to perform high-intensity practices (Daley, Munk, & Carlson, 2010).

Rimm-Kaufman and Pianta (2000) applied ecological systems theories specifically to the transition to kindergarten and developed The Ecological and Dynamic Model of Transition. This model recognizes the combined dynamic effects of child and the direct and indirect effects of contexts on the transition, and also emphasizes the development of relationships among these contexts that occurs over time. Thus, it is not only the interaction of the child with teachers or parents that influences their academic performance at school, nor the combined interaction of child, teacher, and parents, but it is also the changes within this network that occur over time that influence child outcomes. For example, if a teacher has experienced a lack of response from parents over a child's disruptive behaviour with that child's family or similar families, she may decide not to contact them with her concerns in the future. Similarly, if parents had negative experiences with school when they themselves were children, they may be distrustful of teachers when their own children enter the school system. While parent-teacher relationships influence the transition to school (Malsh, Green, & Kothari, 2011), this model posits that these relationships can have a long-lasting influence on children's social and task-related successes throughout their academic programs.

Extending this model to the situation involving children who are D/HH, the relationships that begin to form among D/HH children, teachers, and parents at school entry will continue to evolve and are likely to have a lasting impact on the child's school outcomes. This is because children who are D/HH often need specialized services and supports throughout their academic careers (Marschark & Hauser, 2012). Furthermore, improved child outcomes are associated with parents who provide their child access to language at home, and advocate effectively for their child in the school system (Calderon, 2000).

Activity Theory

Activity theory, which evolved from the work of Soviet psychologists Leont'ev, Vygotsky, and Luria (Engeström, 1999), provides a lens for investigating the communication that occurs among parents, EI providers, and school personnel as D/HH children transition to school. This framework views human activity as a series of conscious and goal-directed actions by the "subject," that is, an individual or subgroup, toward a defined "object," as in objective or motive (Nardi, 1996). An important component to activity theory is the notion of mediation by tools or artifacts. These tools may be literal tools, such as a hammer, but can also be more abstract, such as a language, or a common idea (Kuuti, 1996). Tools, which carry their own social and cultural histories, mediate the relationship between the subject and object, while at the same time, limit the interaction to act within the bounds of that particular tool. For example, telephones, which are frequently used as a tool by schools to contact parents, have a history and cultural meaning of their own. There are also limitations with this tool – for example, telephone companies will disconnect telephones if the user does not pay the bill. Thus, if a family is having a difficult time making ends meet and misses a payment on their phone bill, the school will not be able to reach them through that tool.

Activity theory considers human group activity over a period of time, rather than as a static event, and illuminates the process of how objects are transformed into outcomes, as shown in Figure 1. Processes are often transformed gradually, becoming refined and changed by the community in the activity system. An example of the relationship among subject, tool, and object is the use of a website (the tool) by a school district (the subject) to provide information to families (the object) about their school system. Over time, the activity is transformed into an outcome. As families visit the website, and as schools continue to change and improve the

website based on feedback from employees and community, the outcome will be that families

will become informed about student activities and district goals.
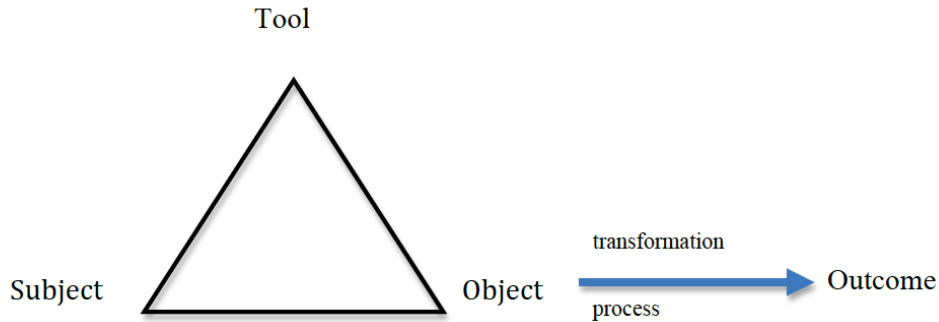
Figure 1.1 Activity theory, first generation. Interactive relationship among subject, tool, and object (Kuutti, 1996).

The first generation of activity theory centered around the concept of mediation. The

second generation of activity theory added the concepts of *rules, community*, and *division of*

labour. To explain this expanded framework, Leont'ev (1978) provided the example of a group

of hunters who divide their labour into two groups: bush beaters and catchers. The bush beaters

frighten the game and chase it towards the catchers. Without knowing the object – to catch the

game for food and clothing – the bush beaters' activities are irrational. This illustrates the notion

that the actions of the community members are shaped by the context of the activity.
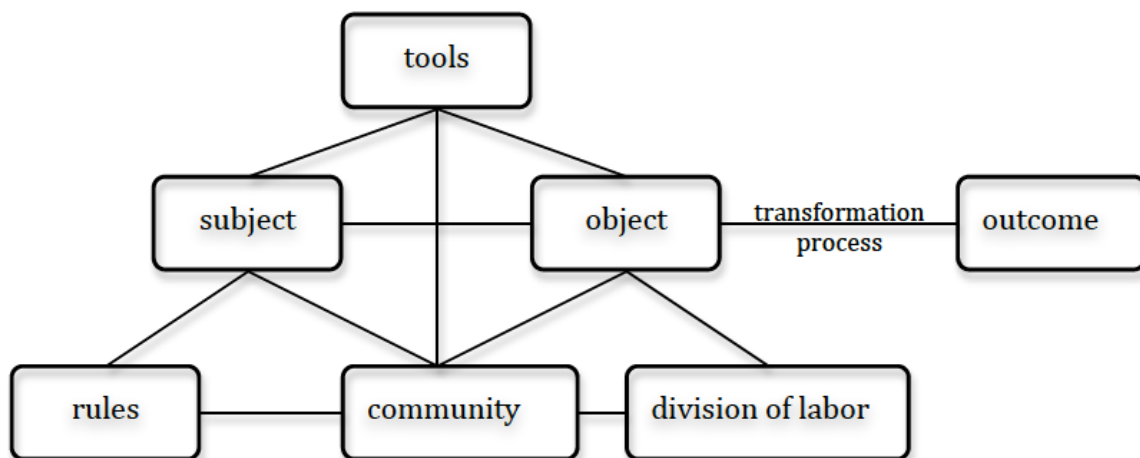
Figure 1.2 Structure of a second generation activity system

In the context of the transition from EI to school, various methods of communication, such as document-sharing, meetings, and face-to-face conversations or email, could be viewed as *tools* used toward the object or purpose of creating a smooth transition to school. The *subjects* (parents, early interventionists, or teachers) are guided by *rules*, such as guidelines, policies, and laws that guarantee educational rights to children with disabilities. Similarly, the relationship between *object* and *community* is mediated by the *division of labour*. The labour involved in the transition is often divided among parents and service providers, each of whom has a responsibility to complete certain tasks, such as parents registering their child for school, or early interventionists contacting the school district to alert them that a D/HH child is entering the school system. Together, these individuals form a community of sorts, and use communication tools towards the object of transitioning the child from EI to school, which leads to the desired outcome of a smooth transition for the child and family. The transformation process towards a smooth transition to school will occur over time, if services and supports are set in place upon the child's entry to school, and relationships develop between parents and schools. However, if there are any disruptions in educational placement and relationships, the outcome may be a difficult transition to school.

Activity systems are often intertwined and connected, distinguishable by their objects (Kuuti, 1996). However, they can exert influence on one another, which can lead to contradictions or disruptions within a given system that disrupt the flow of work (Engeström, 2001). Contradictions, or disruptions in activity systems are not viewed as problems in activity theory; rather, they are regarded as catalysts for change, innovation and development (Blin &

Munro, 2008; Helle, 2000). For example, while one activity focuses on transitioning a deaf child into the school system, the school district might be engaged in a different, yet related activity of hiring a sign language interpreter to support the child. If the district is unable to find a qualified individual to fill the position, this would cause a contradiction in the child's activity system. Exploring alternate solutions, such as moving the child to a residential school for the deaf where all staff and students sign, or using a video interpreting service, are examples of change that might occur as the result of the contradiction.

Because activity theory can be applied to a multitude of situations where goal-directed, collective human activity occurs, it was a suitable framework for this research, which looked at D/HH children's transition from EI to school from multiple perspectives. In particular, it sheds light on how tools are mediated in the activity of transitioning D/HH children from EI to school, and provides the opportunity for constructive re-imagining of specific parts of the system identified as contradictory.

Statement of Problem

At the time this research project began, little was known about the transition from early intervention to school for children who are D/HH. There was no published documentation on what processes or practices EI or school systems followed to facilitate a smooth transition, nor how parents, early intervention teams and school teams collaborated to transition D/HH children from early intervention to kindergarten. Furthermore, only a few studies had examined how schools and districts use websites – an example of a current tool for information dissemination -- to convey information to families (e.g., Hartshorne, Friedman, Algozzine, & Isibor, 2006; Hartshorne, Friedman, Algozzine, & Kaur, 2008; Tubin & Klein, 2007), and none of these had specifically examined the dissemination of school web-based information on special education.

Purpose and Structure of this Dissertation

The overall purpose of this dissertation was to examine transition of D/HH children from early intervention to kindergarten. The broad questions that guided this dissertation were:

(1)   What information is available to parents about the school system their child is entering, and who provides this information?

(2)   What policies and practices do EI programs, outreach programs, and school districts follow, and what practices help or hinder the transition follow?

(3)   How do stakeholders (parents, early interventionists, and school personnel) communicate and collaborate during the child's transition to school?

Individually, each of the three studies investigated questions related to the transition to school for D/HH children. Collectively, the three research questions above were investigated across the three studies. The focus and methods of each study are briefly described below.

The first study (Chapter 2) examined the availability, accessibility, and content of information about the transition to school for D/HH children on government, outreach program, school district, and EI program websites in B.C. using Roberts' (2010) website evaluation tool and thematic analysis.

The second study (Chapter 3) aimed to investigate the organizational policies, procedures, and guidelines that facilitate or hinder the transition from the EI system to the school system for children who are D/HH, from the perspective of program administrators. Using the Enhanced Critical Incident Technique methodology, 146 incidents were extracted from 10 interviews and sorted into 10 helping, 9 hindering, and 5 wish list categories.

To further investigate the development of relationships among stakeholders, the third study (Chapter 4) investigated the topics and tools of communication through thematic analysis of interviews with the primary stakeholders who surround the child during the first year of transition – parents, early interventionists, and teachers.

While each of these studies can be read as stand-alone manuscripts, they also respond collectively, in various combinations, to the previously stated broad research questions. Study 1 addressed the first research question about information availability and provision by looking at one current instance of information dissemination - websites of organizations involved in children's transition from EI to school. Study 2 addressed this question by examining transition processes from the perspectives of administrators of EI programs, outreach programs, and school districts. Study 3 examined the transition from the perspectives of parents, EI providers, and TODs, who described the information parents received about the transition to school, as well as the sources of this information.

The second research question relates to the policies and practices among EI programs, outreach programs, and school districts that help or hinder the transition to school for D/HH children. Study 1 addressed this question by examining documents from government, school district, outreach program and EI program websites on policies and practices relevant to the transition to school for children with exceptionalities. Study 2 investigated this question by examining transition-related policies and practices among EI program, outreach program, and school administrators. Study 3 used interviews with parents, EI providers, and TODs to gain their perspectives on the practices that best facilitated (or did not facilitate) D/HH children's transition to school.

The third broad research question of this dissertation investigated how stakeholders who are involved directly or indirectly with D/HH children (parents, early interventionists, and school personnel) communicate and collaborate during children's transition from EI to school. Study 1 investigated this question through examination of one-way, web-based communication from EI programs, outreach programs and school districts to the public about the transition to school for children with exceptionalities. Study 2 addressed this question by examining the perspectives of administrators, who had a bird's eye view of their organizations, and could describe practices for communication and collaboration at both individual and organizational levels. Study 3 examined this question through interviews with individuals involved in children's immediate contexts – namely, parents, EI providers, and TODs, who reported their personal experiences with the transition.

Collectively, this research has potential to be of both theoretical and applied significance. It will add to the growing body of literature on the transition to kindergarten for children with special needs, and may make a unique contribution to the literature in deafness, where this topic remains largely unexplored. In addition, it is hoped that this study will provide information to policy-makers, educators, and program specialists about effective practices for the transition from EI to school for children who are D/HH.

Chapter 2: An Examination of Web-Based Information on the Transition to School for Children Who are Deaf or Hard of Hearing

Families of children with exceptionalities often report a continuing need for information about services and supports, especially during times of transition (Jamieson, Zaidman-Zait, & Poon, 2011)**.** In this connection, when a child has special needs, such as hearing loss, the transition to school can be particularly stressful for parents (Janus, Kopechanski, Cameron, & Hughes, 2008, Lovett & Haring, 2003; McIntyre et al., 2010). In these situations, the Internet can be a helpful and easily accessible source of information. School districts, government agencies, and educational service providers commonly host websites to provide information about their agencies and services (Azizan, N. Smith, R. & Cooper, 2011; Maio-Taddeo, 2007; Tubin & Klein, 2007). Internet users, many of whom are parents of young children, turn to these websites to gather information on school choices or educational services (Plantin & Daneback, 2009; Schneider & Buckley, 2002). However, there is scant information on how organizations use websites to inform stakeholders about procedures and available resources that support children who are transitioning to school, and their families.

Background to the Study

Transition from Early Intervention to School for D/HH Children

In many countries, young children who are identified with a disability or special need are eligible to receive early intervention services (EI), which provide support and services not only to the child, but also to the family. As the child leaves the family-centered services of EI (Dunst et al., 1994) and enters the more child-centered school environment, there are new expectations for behaviour, relationship development, and academic performance (Rimm-Kaufman & Pianta, 2000). This shift from the EI system to school can be conceptualized as an ecological transition

17

(Bronfenbrenner, 1979), with strong implications for both child and family, with multiple levels of changes. More specifically, from an ecological theory perspective, the family-centered nature of EI, in admittedly simplistic terms, posits both the child and family as recipients of service provision. By contrast, the child-centered school system targets the child as the prime recipient of service provision. In this case, the parent assumes increased responsibility of advocacy for the child. It is necessary for parents to be knowledgeable about the school system in order to be effective advocates for their children, and, thus, one important aspect of parent preparation for the transition is an understanding of their child's school system and services.

However, there is some evidence that the transition is often not experienced smoothly by parents of children with special needs, who often worry about how their child will manage the changes in terms of academic learning, communication with peers and teachers, or behaviour (McIntyre et al., 2010; Quintero & McIntyre, 2011). In addition, many parents report confusion over Special Education procedures or dissatisfaction with the school's service provision (Janus, Lefort, Cameron, & Kopechanski, 2007; Valeo, 2003). A frequent complaint among families of children with special needs is a lack of communication and information from schools at the time of transition (Villeneuve et al., 2013; Jamieson et al., 2011). It seems critical, then, that parents of children who are deaf or hard of hearing (D/HH) should have ready access to accurate, complete, and easily accessible information on school-based supports and services both prior to and at kindergarten entry. Given the pervasive use of technology in today's society, it seems reasonable for websites of school districts, EI programs, and other education-related agencies to be a potential source for meeting parents' need for information.

Theoretical Framework: Activity Theory

One approach to considering the transfer of information from organization (i.e., EI and/or school system) to parent is through the lens of activity theory, a theoretical framework that has previously been used to examine human-technology interaction (Blin & Munro, 2008; Grujanac, 2011; Nardi, 2001). Based on work by Leont'ev (1978) and influenced by ideas from Lev Vygotsky and Karl Marx, this approach sees human activity as a meaningful, essential unit of life that is tied to the surrounding society and its culture or community. Human activity utilizes instruments, or tools, as mediators between subject and object of doing; these tools can be tangible objects, such as a hammer, but they can also be less tangible, such as a plan or shared idea (Kuutti, 1996). Broadly speaking, activity theory provides a framework for explaining the process of how objects are transformed into outcomes. In terms of educational organizations' use of websites to convey information to parents, the subject would be the educational organization; the tool would be the website; and, the object would be the kindergarten transition process. The outcome would be a smooth transition to school for the child and family. The reciprocal relationship between the subject (the organization) and object (the transition process) is mediated by the tool (the website). The present study utilizes only the aspect of the framework that pertains to how the relationship between the subject and object is mediated by the tool, because it is the web-based information – its content and characteristics – that is the focus of the research. The interactive relationship among subject-tool-object is shown in Figure 2.1.
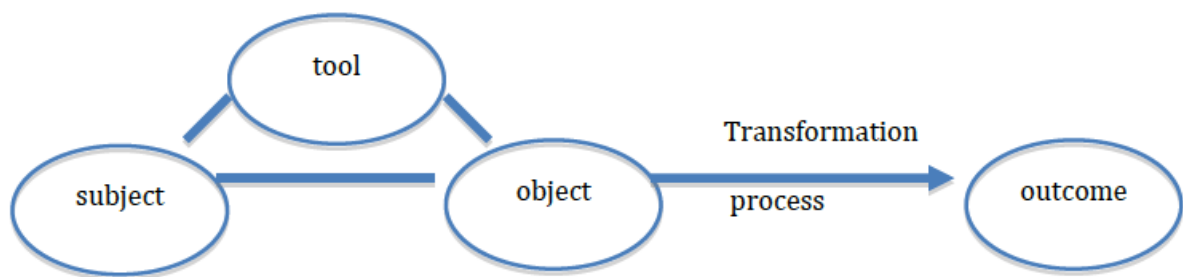
Figure 2. 1 Interactive relationship among subject, tool, and object (Kuutti, 1996).

Websites as an Approach to Information Dissemination to Parents

There is a growing body of literature examining the use and effectiveness of websites for information dissemination. Previous research has examined government, health, and school websites in terms of their content and usability.

Government websites. Governments world-wide have increasingly moved to providing and disseminating information about policy and public services through websites (Azizan et al., 2011; McNutt, 2010). In Canada, each province and territory has a Ministry of Education (also known in some provinces as a Department of Education), as well as a ministry/department that oversees services to children and families, including EI. Each of these ministries hosts a website. Although previous research has examined information accessibility and navigability of government websites (Gwizdka & Spence, 2007), there is little research on the content of information on government sites for public education, particularly with regard to Special Education and the transition to school for young children.

Early intervention and outreach program websites. EI agencies provide services to families of children with special needs, including hearing loss, from the time of diagnosis until school entry. Similarly, outreach programs provide training, education, equipment, and services to families and educators of children, school-age or older, with specific disabilities, including

hearing loss. There is little research on the content of websites of EI and outreach programs. However, one recent study in Australia examining five websites of agencies that serve individuals with cerebral palsy found that three of the agencies provided information packages on the transition to primary school (Lau, 2013), indicating the need for this type of information among families of children with special needs.

School websites. A number of studies have examined the content and accessibility of information on school websites. For example, Tubin and Klein (2007) explored the structure and content of 60 school websites in Israel. They found a wide range of content on the websites, with institutional declarations, social activities, class sites, and administrative information occurring most frequently, but there was little specifically related to Special Education. Miller et al. (2005) reported that more than 50% of the school websites they examined included only five consistent features: physical location of the school, faculty list, a school calendar, a mission statement, and educational links. Hartshorne and colleagues used a checklist to evaluate 50 high school websites and 50 elementary school websites, respectively (2006; 2008). Among their findings was that none of the websites indicated whether they met the criteria for accessibility set forth by the World Wide Web Consortium Web Accessibility Initiative. School districts in rural or remote regions often face additional challenges for building and maintaining websites. These areas may be "digitally excluded" (Warren, 2007) from the Internet due to socio-economic factors or geographical barriers that limit access to broadband provision. Rural or remote school districts may also face difficulties in recruiting staff with expertise in developing and managing websites and web-based services. It appears, then, from the limited research available, that many school websites fall short of their potential as a source of information for families of children with

special needs, with school districts in rural areas facing additional challenges for utilizing the Internet as a source of information to families.

Website evaluation. Education-related organizations need to use websites as an effective tool by providing accessible information to a wide variety of users who will visit the websites for varying purposes. Website evaluation has been examined across domains. From the information sciences, the C.R.A.P. test is widely used: currency, reliability, authority, and purpose (Miller, 2012). From the education domain, Hartshorne and colleagues (2006) developed an evaluation checklist for schools that included sections on design, structure, content, and general elements. Finally, from the health domain, Roberts (2010) developed an evaluation of websites based on "the 5-Cs": credibility, currency, content, construction, and clarity. Taken together, these sources indicate that the predominant common features to good websites are relevant and comprehensible content and easy navigation through design and structure.

Study Rationale

In spite of the widespread use of the Internet by North American families, there is no research on the use or effectiveness of web-based information dissemination on the transition to school for families of children with hearing loss. The province of British Columbia (B.C.) was selected as the location for the present study, given its breadth of services across a range of services for individuals who are D/HH.

The purpose of this study was two-fold: (1) to evaluate the availability and accessibility of web-based information for parents of children who are D/HH and transitioning from EI to school; and, (2) to examine the content of web-based information disseminated by government, EI, and school agencies in B.C. concerning the transition from early intervention to kindergarten. Both questions were considered from the perspective of activity theory.

Method

Given that there is no documented research on websites concerning the transition to school for D/HH children, the literature review was extended to related topics, such as transition to school for typically developing children, children with special needs, and website evaluation, including both education and health. Health and education websites are similar in that they must reach a wide variety of consumers and professionals, and thereby provide easily accessible information to a broad audience. Thus, literature on web-based dissemination of health-related information was included.

An analysis was conducted of the content and accessibility of information on the websites of agencies in B.C. that are involved in the transition from EI to school for D/HH children. Websites that were reviewed for this study included: (a) B.C. Ministry of Children and Family Development and the B.C. Ministry of Education; (b) provincial outreach service programs for the deaf and hard of hearing; (c) specialized early intervention programs for D/HH children; and (d) B.C. public school districts. The B.C. Ministry of Children and Family Development is the provincial government agency that oversees services provided to families and children, including early childhood development, children and youth with special needs, and services for young D/HH children and their families (B.C. Ministry of Children and Family Development, 2013). In B.C., three EI programs provide province-wide services to families of children with hearing loss. The programs provide similar services, but differ in terms of their philosophy of communication approach (one of the programs focuses on listening and spoken language, while the others offer both spoken and sign language approaches). Each of these programs hosts a website, which was examined in this study.

The B.C. Ministry of Education is the provincial government agency that oversees all elementary and secondary schools in the province. As of 2013, there were 60 public school districts in British Columbia, serving approximately 569,728 students; of these, 57,250 were students with special needs. Within this latter group, 1,210 students were identified as deaf, hard of hearing, or deaf-blind (B.C. Ministry of Education, 2013). Each of the 60 public school districts in B.C. had a website with information about the school district and the individual schools within the district. All 60 websites were examined in this study. Policies, procedures and guidelines regarding the transition to school for children with hearing loss or other special needs, as well as information regarding services specifically for children with hearing loss, were collected by searching all websites of the organizations above.

B.C. has four provincial outreach agencies that provide services to children who are D/HH, and that are often involved in some way with the transition to school process. One of these agencies provides specialized hearing equipment for children and consultation services, particularly for students with cochlear implants. The second agency provides consultation and assistance with assessment and educational programming, curriculum support, training to teachers, sign language interpreters and special education assistants. The third agency provides support and training for families and professionals who serve children who are both deaf and visually impaired. Lastly, the fourth agency provides consultative services and training to families and community members of D/HH children, and operates the residential program for the provincial school for the deaf.

Measures

Websites were examined from December 17, 2012, to January 11, 2013. The researcher examined each website and searched within each website for information relating to the

transition to school for children who have special needs, including hearing loss. The following terms were used to search for information relating to transition to kindergarten:

- Special Education, Learning Support Services, Student Support Services

- Deaf, hard of hearing, hearing impaired, hearing loss

- Teacher of the Deaf and Hard of Hearing/Hearing Resource Teacher

- Kindergarten, Transition to Kindergarten

- Special needs, exceptionalities

Web pages with pertinent information to the transition to kindergarten were printed and saved on a computer hard drive.

Measurement tool. Given the wide range and purpose of the websites examined in this study, a broad-based evaluation tool was sought that could be used to uniformly examine all the websites. Roberts' 5 Cs tool (Roberts, 2010) was chosen for three reasons: it can be applied to a wide range of websites, including EI, school, and government; it provides a sufficiently in-depth examination to inform both theory and application; and, it can be used without alteration in the present study.

Websites were examined for evidence of the 5-Cs: credibility, currency, content, construction, and clarity. *Credibility* refers to the knowledge and expertise of the website creator. *Currency* aims to ensure that the website is up to date, with links that work. *Content* includes the website's purpose, as well as the accuracy and completeness of information. *Construction* refers to the website's appearance, such as layout, fonts, and distractions, as well as the ease of finding information. Finally, websites should have *clarity*, which takes into consideration the needs of the target audience, such as literacy level, language background, and accessibility for individuals with special needs (e.g., individuals with visual impairment).

The author has extensive experience as a school district professional, including experience facilitating the transition to school for children who are D/HH, but does not have a background in website design or development. To establish trustworthiness of results, two peer experts were asked to review Roberts' 5-C tool for its suitability to education websites. Both had professional preparation and careers in graphic web design, with three and 27 years experience, respectively. Both experts agreed that the 5-C tool addressed the main features that are important in website development. To establish trustworthiness, each peer expert examined one website from each category using the 5-C tool. Their results were compared with those of the researcher. It should be noted that without first-hand knowledge of the transition procedures and guidelines followed by the organizations whose websites were investigated, it was not possible to verify the accuracy of the content. Therefore, completeness of content was investigated as an operational proxy for accuracy.

Analysis

Thematic content analysis (Braun & Clarke, 2006) was used to identify, analyze, and report themes within the documents found on the websites that provided specific information pertaining to the transition to kindergarten for children with hearing loss or other special needs. An inductive approach was used; the themes were not predetermined, but, rather, emerged through analysis of the documents. This approach provides a systematic method for describing and identifying predominant themes for the purpose of providing knowledge, new insights, and a practical guide to action.

Following the guidelines outlined by Braun and Clarke (2006), analysis of documents was conducted in the following sequence:

1. Become familiar with the data. Documents regarding transition to kindergarten, specifically for children with special needs, were gathered from targeted websites. Data were read and re-read; initial ideas were noted.

2. Generate initial codes. Noteworthy features in the data were coded systematically using Atlas.ti software (2013), and collated according to each code.

3. Search for code families. Codes were grouped into 'families,' or higher level codes.

4. Review code families. A thematic map of the analysis was generated to examine themes in the context of the coded extracts and the entire data set.

5. Define and name themes. The specifics of the themes were refined, and clear labels and definitions were developed for each theme. Interpretations were checked through discussion with research group members to achieve consensus. The research group was composed of six members with masters or doctoral degrees, all of whom have expertise in the early development of D/HH children and their families.

6. Produce the report. Complete final analysis of selected extracts; compelling examples that relate to the research questions and literature are cited in the final report.

Results

Website Evaluation

Website characteristics were examined based on the 5-C framework – credibility, currency, content, construction, and clarity (Roberts, 2010). The author completed evaluation of all websites. Results were corroborated by two peer experts on website development and design, who each reviewed one randomly selected website from each category (i.e., government, EI program, outreach program, and school district). There was agreement between the author's evaluations and those of the peer experts, with the exception that the author found information on

one government website that was not found by the peer expert. In addition, both peer experts reported a few minor construction problems on websites that the author had not noticed. All differences were resolved in discussion. Although the discrepancies were minor, the process underscored the value of involving both content and technology experts in the evaluation process. From this examination, the following results were found.

Credibility. All the websites examined for this study met the criteria for credibility. The websites from school districts, government ministries, and EI programs were active and identifiable B.C. organizations involved in policy or implementation of transition to school for children with special needs.

Currency. One of the features that contributed to currency was the inclusion of dates on the articles and downloadable materials found on the websites, as well as active links and buttons. However, there were also features that detracted from currency; the vast majority of websites examined in this study (90%) did not have a publicly viewable date indicating when the web page had been most recently been updated.

The government ministry websites met the criteria for currency. The websites appeared to be well maintained, with recent dates attached to articles, as well as active links and buttons that led to additional web-based information and resources related to education, services for children, or other ministry websites.

Of the four outreach program websites, one website had posted links that were no longer active and had a page under construction. Three of the programs did not have independent websites. One used the Ministry of Education's website, and two used school district websites to provide information about their programs. Information on these host websites appeared to be current.

Similarly, the three early intervention websites that were examined all had links and buttons that were current and active, which led to other pages within the website, or to related resources on other websites. They all had an "upcoming events" section with current dates, indicating that the website was current and active.

Finally, among the school district websites, the majority appeared to provide current information, indicated by posted articles with recent dates. Ten of the 60 school districts had links that were not working. These were links to community resources or websites with information on various aspects of education.

Overall, the majority of government, EI, and school district websites met the criteria for currency. This was indicated by dates on articles and downloadable materials, posted recent or upcoming events with specific dates, and links or buttons to active related websites.

Content. Websites differed in the presence and completeness of information available on the topic of the transition to kindergarten for children with special needs.

Government websites. The Ministry of Children and Family Development offered a document on EI therapy guidelines, which included a section on transition planning for children exiting EI services and/or entering kindergarten, as well as a downloadable document with general guidelines and recommendations for parents on how to prepare their child for school. This document provided a list and description of Special Education professionals who work in school districts, such as speech-language pathologists, school psychologists, and social workers. There were no documents available on this website that were specific to D/HH children who were transitioning to kindergarten.

Similarly, the Ministry of Education website did not contain any documents specifically for D/HH children transitioning to school. However, it did include resource guides for teachers on facilitating a smooth transition for children with intellectual disability and children with learning differences who were transitioning to school. These resource guides included general recommendations, such as involving parents in the transition plan and using a school-based planning team to make decisions.

Outreach programs. The websites of the four outreach programs provided information on their services and their contact information. Two of the websites provided links to resources for children and families. At the time of data collection, none of the websites of these organizations contained specific information for parents or professionals on the transition to kindergarten.

EI programs. The websites of the three EI programs that serve children who are D/HH in B.C. were searched for information on the transition to school. In general, all the EI websites provided basic information about their philosophy, services, staff, and locations. Only one EI program website provided information on the specific topic of transition to kindergarten. This information was presented as a downloadable workbook for parents, and included a timeline and checklist of tasks to be completed before school entry. Only one EI program website provided a link to one of the four provincial outreach organizations. Although these EI programs are actively involved in the process of transitioning children and families into the school system, this was not reflected on two of the three websites.

School districts. The 60 public school districts of B.C. were examined for information on the transition to school. Districts were categorized as having: (1) no information on the transition to kindergarten; (2) general information for any child who is transitioning to kindergarten; (3)

information specifically for families of children diagnosed with special needs and transitioning to kindergarten; and (4) information specifically concerning D/HH children who are transitioning to kindergarten.

Thirty-six (60%) of the websites had no specific information on how to prepare a child for the transition to school, other than how to register the child. Eleven (18%) websites offered suggestions on how to prepare a child to begin school, such as reading to the child, practicing cutting and drawing, and establishing a regular and early bedtime. Eleven (18%) websites provided information on the transition to kindergarten for children with special needs. This information included district policy and procedure manuals, transition checklists with timelines, and contact information for Special Education staff and administrators. Only one district (1.6%) provided information on the transition to school specifically for children with hearing loss. This was the district that housed the provincial school for the deaf. Overall, the majority of school districts offered little information to support families in transitioning a child with special needs to school, particularly those who are D/HH.

Although provision of Special Education services in public schools is mandatory in B.C., only 48 out of 60 school district websites (80%) offered information about Special Education services. Nineteen (32%) districts also provided links to community, provincial, and online resources for parents of children with special needs. As stated above, there are four provincial resource organizations that address the educational needs of children and youth with hearing loss. Five school district websites (8%) provided parents with the link to only one of the outreach service organizations. Only three websites (5%) provided links to two or more of the organizations.

Construction. The appearance of the websites was evaluated, including layout, fonts, distractions, and the ease of finding information.

Government websites. The ministry websites are under the umbrella of the B.C. government web system. The websites were organized with titles, headings, and subjects that were easy to read and identify. Because the sites were so dense, the most effective way to navigate them was through the search engine, which had minimal loading time and yielded relevant and accurate information for search terms entered. On the ministry websites, there was a button for increasing font size to accommodate readers who require larger print.

Outreach programs. As mentioned previously, one of the outreach programs used the Ministry of Education website to advertise services, and two used the websites of the school districts where the programs were housed. The one program with an independent website had easy-to-read font and adequate white space. Topics were organized by horizontal tabs and vertical button links. This website had a search engine, but no breadcrumb trail, a navigation tool which shows the user's location in a website. Breadcrumb trails are often used in websites with large amounts of content, and usually appear at the top of the page as horizontally arranged text links separated by the />/ symbol.

EI programs. The three EI websites were designed with adequate white space, easy-to-read font, and colourful images of the children and families. Only one site had a search engine, and only one had a breadcrumb trail. On the one site that had information on the transition to kindergarten, it was necessary to use the search engine, as there was no direct link to this information from the home page.

School districts. The majority of school districts used website templates, which addressed many of the construction issues that have commonly negatively affected website design in the

past (Hartshorne et al., 2008), such as horizontal scrolling, inconsistent design across web pages, inadequate margins, and distracting background colours or fonts. Three of the 60 websites had distracting features (pop-up videos or animated graphics) that impacted ease of website navigability. Several school districts placed their Special Education information on a separate website that did not provide a link back to the original website.

Overall, however, the government, EI, outreach program, and majority of school district websites were constructed in such a way as to allow easy access to information.

Clarity. Roberts (2010) recommended that webmasters consider their audience's needs for information accessibility. This includes meeting the needs of individuals with visual impairment and individuals with low English literacy skills.

Government websites. The two ministry websites stated that their web design and development were guided by the World Wide Web Consortium Web Accessibility Initiative, an international community that "develops open standards to ensure the long-term growth of the Web" (World Wide Web Consortium, 2013). However, none of the photographs on the ministry websites had text alternative (ALT) tags, which provide a label or description of the image that can be accessed by individuals with visual impairment. The ministry websites were written in English, with information about French programs written in French. Information on the website was not accessible in other languages, in spite of the fact that over one million B.C. residents speak a language that is neither English nor French (B.C. Stats, 2012). In addition, no information was presented via sign language in video format for individuals who are deaf.

The Flesch-Kincaid Grade Level readability formula (Kincaid et al., 1975) was used to assess the reading ease of the website content. This method measures number of syllables per word and word length of sentences. Scores are based on U.S. grade levels. Information regarding

the transition to school for children with special needs on the ministry websites was calculated to be between Grade 9 – university reading levels. It appears that most of the information on the government websites is aimed at an audience of English-speaking adults with a high school education or beyond.

Outreach programs. Two of the outreach programs provided ALT tags for images on their websites. The other two had no images on their web pages. Reading levels were not evaluated for outreach program websites, as they offered no information on the transition to school.

EI programs. Although all the EI program websites featured photos of children and families, none of the images had ALT tags. For the one EI program that provided information specific to the transition to kindergarten for D/HH children, the Flesch-Kincaid Readability Formula calculated the reading level on this document to be Grade 12. Similar to the government websites, the document author seemed to assume a parent's reading level of at least high school.

School districts. Of the 60 school district websites, only 13 had correctly labelled ALT tags connected to their photographs. Seventeen districts had ALT tags that were incorrectly labelled, while the remaining 30 had no ALT tags connected to photos on their websites, meaning the majority of school district websites had images that were inaccessible to individuals who are visually impaired.

The documents specifically providing information on the transition to kindergarten for children with special needs, including hearing loss, ranged in reading level from Grade 8.3 to university level (Grades 13-19), with an average of Grade 13.3. This indicates that most of the

web-based information on kindergarten transition for children with special needs among school districts assumes that parents have at least a high school graduate reading level of English.

To summarize, among the government, EI, and school district websites, few met Roberts' standards for clarity. Most of the websites did not have ALT tags for users who are blind or visually impaired, and most of the information that was available on transition was written at a level that would likely exclude individuals with low English literacy skills.

Thematic Analysis

Of the 69 websites examined, only 14 documents specifically relating to the transition from early intervention to school for children with special needs, including hearing loss, were found. Most of these documents could be divided into two source categories: (1) Information found in Special Education handbooks or other professional-oriented documents, which outlined procedures and guidelines for identifying and serving students with special needs, and (2) Kindergarten transition timelines and checklists aimed at parent audiences. These documents were analyzed for pervasive themes. Themes were discussed in depth and agreed upon first by one team member, and then by the complete research team to be an accurate representation of the data. The three main themes were: (a) determining educational placement, (b) empowering parents, and (c) team work.

Determining educational placement. The theme of determining educational placement surfaced among all 14 documents. Educational placement refers to the services the child will receive and the type of classroom in which the child will be placed. Placement can be a difficult decision to make, depending on the type and severity of the child's special needs, and can range from placing a child in the neighbourhood school, with support from a specialist and/or teacher assistant, to a school or classroom that is highly specialized and separate from peers in general

education. The examined documents included statements of each school district's philosophy regarding the inclusion of children with special needs in their schools. Many districts aligned their philosophy with that of the B.C. Ministry of Education, which states:

> British Columbia promotes an inclusive education system in which students with special needs are fully participating members of a community of learners. Inclusion describes the principle that all students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their educational programs. The practice of inclusion is not necessarily synonymous with full integration in regular classrooms, and goes beyond placement to include meaningful participation and interaction with others (B.C. Ministry of Education, 2013).

School district documents described their process for determining a child's eligibility for special services, setting up these services, developing Individual Education Plans (IEP), and gathering records and information about the child. One district describes its guidelines as follows:

> Placement, appropriate supports and programming are essential components that must be in place to meet the needs of students with special needs entering the school system….Most students will be more appropriately placed in Kindergarten classes, in their neighbourhood school rather than an immediate placement in a resource room (Vernon School District, 2013).

Among the documents aimed toward parent audiences, there were recommended times within the 11-month period prior to kindergarten entry for contacting district administrators and holding meetings. For example:

May to June: Share information about your child….The school district Mainstream Support Teacher may contact you if your child is going to be in a typical classroom and to set up a Transition Meeting. If your child will be attending a Resource Room the Special Programs Coordinator will contact you to set up a Transition Meeting (Delta School District, 2006).

Empowering parents. In all 14 documents, it was emphasized that parents are a part of the IEP team and an important source for information about the child. Particularly among the transition checklist documents, there was emphasis on the need for active parent involvement in the transition process and the child's academic career. These documents encouraged parents to take the initiative in facilitating the transition process and to ask questions throughout. In fact, four of the documents listed relevant questions for parents to ask about specialized equipment, staffing, and IEP meetings. For example: "Here are some sample questions from other transition meetings… How will my child's progress be monitored? When will the first Individual Education Plan (IEP) meeting be and who will organize it?" (Kootenay-Columbia School District, 2013).

The transition checklist documents encourage parents to be advocates for their children:

You are the parent, and being a parent means that you already imagine your child's future years beyond these transition meetings and kindergarten. More than day-to-day goals, your goals, your hopes and dreams are the heart of your advocacy. Don't lose sight of them! (Delta School District, 2006)

Teamwork. A third theme that emerged from the documents was the importance of teamwork and collaboration. All 14 documents emphasized the importance of collaboration and communication among early intervention, health, and school professionals, and parents. For

example:

> A transition meeting is held to share information between parents, the Supported
> Childcare Consultant and community specialists, District Staff as needed, and the school
> team including Resource Teacher, Classroom Teacher and Administrator. During this
> meeting, parents share information regarding their child's needs and are encouraged to
> complete a student profile to be shared with school staff…This is also an opportunity for
> the preschool team to share strengths, needs, assessment information and the preschool
> education plan with the receiving team (Quesnel School District, 2013).

Overall, among the limited number of documents specifically regarding transition that were available through the examined websites, there was a strong emphasis on the need for teamwork and information sharing between service providers and parents throughout the decision-making process determining placement and services for the child.

Discussion

The purposes of this study were first, to evaluate the availability and accessibility of web-based information disseminated by government ministries, EI programs, and school districts in the Canadian province of B.C. regarding the transition from EI to kindergarten for D/HH children, and second, to examine the content of these documents. Findings were interpreted through the lens of activity theory, which situates websites as tools that mediate communication from education organizations about the kindergarten transition process.

As a D/HH child moves from the ecological environment of home, family, and EI services to the new ecological environment of the school system, information to parents is mediated in different ways, including through the Internet. Thus, it is imperative that websites

provide information that is useable, while recognizing the heterogeneity of the broad community of parents of D/HH children, who vary widely in terms of primary languages, educational levels, and living environments.

Perhaps the most striking finding of this study is the paucity of web-based information pertaining to the transition process from EI for children with hearing loss. It is clear that organizational websites are underutilized as tools for communication to the community, at least regarding the transition to school for young children. The government websites provided general guidelines for the transition to kindergarten, but offered nothing specific concerning children who are D/HH. Similarly, only one of the three early intervention programs, and none of the outreach programs that serve D/HH children in B.C. provided specific guidelines and checklists for families navigating this transition. Furthermore, only 20% of school district websites provided information specifically for families of children with special needs entering kindergarten; another 20% of districts, primarily those from rural or remote regions, offered no information at all about Special Education. These results are similar to those of previous studies (Hartshorne et al., 2006; Hartshorne et al., 2008; Miller et al., 2005; Tubin & Klein, 2007) about the content on school websites, and taken together with the current findings, they indicate serious gaps in web-based information about children with special needs, particularly those with hearing loss.

The majority of government, outreach program, early intervention and school district websites met criteria for credibility and currency, meaning that the sources were credible, and the information was current and accurate in most cases. However, an examination of the content of information indicated serious gaps among the websites with regard to the process and recommendations for creating a smooth transition from EI to school, as well as limited

information about Special Education services, particularly among rural school districts. As previous research indicates (Warren, 2007), rural districts often lack staff with expertise in web design and information technology. Families living in rural or remote areas may have limited access to the Internet, and may need to access information by phone or face-to-face. Thus, these families may be somewhat isolated from information about services and resources that are available to them.

In addition to content gaps on websites regarding the transition to school for children with special needs, there was a lack of attention to accessibility. The majority of information that was available was written at a level that assumes the reader has a high school reading equivalent in English. The recommended reading level for documents meant for the general public is Grade 8 or below (Oermann & Wilson, 2000). An international survey (Statistics Canada, 2003) indicated that 48% of Canadian adults falling below the desired level of literacy needed to understand and use information from texts. This includes deaf adults, many of whom struggle to achieve functional literacy (Convertino et al., 2009). None of the websites provided information through sign language. Additionally, B.C. and other regions in Canada have many families who are non-English speaking, who would most certainly be unable to access this information. Oermann and Wilson recommended integrating more visuals and graphics into materials, rather than text alone, to facilitate consumer comprehension. This would, no doubt, enhance the usability of the information on these websites.

Another area in which the majority of websites fell short in terms of accessibility was toward individuals with visual impairment, who were mostly excluded from fully accessing the images on websites due to the organizations' failure to provide ALT tags for pictures and images. At this time, there is no legislation in Canada requiring access and equality to digital and virtual

worlds. Taken together, these findings indicate that there is much improvement to be made on the content and accessibility of organization websites that disseminate information about services to students with special needs, and their families.

Among the websites that offered specific information on the transition to school, thematic content analysis revealed that these documents focused primarily on placement decisions, inclusion of parents, and teamwork. These themes underscore the importance of a clear process and communication between early interventionists, parents, and schools through transition from early intervention to school. Previous research indicates that a lack of communication and information between professionals and parents contributes to a more difficult transition (Villeneuve et al., 2013; Lovett & Haring, 2003).

The lens of activity theory sheds light on specific ways in which information about kindergarten transition is not adequately or clearly mediated. In particular, Roberts' criterion of content was not met by the majority of websites. Despite the ubiquitous availability of the Internet in homes, education organizations are not utilizing websites extensively or effectively. In addition, the information about kindergarten transition was, in many cases, not clearly conveyed or accessible to many individuals with low English literacy or sensory disabilities. These websites provide a tool for one-way transmission of information, and, thus, particular care should be taken to ensure that the information is mediated in a way that provides easily accessible information to a broad audience, with equitable access to families, regardless of geographic location. Taken together, the findings indicate that it is not sufficient for organizations to provide information about transition without carefully ensuring that it is effectively mediated to the heterogeneous audience of families.

This study has broken new ground in examining web-based information specifically for the transition from EI to school for children with hearing loss or other special needs. Furthermore, the methodological approach of utilizing the 5-Cs (Roberts, 2010) as well as a thematic analysis (Braun & Clarke, 2006) provided a systematic and in-depth examination of website information on one topic.

Recommendations for Practice

In this era when the Internet has become a ubiquitous source for information, it is important for agencies serving children and families to consider the potential of websites as effective tools to reach families, particularly during important milestones such as school entry. Resources are available to help webmasters create useable and effective websites that can act as a guide to families, and streamline the process of transition. Furthermore, administrators of websites should be aware of issues of clarity access for individuals in the community who may have disabilities, such as deafness or visual impairment, or who have limited literacy skills in English. Accommodations such as ALT tags, or information written in simpler English will increase the website's usability. Rural areas appear not to be as reliant on websites, and may need to access additional sources of information until broadband service is widely implemented.

Limitations

The main limitation of this study was the examination of websites originating from one geographical location, namely, B.C., a western province of Canada. However, within this region there are many school districts, three EI agencies for the D/HH with different philosophical approaches, two government ministries, and four outreach agencies, each with a website. In this sense, B.C. is a highly appropriate example to use due to its breadth of service providers and many stakeholders involved in the transition from early intervention to school.

A second limitation was the lack of web evaluation tools available for education-related websites. However, the elements addressed by Roberts (2010) were foundational to and characteristic of good website design and information transmission from a public domain to a wide audience. There was nothing in the 5-Cs that were specific to health issues; thus, it could be used without modification.

Suggestions for Future Study

The findings of this study are suggestive of at least three avenues of research. First, more research is needed on how parents use websites to uptake information, particularly in the realm of education. Secondly, a study that examined the content of websites in depth, such as through discourse analysis, would give an opportunity to critically assess the value of websites as tools of information dissemination. Finally, more in-depth studies could be undertaken to examine the contextual factors that influence the development and maintenance of websites, such as the contrast between rural and urban school districts in regard to use of the Internet for information on EI or school-based services. Results from such studies have the potential to inform educators, administrators, and policy makers on effective ways to transmit web-based information to parents, particularly to prepare them and their children for important milestones, such as the transition from EI to school for D/HH children.

Chapter 3: The Transition From Early Intervention to School for Children Who Are Deaf

or Hard of Hearing: Administrator Perspectives

The transition to school is arguably one of the most important events in the life of a

young child. This transition is often especially challenging for families of children with special

needs (Hanson et al., 2000; Janus, Lefort, Cameron, & Kopechanski, 2007). When the child in

question is deaf or hard of hearing (D/HH), the transition may have additional or unique

complexities and challenges. Due to incomplete or lack of access to reciprocal language, D/HH

children are at high risk for delayed language development, which can permanently affect

communication, academic, and social skills in early childhood and later in school (Spencer &

Marschark, 2010). All of this underscores the importance of a smooth transition that supports

D/HH children and their families. Yet, little is known about the policies and practices used by

school districts and early intervention (EI) programs to support D/HH children and their families

as they make the transition from EI to the school system.

Early Intervention and School Systems

Early Intervention Systems

In recognition of the need for support of early childhood development prior to school

entry, many countries now have policies to support EI services for young children who are

identified with delays or vulnerabilities that can negatively impact their development

(Kamerman, 2000). In the case of children who are D/HH, these services typically consist of

home visits and/or center-based care from professionals who provide training and support to

families regarding such issues as communication options, educational options, amplification, and

advocacy. A small but growing body of research has investigated the efficacy of EI services

since the widespread implementation of early identification of hearing loss (Meinzen-Derr,

Wiley, & Choo, 2011; Moeller, 2000; Watkin et al., 2007; Yoshinaga-Itano, 2003). These studies report a positive effect of EI on child and family outcomes, including child language development.

In North America, EI programs serving children with disabilities are relatively new compared to school systems, and emerged in the 1970s and 1980s (Meisels & Shonkoff, 2000). Many of these programs operate as independent agencies that follow state or provincial government regulation and receive governmental fiscal oversight. They often have their own policy and operational structures, as well as decision-making processes; in essence, EI programs are siloed (Kagan & Kauerz, 2010). However, they are similar in that they often use a family-centered approach, which acknowledges the needs of all family members, not just those of the child with an exceptionality, and seeks to empower families by enhancing individual and family capabilities and encouraging families to partner with professionals in their child's medical care and/or education (Dempsey & Keen, 2008; Dunst, Trivette, & Deal, 1994).

School Systems

In contrast to EI systems, school systems typically focus on children's academic progress rather than their development within the family context. Podvey, Hinojosa, and Koenig (2013) found that parents experience a role shift as their children transition from the family-centered EI system to the child-centered school system. Podvey et al. reported that in EI programs, many parents felt as if they were integral members of their child's team; however, once their child entered school, they felt as if they were "outsiders" on the school team. Parents of children with special needs tend to experience lower satisfaction with the transition process (Janus, Kopechanski, Cameron, & Hughes, 2008), and report significantly more concerns about their children's behaviour, communication, academic ability, and overall readiness for school than

parents of students in general education (McIntyre, Eckert, Fiese, DiGennaro, & Wildenger, 2007). Thus, it appears that parents of children with exceptionalities may need greater support during their children's transition to school than parents of typically developing children. Although D/HH children have often been found to experience delays in communication development and academic learning (Marschark, Spencer, Adams, & Sapere, 2011), no research to date has documented the transition to school for them or their parents.

Ecological Systems Theories

Child characteristics such as degree of hearing loss, mode of communication (e.g., listening and spoken language or sign language) and the presence or absence of additional disabilities may influence the transition to school in terms of educational placement (Shaver, Marschark, Newman, & Marder, 2013). In addition, the transition can also be affected by the child's surrounding contexts, such as peers, families, and neighborhoods (Kohen, Oliver, & Pierre, 2009), as well as local, state, and federal regulations and policies on public education (Gallagher, 1999; Poon, Jamieson, Zaidman-Zait, Curle, Norman, & Simmons, 2016). From this perspective, many social contexts – and the policies and practices that guide the child's transition from one to another - may impact the transition into school.

Ecological systems theory, grounded in the work of Bronfenbrenner (1979, 1986, 2005), is particularly apposite for considering contextual factors impacting child development. Ecological systems theory conceptualizes a child's development and transitions in terms of relationships between children and the contexts that surround them directly, such as family, teachers, and peers. There are also contexts that impact the child indirectly, such as school district decisions, government funding changes, or, more broadly, media and culture. Rimm-Kaufman and Pianta (2000) further developed this notion of direct and indirect influences on the

child through their "Ecological and Dynamic Model of Transition," in which they applied ecological systems theory specifically to the transition to school for young children. While they acknowledged the multiple direct and indirect influences on a child's transition to school, their model posits that the pattern of interactions between the individuals, groups, and institutions of which the child is a part also influence school outcomes. For example, parents may not attend school meetings because of previous negative experiences with school when they were students themselves. If individuals or groups form negative patterns with one another over time, it is unlikely that they will interact cooperatively for the benefit of the child.

Rimm-Kaufman and Pianta (2000) made the case that the pattern of interactions between individuals, groups, and institutions influence the child's transition to school. From this perspective, the pattern of interactions between EI programs from which the child is transitioning, and the school system into which the child is transitioning, merit investigation. The nature and quality of relationships among groups representing EI and school systems may be constrained by parameters based on policies, procedures and guidelines of the respective systems in which they are imbedded. For example, policies may or may not be aligned between the sending EI and receiving school system. In spite of this, to date, there has been little research examining how transition practices and policies of EI and school systems impact the transition to school for children who are D/HH.

Transition Practices

In acknowledgement of the importance of the transition from early childhood settings to school, school districts usually have policies and practices in place to facilitate the transition for young students and their families. A variety of practices have been developed to provide information to families and students to prepare them for school entry. One manner in which

practices can be distinguished is in their intensity; that is, individualized practices versus generic practices. Low-intensity practices, such as distributing flyers, brochures, and open houses, seem to be used more often than high intensity practices, such as face-to-face parent-teacher contact prior to school entry (Pianta, Cox, Taylor, & Early, 1999). However, it appears that high-intensity practices have a stronger effect on a positive transition to school than low-intensity practices. For example, Ahtola and colleagues (2011) investigated the effects of preschool and elementary teachers' transition practices on Finnish children's academic development during the first year of elementary school. They found that the best predictors of children's academic growth arose from collaboration and communication when sending teachers shared written information on students and collaborated on curricula with receiving teachers. Ironically, these were the practices that were least used. Other practices such as gradual entry and small group or individual meetings with parents were also found to be helpful by both teachers and parents. However, overall, most parents of transitioning children reported feeling as though they were not receiving enough information on what was going on at school and how their child was progressing (Petrakos & Leher, 2011).

The desire for more communication with schools following the transition than they currently receive has also been noted among parents of children with disabilities. Researchers have reported that parents of young children with disabilities often report not receiving enough information from the school team after transition (Janus, Kopechanski, Cameron, & Hughes, 2008; Villeneuve et al., 2013). Consistent with this, Schischka, Rawlinson, and Hamilton (2012) found that high levels of communication and collaboration between teachers and parents were important in creating a smooth transition for the child, along with a transition meeting and pre-entry visits to the classroom. However, these authors also noted that there was little evidence of

collaboration between EI teams and school teams, other than the transition meeting. This was consistent with Welchons and McIntyre (2015), who found that preschool-kindergarten teacher collaboration was relatively low for the transition of children both with and without disabilities, although the researchers reported that preschool teachers and parents of children with disabilities were more involved in the transition than were kindergarten teachers. Thus, it appears that although communication and collaboration between sending and receiving educational teams – and parents as well – are an important part of the transition to school for children with or without disabilities, they do not always occur with regularity and frequency.

Little is known about the transition from EI to school for children who are D/HH. Furthermore, virtually no research has examined the policies, procedures and practices used by programs serving D/HH students to facilitate their transition from the EI system to the school system. This study aimed to investigate the practices of organizations – EI programs, schools, and outreach programs – involved in the transition from EI to school for D/HH children. The directors or administrators of EI, school and outreach programs who were selected as informants for this study each had both broad-based and in-depth knowledge of how their respective organizations operated as a whole, as well as how their organizations connected with other programs.

A qualitative study was designed in which semi-structured interviews were conducted with EI program and school program administrators about the transition for D/HH children and their families. Specifically, the research questions were:

(1) What organizational policies, procedures, and guidelines facilitate the transition from the EI system to the school system for children who are D/HH?

(2) What organizational policies, procedures, and guidelines hinder the transition from the EI system to the school system for children who are D/HH?

Method

The Enhanced Critical Incident Technique (ECIT; Butterfield, Borgen, Amundson, & Maglio, 2005; Butterfield, Borgen, Maglio, & Amundson, 2009) was selected to guide data collection and analysis. The ECIT is based on the Critical Incident Technique (CIT), which was developed by Flanagan (1954) as a way to collect direct observations of human activity in defined situations in order to solve practical problems, and uses both qualitative and quantitative elements (Bedi, Davis, &Williams, 2005). The CIT method has been used in studies in a variety of disciplines to gather information about factors and incidents that help or hinder participation in or the attainment of goals in particular activities. The ECIT offers a rich, comprehensive categorical system to represent the experiences of a group of individuals, and strengthens the CIT by the incorporation of a vigorous validation procedure that includes nine credibility and trustworthiness checks. The ECIT also incorporates an additional category, the wish list, which includes participants' feedback about potentially helpful incidents or factors that would have helped them participate more fully or achieve their goals. The ECIT was chosen for use in the present study because it is ideal for understanding administrators' experiences with factors that help or hinder the transition to school for D/HH children.

This study was part of a larger research project, conducted in a region in North America, that investigated the transition from EI to school for children who are D/HH. The EI system in this jurisdiction, which includes three separate programs designed specifically for D/HH children, serves children and families from the time hearing loss is identified until school entry. The communication approaches and philosophies used among the three EI programs includes:

Listening and Spoken Language (LSL), American Sign Language (ASL), and Total Communication (TC), which emphasizes using a combination of spoken language, sign language, and visual aids, depending on the needs of the child.

Upon leaving EI, there is a range of school placement options for students who are D/HH. The majority of D/HH children in North America are included in general education classrooms. They may receive additional support from a teacher of the deaf and, depending on need, may also receive assistance from resource room teachers and allied professionals (speech-language pathologists, occupational or physical therapists. Two resource room programs for D/HH students in three school districts located in two metropolitan areas in this particular jurisdiction provide an inclusive option with at least daily support from teachers of the deaf. For children who communicate primarily by sign language, there is a school for the deaf. Finally, there are two outreach programs that serve the entire jurisdiction. One provides consultation to educational teams to address the communication and academic needs of D/HH students, whereas the other provides assistive listening devices along with consultation and technical support for educational teams that serve children who use cochlear implants and other listening devices.

It should be noted that this particular study was conducted at a time when dramatic changes were occurring in this particular jurisdiction at government levels. The first cohort of children whose hearing losses had been identified through universal newborn hearing screening were entering the school system. These children and their families had experienced several years of EI services to support their development and to prepare for the transition. In contrast, the school system had not previously received children who had routinely been identified early.

Participants

The purpose of the study was to investigate the incidents and factors that facilitate or hinder a smooth transition from EI to school for children who are D/HH, from the perspective of EI and school administrators of programs that serve D/HH children and their families. All administrators selected for inclusion in the study had been involved in the transition process of D/HH children in their respective programs. The administrators from the programs that specialized in working exclusively with children with hearing loss included: the directors of the three EI programs that serve D/HH children and their families; an administrator at the school for the deaf; and, the directors of the two outreach programs. A list of administrators from representative inclusive settings was developed, and included three informants from one particular urban school district, as this district hosted a special education director, a transition specialist, and a principal of a school with a D/HH resource room, all within one school district. In addition, the special education director of a rural school district that included several D/HH students agreed to participate. It was important to include an administrator from a rural school district, as rural schools often have fewer placement options for children with exceptionalities compared to urban school districts – and possibly some unique facilitating and/or hindering factors in the transition process. Collectively, this group (N=10) represented administrators from every type of educational placement option available to D/HH children in the EI and public school system in this geographic area.

Data Collection

Following the receipt of the local ethics board approval, the first author contacted the key informants via email. Interviews were semi-structured. All informants were interviewed individually; nine interviews were face-to-face, and one – the administrator in the rural school

district - was by telephone due to distance. All informants were given a written copy of the questions in advance. One of the informants was Deaf; upon request, the interview was conducted in both Contact Sign (American Sign Language signed in English word order) and spoken English. For all other interviews, spoken English was used. Interviews lasted from 34 to 77 minutes.

A common interview guide was developed and pilot tested. Slight modifications were made depending on the program type (for example, the questions directed to EI administrators varied slightly from those posed to school administrators). Participants were asked to share information about: (a) current policies, procedures, and guidelines used by their organizations for the transition process; (b) perceived facilitators and barriers to a smooth transition from EI to school for D/HH children; and (c) their recommendations for creating a smooth transition ("wish list"). (See Appendix A for interview questions.) All interviews were digitally audio recorded and electronically transcribed by the first author.

Data Analysis

Butterfield, Borgen, Maglio, and Amundson, (2009) specified nine checks to enhance credibility and trustworthiness: (1) audio recorded interviews; (2) interview fidelity; (3) independent extraction of critical incident and wish list items; (4) exhaustiveness – continuing interviews until redundancy in the data occurs; (5) recorded participation rates; (6) independent judge to sort critical incident and wish list items into categories; (7) cross-checking by participants; (8) expert opinions; and, (9) theoretical agreement. Two of the above credibility checks were modified slightly for this study. Modifications were made to the second check, interview fidelity, to better enhance the trustworthiness of this particular study. Butterfield et al. (2009) suggested addressing interview fidelity by having an expert in CIT listen to every third or

fourth interview, to ensure that the CIT method was followed. In the current study, this was achieved by having the second author, who had experience with the CIT method, participate in several of the interviews and read all transcripts. In addition, the fourth check, exhaustiveness, was achieved by focusing on including representatives from all EI settings and all possible public educational settings that served D/HH children.

The critical incidents were extracted from the recorded/transcribed interviews using a word processing program. The first author sorted critical incidents according to an open-ended, inductive process of categorization. Flanagan's (1954) criteria were followed: (1) the incident must represent an actual occurrence of a behaviour reported as critical by the participant; and (2) the incident must be relevant to the activity being studied; namely, the transition from EI to school for children who are D/HH. An incident was chosen if it was a factor that participants described as either helping or hindering the transition from EI to school. Items or situations that participants described as currently lacking, but that would have been helpful to the transition process, were coded as wish list items. Each incident was given a brief description to capture its meaning, and was placed under one of the following headings: facilitators, barriers, or wish list. To follow the check for independent extraction, the second author analyzed a random sample of 25% of the transcripts and extracted critical incident and wish list items. Agreement between researchers was on average 82.3%. Disagreement was resolved by discussion and consensus. An agreement rate of 80% or greater is considered viable, according to Andersson and Nilsson (1964).

The first author used an open-ended inductive approach to look for themes, similarities and differences among the incidents to develop categories. Participation rates (the fifth credibility check) were recorded – the first author included the participant number with every

critical incident and wish list item to calculate the participation rate for each category. Following identification of the categories, an operational definition was written for each one. For the sixth credibility check, 25% of the critical incidents and wish list items were randomly selected and provided to an independent judge, who had professional experience working with D/HH students as they transitioned into the school system. The independent judge was provided with the categories and operational definitions, and matched the critical incidents into the respective categories. Agreement was 85%.

Following transcription of the interviews, and within four weeks of the interview, the seventh credibility check, cross-checking by participants, was completed by sending via email a written summary of the interview to each informant, with an invitation to add, delete, or clarify information. Eight of the ten participants responded. Three of the eight made minor revisions to the summaries, which were included in the final analysis.

To add further trustworthiness to the results, the categories were shared with the other research team members, all experts in the field of deaf education. Based on guidelines from Butterfield et al. (2009), they were asked the following questions:

1. Do you find the categories to be useful?

2. Are you surprised by any of the categories?

3. Do you think there is anything missing based on your experience?

All research team members agreed that the categories were useful. No member reported any missing categories. One member was surprised by the barrier of misinformation (as opposed to lack of information) as well as the barrier of lack of time. Finally, the ninth credibility check, theoretical agreement, was completed by conducting a literature review to search for support of the categories.

Results

The ten participants reported a total of 146 facilitating or hindering critical incidents and wish list items. As seen in Table 1, these items include 70 facilitating incidents (48% of the total), 56 hindering incidents (38%) and 20 wish list items (14%). The following sections describe in detail the components of each category that were cited by 50% or more of the participants.

Table 3. 1 Critical incident and wish list categories

Category	PA *n*	PA %	IN *n*
Helping			70
Interagency communication and document exchange	8	**80**	13
Pre-transition: school personnel observe child	7	**70**	7
Providing information and support to parents	6	**60**	11
Child and parents meet new school community	6	**60**	11
Key person to facilitate transition	5	**50**	5
School preparations	4	40	5
Enough time for adequate preparation	4	40	4
Choosing educational placement	3	30	4
Preparing the child	3	30	8
Supporting parents after transition	1	10	2
Hindering			56
Lack of communication or poor communication among stakeholders	7	**70**	8
Not enough time for adequate preparation	6	**60**	7

Category	PA n	PA %	IN n
Lack of human and financial resources	6	**60**	6
Limited placement options for D/HH	5	**50**	12
Stakeholders' lack of knowledge of D/HH student needs	5	**50**	8
Lack of information/misinformation about school	5	**50**	6
Disagreement among stakeholders	3	30	5
Challenges of mainstream for signing children	1	10	3
No key contact person	1	10	1
Wish list			20
Clearer or simpler transition process	5	**50**	5
Stakeholder communication	4	40	6
More knowledge about D/HH needs among stakeholders	3	30	3
Strong supports to start school	3	30	3
More school resources	3	30	3

Note. Numbers in boldface represent participation rates of 50% or greater.

PA = participants (*N*=10); IN = incidents (*N* = 146)

Facilitating Categories

Five categories were identified as facilitating a smooth transition for D/HH children among 50% or more of the participants: (a) interagency communication and document exchange; (b) school personnel observation of the child prior to school entry; (c) child and parent meeting

the school community; (d) provision of information and support to parents; and, (e) a key person to facilitate the transition.

Interagency communication and document exchange. This was the largest category for facilitators, with eight participants (80%) mentioning 13 facilitating incidents. Facilitators to the transition from EI included such incidents as EI programs notifying school districts of incoming children months prior to school entry, and parents and service providers involved in the D/HH child's transition to school sharing documents with the school, including reports and audiograms. Face-to-face transition meetings with team members to share information about the child and the school were indicated to be helpful and contributors to positive relationships between the professionals of EI programs and schools. One administrator of an outreach program summed up the importance of inter-agency communication:

> There just has to be fluid and effective communication between all those entities [EI programs, school, and outreach programs] to ensure that the student arrives ready to go.

Pre-transition: School personnel observe child. Seven out of ten participants (70%) each reported an incident of making arrangements for the receiving school district's teacher of the deaf or transition specialist to meet and observe the child at home or in preschool. Both EI and school administrators found this direct contact and observation to be very helpful for the transition, as it gave the school personnel an opportunity to get to know the child and his or her needs, and to help the school plan an appropriate educational program. A Special Education director described a typical pre-transition observation:

> We try to facilitate observations for our district staff. For example, we set up observation times where our team, including myself, would go and meet with and observe the child and how they function. Then we set up parent meetings so that the parent has a chance to

58

tell us about the needs of the child as well as the service providers from the early

intervention….and then we look at parental concerns and we'll start to plan.

Child and parent meet new school community. Similar to having the teacher of the

deaf or transition coordinator meet the child, six out of ten participants (60%) shared a total of 10

incidents about the importance of preparing the child and family for the transition by having

them visit the child's future classroom and meet the teacher and school principal prior to school

entry. Participants talked about encouraging parents to take photos of the classroom and

playground, and talk or sign to their child about starting school. They also mentioned the

importance of having parents meet other parents at the school, particularly in specialized

programs, describing this parent-to-parent interaction as supportive to the incoming parents. One

EI program was housed in the same building as a specialized D/HH program. An EI director

described this close proximity of programs as helpful to EI families:

> It helps in several ways. The [EI] parents have a chance to meet other parents from the
>
> elementary program, because we have a family sign language program on Wednesdays
>
> open to [school] parents… so they're welcome to join. Some of the [EI] parents meet
>
> some of the [school] parents, and there's noticeable interaction. The [EI] parents get an
>
> opportunity to meet some of the teachers. They have a chance to get to know staff at the
>
> school, because they're there all the time and they get introduced to each other.

Providing information and support to parents. Six out of 10 participants (60%)

reported 11 helping incidents of providing support to parents. Five participants spoke about

educating parents on the transition to the school system through workshops or informational

meetings, and educating parents on academic expectations for school, as well as advocacy

training. One EI program director described a three-day workshop that her program hosts annually for parents of children transitioning to the school system:

> So we bring them to the point where we say, these are the skills you need for yourself as a parent, an advocate, what you need to know, who do you need to meet, the people who need to be on your team, what you need to expect when you go into the school system.

Two participants talked about how identifying the child's hearing loss early often resulted in parents being particularly knowledgeable and prepared for the transition to school. One school administrator mentioned the recent universal newborn hearing screening program:

> Now I know that they're doing the hearing check on all the newborn babies….It seems like kids with hearing issues, you know, there's a fairly good system out there for capturing them and connecting [parents to resources and services].

Key person to facilitate the transition. Five participants (50%) each reported a helpful incident of having one particular individual in each organization as the key contact person for coordinating the transition. Participants indicated that this factor helped the transition process by reducing the confusion of who to contact for document exchange, communication, and scheduling of meetings or observations. One district had a transition coordinator, who was specifically assigned to facilitate all the transitions to school for children with known special needs. An administrator of a specialized D/HH program described the coordinator's role:

> I really feel that we do a really good job of transitioning our students. . . .We have a district coordinator. And part of her job is to transition students from [EI]. So, she does visits in the [EI program], she liaises with the parents. She sets up the visits to the [D/HH] program and to the school.

Hindering Categories

At least 50% of the administrators identified six categories that they perceived as hindering a smooth transition to school for children who are D/HH: (a) lack of communication among stakeholders; (b) not enough time to prepare for the child's transition to school; (c) lack of information or misinformation about school; (d) stakeholders' lack of knowledge about the needs of D/HH children; (e) lack of human and financial resources; and (f) limited educational placement options for D/HH students.

Lack of communication among stakeholders. In contrast to the facilitator of communication and information exchange among stakeholders, a lack of communication and document exchange negatively impacted the transition process. Seven out of 10 informants (70%) each reported one incident of lack of communication among stakeholders as a barrier to smooth transition to school. One school administrator described how some children entered their school system without communication from either the parent or EI system about the child's hearing loss:

> We haven't figured out a good way to communicate with the community - we have students that just show up in school and for some reason or another we have no indication that this child is going to start and come with a significant hearing loss. So then typically [the teacher] notices behaviours, and that's when we would get a call from the school saying we need some support with this child…. And then, as we dig deeper, the hearing loss comes up.

Not enough time for adequate preparation. Six participants (60%) reported seven critical incidents related to not having enough time as a barrier to a smooth transition. This included late diagnosis of hearing loss, short notice or no notice of a D/HH student entering the

school system, and late applications to specialized programs. When the districts had no prior notice of the D/HH child's entry to school, this resulted in delayed services and provision of accommodations, such as ordering and installing FM systems or hiring sign language interpreters. One outreach director spoke of the importance of advance notice of the child's entry into the school system:

Time is another important factor, because when you're looking at kids that need sign support, districts can't wait [until after the child starts school]. They will not find [a sign language interpreter]. So if everybody's working together, and knows that some of the timelines are there, that's an important factor for success.

Stakeholders' lack of knowledge of D/HH students' needs. Five participants (50%) mentioned eight hindering incidents involving a lack of knowledge about the unique needs of D/HH students. This included lack of parent, administrator, or classroom teacher knowledge of the impact of hearing loss on learning, and the importance of amplification, such as FM systems. Another complaint concerned a lack of knowledge about sign language and Deaf culture among many itinerant teachers of the deaf in the public school system:

You also have to look at the attitudes of the teachers of the deaf and hard of hearing….They don't understand the cultural aspect of it….Some of them get it! And that's awesome. But we're getting more and more and more who just don't!

Lack of human and financial resources. Six participants (60%) – all either outreach program or school administrators - each reported an incident related to lack of funding or lack of specialized professionals as a barrier to the transition to school for D/HH children. This was particularly true for rural areas. Cost was cited as a barrier to accepting D/HH children with

complex needs into a specialized program, as described by one school administrator: "Educating most special needs children costs way more than what we're funded from the [government]."

Limited educational placement options for D/HH children. Five participants (50%) reported 12 hindering incidents related to this category. All three EI program directors had concerns that school programs may not be able to adequately support D/HH children who lacked kindergarten readiness skills. Two school administrators mentioned barriers associated with the few D/HH school programs in the jurisdiction, such as requirements for admission based on degree of hearing loss rather than functional hearing skills, or the exclusion of children outside the district program's catchment area. An EI program director described the difficulties of limited placement options:

> …there aren't enough special ed. classes. There aren't enough specific classes for our kids who are not yet ready to mainstream into a regular class…. And it's a shame. Because I am concerned that when children are in a setting where there are so many needs, different kinds of needs, that it means they are going to be trapped in that, throughout their school career, rather than in a setting that really gets them focused on being very prepared to successfully mainstream into a typically developing class.

Lack of information/misinformation about school. Five participants (50%) shared seven hindering incidents related to parents' lack of information or misinformation about school or the transition process. EI administrators talked about how parents became stressed, not knowing who their child's teacher would be, or waiting for a decision about whether a specialized program would accept their child. Several school-based participants reported that at times, EI professionals misunderstood the guidelines for the transition process or for placement options open to the student, and then in turn misinformed the parents. A district transition

specialist described how it became awkward when the EI program sent families who lived outside their district catchment area to visit their D/HH program:

> Part of my role is to get those folks that are the early intervention service providers to know what we do - not based on what they hear other people think we're doing, but to actually come and see it for themselves. One of the things that I think is important is that they don't talk to parents about stuff until they talk to us. Because it sets up awkward situations where they might have totally misspoke [sic] something that they didn't really know about.

Wish List items

Twenty (20) wish list items were reported by the 10 participants. The two predominant categories were: a clearer or simpler transition process, which met the 50% criterion; and closely approaching the criterion was the wish for better stakeholder communication, mentioned by 40% of participants.

Clearer or simpler transition process. Connected to the barrier category of lack of information/misinformation about the school were five wish list items from five participants (50%) – three EI and two school administrators - for a clearer or simpler transition process for D/HH children and their families, or for a standard process to transition children across the jurisdiction. One administrator of a specialized D/HH program described her wish: "From the early intervention to the school districts - if somehow that could be streamlined, if there were some process, so that everybody knew exactly what they should be doing."

Better stakeholder communication. This category of wish list items was connected to the barrier of lack of communication or misinformation between stakeholders, and the facilitator

of communication/document exchange between stakeholders. One EI director and three school administrators (40%) together reported six wish list items indicating that better communication and understanding among EI programs, parents, and school personnel would help smooth the transition to school. Two school administrators wished for a process whereby they would receive advance notification of all D/HH children entering their school district in a given year.

> I would love access to the students' names from the [D/HH-EI programs] somehow. If at least one person in our school district was able to have [a list of] those students so that we at least can use it for planning and to help communicate to schools. That would be helpful.

Discussion

This study examined a previously unexplored topic – the transition from early intervention to school for children who are deaf or hard of hearing from the perspective of EI, outreach program, and school administrators. Findings are consistent with the Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000), which posits that the pattern of interactions between the individuals, groups, and institutions connected to the child influence the transition to school. There were five predominant findings, the majority of which were related in some way to relationships among stakeholders.

First, communication among stakeholders, including document exchange, was reported to be highly important by the majority of participants. Conversely, lack of communication between stakeholders was seen as hindering the transition to school, and more fluid communication emerged among wish list items. Despite the efforts of EI systems to prepare parents, it seems that misinformation about the school system's transition process and available resources and services still occurred. The importance of clear communication among stakeholders is acknowledged among policy makers and researchers alike. In an examination of school district websites, Curle

(2014) noted that teamwork and collaboration among stakeholders were emphasized in special education and EI procedural manuals.

The second most predominant finding was patterns of relationships between stakeholders either facilitated or hindered the child's transition. Relationships were supported by fluid communication, face-to-face contact including school personnel visits to the child's preschool or home environments, and family visits to the school environment. Relationships were damaged by lack of communication, disagreement, and misunderstandings. Rimm-Kaufman and Pianta (2000) assert that patterns of interaction between individuals, groups, and institutions influence a child's transition and educational outcomes. Because of the environmental discontinuity between EI and school, high intensity practices such as face-to-face contact and family-school communication stimulate family involvement and strengthen connections between school and home (Pianta, Cox, Taylor, & Early, 1999; Welchons & McIntyre, 2015; Wildenger & McIntyre, 2011). On the other hand, this study provides supporting evidence that disagreements, misunderstandings, and lack of communication among stakeholders negatively impact stakeholder relationships and hinder children's transition to school, at least from the perspective of program administrators.

Time, recognized as an important factor in ecological systems theory (Bronfenbrenner, 2005) and the Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000), also played an important role in three main aspects of the transition to school for D/HH children. Ecological systems theory recognizes time as a factor of change – all levels of context both within and surrounding the child change over time. Similarly, the Dynamic Model of Transition acknowledges that child characteristics and contexts interact over time to form patterns and relationships that influence the child's development. Contributing to the relevance of time in a

child's transition to school, a predominant finding in this study was that families needed time to gain knowledge of their child's hearing loss and unique needs, as well as knowledge of the school system they were about to enter to effectively prepare themselves and their child. Thus, ecological factors, such as universal newborn hearing screening and EI program support, provided several years from the time the child's hearing loss was identified until he or she entered the school system. Secondly, administrators needed time to prepare the child's classroom and educators so that appropriate accommodations would be in place for the child. This fostered the development of relationships within the school system between specialists, general educators, and parents without the pressure of last-minute or late preparations. Thirdly, there needed to be time for communication within and across EI and school systems. In particular, this latter factor was important to the development of relationships among stakeholders through collaboration, cooperation and knowledge exchange. When sufficient time was provided through advance notice of the child's school entry, the transition process was reportedly smoother. Thus, time impacts not only child development and relationship development among stakeholders in the transition to school; it also has the practical aspect of allowing for adequate preparation of the child's environment and educational plan.

In contrast, a major hindrance to the transition was the lack of knowledge among school administrators and general education teachers about the accommodations and supports needed to support D/HH students. This has been documented elsewhere (Marschark, Spencer, Adams, & Sapere, 2011; Poon et al., 2016; Rude, Jackson, Correa, & Luckner, 2005). With regard to teachers of the deaf, participants indicated that many in public school systems lacked sign language skills and knowledge of Deaf culture. Overall, this perceived lack of knowledge among stakeholders led to disagreements about educational placement and services. This, in turn, was

reported to have a negative impact on the relationships among stakeholders, which acted as a hindrance to a smooth transition to school.

Finally, a major barrier to D/HH children's transition to school concerned lack of resources; namely, lack of program options, lack of specialists who were knowledgeable about D/HH children's needs, and lack of finances. Specialized separate programs for D/HH children, both schools for the deaf and resource rooms, have decreased markedly in recent years in North America (Miller, 2014; Moores, 2009). In addition, the number of preparation programs for educators of the deaf and hard of hearing is also declining (Dolman, 2010), and it has often been difficult to attract specialists to rural areas (Canter, Voytecki, & Rodriguez, 2007). These factors are consistent with the lack of program options and knowledgeable specialists reported in the present study. With regard to financial resources, the high cost of educating a D/HH child is well known; amplification systems, sign language interpreters, and captioning services are costly for school districts (Chambers, Shkolnik, & Perez, 2003). This particular barrier of insufficient financial resources highlights the influence of factors at the level of the exosystem in ecological systems theory (Bronfenbrenner, 1979), a setting that does not involve the child as an active participant, but where events or decisions occur that influence the child's immediate settings. Examples include school district administration decisions that affect day-to-day classroom practices, or funding decisions made at the provincial or state government levels that affect EI program and school district purchases or hiring. As school districts make difficult decisions about how to spend their money, D/HH children need families and educators to advocate for specialized accommodations and services on their behalf.

In addition, findings – particularly lack of information or misinformation of school systems among EI personnel about the transition process– reflect the fragmentation of services

from siloed EI and school districts (Kagan & Kauerz, 2010). This study supports the need for more coordinated planning among EI programs and school districts through more fluid communication to create a smoother transition from EI to school.

Finally, although it was not a focus of the study, it is noteworthy that there was overall agreement among EI, school, and outreach administrators in terms of the facilitating and wish list categories shared by 50% or more of the informants. However, they differed in two respects with regards to barriers to a smooth transition. First, administrators of schools and outreach programs stressed the impact of a lack of human and financial resources for serving D/HH students, whereas EI administrators did not mention this as a particular concern. Second, although there was agreement among EI and school administrators that a lack of information or misinformation was a hindrance to a smooth transition, the specific nature of the misinformation differed between the two program levels. EI administrators reported a lack of information from schools (e.g., not knowing teacher assignment prior to school entry or placement decisions), whereas school administrators reported concerns about EI programs misinforming parents about the transition process and placement options. These findings emphasize the need for fluid and accurate information exchange between EI programs and schools, not only regarding D/HH children entering the school system, but also with regards to the workings of their respective systems.

Limitations

This study has a number of limitations. First, this study targets a small number of administrators in one geographical area. Second, only public school systems were examined; the transition from EI to private schools may be an altogether different experience. The inclusion of only one administrator in a rural region meant that rural issues were not well represented. Future

research on this topic would be strengthened by broadening the participant base in terms of number, location, and school type (i.e., inclusion of private schools). Nevertheless, the findings broke new ground and were strengthened by the rigorous approach to credibility and trustworthiness adopted in the study.

Contributions and Implications for Practice

This study shed light on a topic for which there is a dearth of research – the transition to school for children who are D/HH. A great deal of emphasis is placed on the individual factors of these children, particularly hearing levels, amplification choice, and communication mode. However, little attention is given to the influence of the child's surrounding contexts, including relationships among the groups and individuals who provide education and care to the child. Administrator viewpoints are seldom studied, despite the fact that their decisions impact direct and indirect service provision to children in EI and schools. All administrators, without exception, underscored both the tremendous importance of the transition to school in the life of a young child, and the challenges and complexities inherent in facilitating a smooth transition for a child with hearing loss. Secondly, this study extends our understanding of ecological systems theory and its applicability to the D/HH population at the point of the transition to school. Future research should examine the effectiveness of transition practices for D/HH children from the perspective of other stakeholders, such as parents, teachers and students, as well as the longitudinal effects of a smooth or difficult transition on the child's academic and social adjustment to school. Finally, future research could investigate ways to align EI or preschool and elementary curricula to help students, parents and teachers navigate the transition to school.

Chapter 4: Working together: Communication between Stakeholders During the

Transition from Early Intervention to School for Children Who Are Deaf or Hard of

Hearing

The transition from early childhood settings to formal schooling is a major milestone in the lives of young children and their families. This transition is influenced not only by the child's readiness for school, but also by a combination of family, peer, school, and community contexts, and the relationships among these contexts (Rimm-Kaufmann & Pianta, 2000). A successful transition from early childhood settings to school involves communication among the individuals and agencies most closely involved with the child and the child's development prior to and following school entry. In fact, best practice recommendations for facilitating a smooth transition to school emphasize strategies for increasing communication between home, school, and early childhood settings (Pianta & Kraft-Sayre, 2003; Pianta, Kraft-Sayre, Rimm-Kaufman, Gercke, & Higgins, 2001).

Background to the Study

Transition to School for Children with Exceptionalities

While the transition to school is of particular importance for all children, families of children with exceptionalities often find it to be a jarring and confusing time (Janus, Lefort, Cameron & Kopechanski, 2007; Poon, Jamieson, Zaidman-Zait, Curle, Norman, & Simmons, 2016). Parents of children with special needs report more concerns about how their child will function in a new environment, compared to parents of typically developing children (McIntyre, Eckert, Fiese, Reed, & Wildenger, 2010). At the same time, these families experience multiple changes during the transition, including not only new teachers and peers for the child, but also changes at a systemic level, with differences in service delivery and approach between family-

71

centered early intervention and child-centered school systems (Hanson et al., 2000). In addition,

parents typically encounter changes in governance from the early care and education system to

the primary education system (Kagan & Kauerz, 2010). Altogether, these changes create a

greater degree of adjustment for families of children with special needs than occurs for families

of typically developing children as the children move into school.

The transition for children with special needs requires ample time for planning to ensure

that the necessary accommodations are in place for an appropriately challenging, yet supportive

educational program (Briody & Martone, 2010). Consequently, families of children with

exceptionalities and their early education service providers are often more involved in the

transition to school, compared to families and preschool teachers of typically developing

children (Welchons & McIntyre, 2015). However, in spite of the importance of relationships and

communication between stakeholders involved in the transition to school for children with

exceptionalities, little is known about the communication that occurs between parents, early

interventionists, and teachers. This is particularly true in the situation of children who are deaf or

hard of hearing (D/HH) where very little has been documented about the communication that

occurs among stakeholders during this important transition.

Considerations for Children Who Are Deaf or Hard of Hearing (D/HH)

Over 90% of children who are D/HH are born to hearing parents (Mitchell & Karchmer,

2004), who typically use spoken language to communicate. Without complete access to the

language of their homes and communities, D/HH children frequently demonstrate delayed

language development and academic underachievement (Holt, Traxler, & Allen, 1997; Spencer

& Marschark, 2009). These delays have been noted well into adulthood (Convertino, Marschark,

Sapere, Sarchet, & Zupan, 2009). Consequently, many D/HH children receive specialized

educational services and support from the time the hearing loss is identified throughout their school years. In addition, roughly 40% of D/HH children have additional disabilities (Gallaudet Research Institute, 2013), and require services to address physical, behavioural or medical needs. Thus, children who are D/HH often need numerous accommodations and services to support their learning and engagement in school.

Parents, early intervention providers, and school district personnel are the primary stakeholders who take part in the transition to school for young children with exceptionalities. Teachers of the deaf (TOD), in particular, are frequently involved in supporting the transition when the child is D/HH. Each of these groups of stakeholders and their respective roles in the transition to school will be discussed.

Parents of D/HH children. Parents often experience intense emotions upon learning that their baby has a hearing loss, including grief, fear, and uncertainty about the future (Jackson, Traub, & Turnbull, 2008). Managing the additional needs of a child who is D/HH, such as amplification equipment and frequent medical appointments, can put considerable pressure on hearing families that may result in continuous stress (Kurtzer-White & Luterman, 2003; Poon & Zaidman-Zait, 2014). During the child's early years, there is a multitude of important decisions to make, including those concerning amplification, communication modality, and educational placement (Decker, Vallatton, & Johnson, 2012; Fitzpatrick, Jacques, & Neuss, 2011; Zaidman-Zait & Curle, 2016). Parents have reported needs for information, therapy services, and service coordination (Fitzpatrick, Angus, Durieux-Smith, Graham, & Coyle, 2008). In addition, parents have reported that it is helpful to receive information and support from other parents, as well as their service providers (Jackson et al., 2008).

On the other hand, a lack of information, particularly during times of transition, has been reported to be frustrating for parents (Jamieson, Poon, & Zaidman-Zait, 2011) and presents a barrier to a smooth transition (Poon et al., 2016). Thus, it is reasonable to assume that parents benefit from a great deal of information and support during their D/HH child's transition from EI into the school system.

Early interventionists. As universal newborn hearing screening becomes more common across the world (Patel & Feldman, 2011), children born with hearing losses are increasingly being identified within a few months of birth. Once identified, they are typically referred to early intervention (EI) programs for follow-up and support. EI programs that specifically serve D/HH children are designed to promote family well-being, positive communicative interactions between child and family members, family engagement in decision-making and advocacy for the child, and parent self-efficacy in supporting the child's development (Moeller, Carr, Seaver, & Stredler-Brown, 2013). This is particularly important for hearing families of children who are D/HH, who are less likely to have smooth and natural communication interactions with their children than are deaf parents (Marschark & Hauser, 2012).

The role of early interventionists in the transition to school is crucial. They often act as a liaison between families and schools by providing families with information on school systems and classroom expectations, contacting school district personnel to provide information about the incoming student, and facilitating transition meetings (Curle, Jamieson, Buchanan, Poon, Zaidman-Zait, & Norman, 2016; Rous, Myers, & Stricklin, 2007).

Teachers of the deaf and hard of hearing. With the majority of D/HH children placed for at least part of the day in general education classrooms (US Department of Education, 2011), many TODs are itinerant, serving children and supporting teachers in different classrooms and

different schools (Luckner & Howell, 2002). Because many classroom teachers have little or no experience in teaching children who are D/HH, collaboration with educators or allied professionals with specialization in deaf education is critical for a D/HH child's smooth transition to school, as well as for the child's long-term academic performance and integration into the school community. The role of an itinerant TOD is significantly different than that of a TOD who works in a self-contained classroom. Itinerant teachers work with both students and adults, providing direct services to the student as well as consulting services to the classroom teacher and other adults who provide services and supports to the student (Luckner & Ayantoye, 2013). The focus of the consultation is on supporting the implementation of classroom accommodations and curricular modifications, to enable students to access academic content and communicate effectively with their teachers and peers (Bullard, 2003). In addition, TODs frequently provide information and support to parents of the children with whom they work. This may include information about hearing loss; educational placement options; amplification systems; and, the child's progress at school (Foster & Cue, 2009). A survey by Luckner and Ayantoye (2013) indicated that itinerant TODs rated consultation with professionals and parents as a highly important aspect of their job, second only to providing direct service to the student. Thus, TODs play an essential role in supporting a D/HH child's transition from EI to school.

Although there is a small body of literature on the transition to school for children with exceptionalities, there is scant research on the transition for children who are D/HH, in spite of the number of stakeholders involved. There is virtually no documented research specifically focused on the communication and relationships between and among these individuals.

Theoretical Framework

The transition to school has often been framed by an ecological perspective (Bronfenbrenner, 1979; Poon et al., 2016; Rimm-Kaufman & Pianta, 2000). This approach takes into account the importance of relationships with respect to the individuals involved in the child's immediate contexts (e.g., family members, teachers, and peers), as well as the influence of indirect contexts (e.g., decisions or policies made at school board or governmental levels). By examining the transition process through an ecological systems model we bring to light the interconnectedness and interplay of the relationships among the child and surrounding individuals, including parents, early interventionists, and school personnel, all of whom interact to form the child's social network (Poon et al, 2016; Rimm-Kaufman & Pianta, 2000). Parents need communication from those involved in their child's education, especially during critical times of transition (Jamieson et al., 2011). Thus, it is important to examine the communication that takes place among stakeholders at the level of the child's immediate contexts – most notably the parents, early interventionists, and TODs -- to understand ways in which communication between and among stakeholders might facilitate and/or impede a smooth transition from EI to school.

Activity theory, which evolved from the work of Soviet psychologists Leont'ev, Vygotsky, and Luria (Engeström, 1999), provides another useful lens for investigating the communication that occurs among collectives and organizations, including the stakeholders involved as the child transitions across two systems – EI and school. Activity theory views human activity as a series of conscious and goal-directed actions by the *subject*, that is, an individual or sub-group who is chosen as the point of view in the analysis, toward a defined *object*, as in objective or goal (Engeström, 2004). The activities of individuals or groups are

seen as a chain of individual and cooperative actions that undergo continuous change and development over a period of time; they are not viewed as a static event (Kuuti, 1996). From this perspective, a child's transition to school is not seen as one event but, rather, as a chain of actions that are fluid and develop over time. When considering a D/HH child's transition to school, the subjects could be the child, parents, early interventionists, or TODs, and the object would be the child's smooth transition from EI to school.

A key component to activity theory is the notion of mediation by *tools* or instruments. These tools may be literal tools, such as a hammer, but can also be more abstract, such as a plan or a common idea (Kuuti, 1996). Tools mediate the relationship between the subject and object, and help to mold and transform the object into outcomes (Engeström, 2001). Previous research has used activity theory to specifically examine tools in activity systems. These include a new pagination system in a news organization (Helle, 2000), virtual learning environments in higher learning institutions (Blin & Munro, 2008), and critical pathways in hospital systems (Engeström, 2001). When considering home-school partnerships in the present study, the various methods of communication used between stakeholders can be thought of as tools toward the object or goal of transitioning a child from an EI program to the school system (Grujanac, 2011).

Other components of activity theory are *community, division of labour,* and *rules*. The *community* is multiple individuals or subgroups who share the same object as the subject. *Division of labour* refers to the tasks that each member of the community performs that are directed towards the object. (Kuuti, 1996). *Rules* refer to the regulations associated with the activity that are explicit or implicit, as well as norms or conventions that constrain actions and interactions in the activity system. They mediate the relationship between the subject and community, and govern the use of tools (Engeström, 2004). Finally, the activity goes through a

transformation process whereby the community adjusts or changes its activities in the activity system to aim for the desired *outcome*.

The following list illustrates how a child's transition to school could be represented by the points, or elements, of an activity system triangle:

- Tools: evaluation and progress reports; email; meetings (formal and informal); telephone calls; training materials

- Subject: child and family

- Object: child's transition from EI to school

- Rules: timelines; school registration requirements; EI program and school district procedures and guidelines; Special Education laws

- Community: schools and EI centers

- Division of labour: teachers, EI professionals and parents provide services, education and/or care to the child

- Outcome: smooth transition for child and family
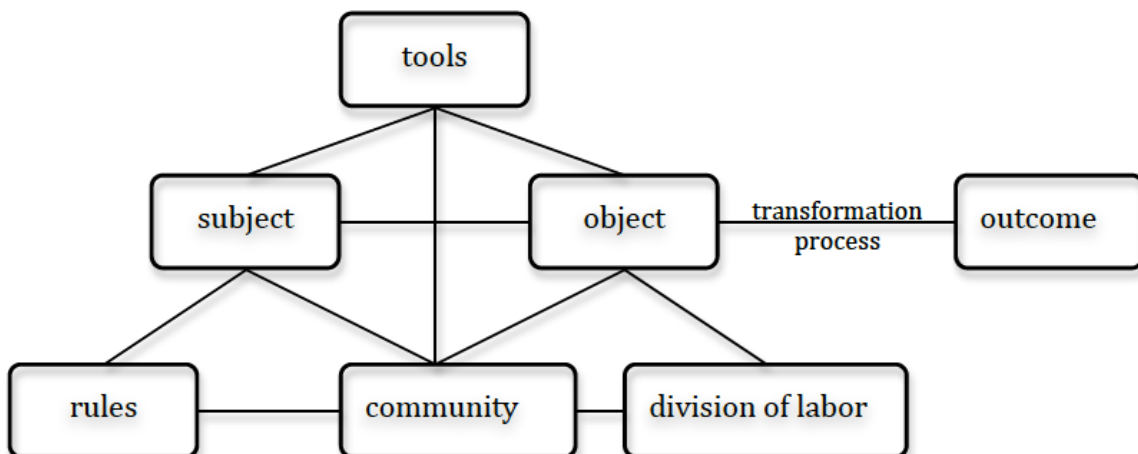
Figure 4. 1 Structure of activity system.

Adapted from "Basic Structure of an Activity" by K. Kuuti, 1996. In Bonnie A. Nardi, ed., "Context and Consciousness: Activity Theory and Human-Computer Interaction, p. 28. Copyright 1996 by The Massachusetts Institute for Technology Press. Adapted with permission.

The tools of communication among stakeholders are of interest in the current study, as previous studies have indicated some communication practices are more facilitative of a smooth transition than others. For example, Daley, Munk, and Carlson (2010) reported that high-intensity practices among teachers, or those involving personal contact such as teacher phone calls or visits to the home or early childhood setting, are more effective in creating a smooth transition to school than low-intensity practices, or those with less personal contact, such as records review and sending written information about the school program to parents. Activity theory has been found previously to be a useful theoretical construct for exploring communication practices among members of school and medical communities, as well as the structural tensions within and between activity systems that interrupt the flow of work. For example, Grujanac (2011) used activity theory to examine Internet-facilitated communication between teachers and parents. Meyer and Lees (2013) applied activity theory to develop interprofessional learning and collaborative practice across agencies that provided services to children. This framework can be used to map the complex systems and practices that exist in interagency work (Greenhouse, 2013), and can help identify underlying systemic tensions that manifest as conflicts, breakdowns, or simply non-use of tools (Blin & Munro, 2008). Thus, activity theory is an apposite choice for a framework to examine methods and topics of communication among community members who are directly involved in D/HH children's transition from the EI system to the school system.

Research Questions

As D/HH children transition from EI to inclusive kindergarten settings:

1. What are the topics of communication between and among the primary stakeholders - parents, EI programs and schools?

2. What communication tools are used among the stakeholders?

3. How do these topics and communication tools appear to facilitate a smooth transition?

Method

Participants and Data Collection

This study was part of a larger investigation that examined the transition of D/HH children from EI to school. Because the focus of the current study was on the communication among stakeholders, it was critical to have the input of the stakeholders most integrally involved in the actual transition – parents, early interventionists, and TODs. Itinerant TODs were selected to represent the school system, as they tend to be the professionals in the school system who are most knowledgeable of the impact of hearing loss on a child's development (Foster & Cue, 2008). Furthermore, they are in regular contact with parents, teachers, administrators and other service providers for D/HH students, and thus have knowledge of the communication that occurs among these stakeholders. For this particular study, participants were the following: (a) parents of six D/HH children moving from EI to inclusive kindergarten classes in public elementary schools; (b) 11 early interventionists in specialized programs for children who are deaf and hard of hearing and their families; and (c) six itinerant TODs. It should be noted that the participants were questioned about communication both in terms of their own unique experiences and general practices and policies of the programs with which they were affiliated. The participants in each

of the three categories were unaware of the identities of the participants in the other two categories. Furthermore, the EI and TOD participants were not serving the children whose parents participated in the study at the time of data collection. Ethical approval from the parents, early interventionists, teachers, early intervention programs, and school boards was sought and granted. Participants signed a consent form agreeing to take part in the study. All interviews were digitally audio-recorded and transcribed by the authors or a research assistant.

Parents. Participants were selected from a group of 12 parents who took part in the larger study. Six of the 12 families met eligibility criteria for inclusion in the current study, namely, that their children were moving from a specialized early intervention program for D/HH children into an inclusive classroom in a public school. Of these six children, three had additional disabilities – one with deaf-blindness and health impairment and two with autism spectrum disorder. Seven parents -- five mothers and one couple (mother and father) -- participated in the individual interviews. All interviews were conducted in English, with five sets conducted face-to-face; one mother was interviewed by telephone due to distance. Two families used languages in addition to English in their homes. Parents were interviewed in late summer or very early fall, just before their child started kindergarten, and then again at the end of the school year. These interviews were semi-structured and explored parent perceptions and experiences with both EI and school personnel pre- and post-transition.

In the first interview, demographic data were collected from the parents, along with information about their child's hearing loss (see Table 1). Parents represented a range of demographics. Two reported low-income, two reported middle income, one reported high income and one parent chose not to report income. Similarly, maternal level of education included one mother with high school education, four with community college degrees or some

university courses, and one with a bachelor's degree. Four sets of parents were born in North America and spoke English at home. Two were born elsewhere, had lived in North America for five and 15 years respectively, and spoke languages other than English at home. Parents were asked about the EI programs with which they and their child had been involved, the preparation for the transition they had received from the EI program and school, and their experiences during their child's first year of school.

In the post-transition interview, parents were asked how the transition to school had been for them and their child, as well as what had helped and what had hindered the transition. In both pre- and post-transition interviews, parents were asked about the individuals connected with EI and school with whom they had communicated with during the transition. In total, there were 12 parent interviews – six pre-transition and six post-transition.

Table 4. 1 Characteristics of D/HH children

Child	Gender	Degree BiHL	Amplification Device	Communication Approach	Additional Disability
1	M	Mild-to-moderate	HA	SSL	Y
2	F	Moderate-to-severe	HA	LSL	N
3	M	Profound	CI	Non-verbal	Y
4	F	Severe-to-profound	CI	LSL	Y
5	M	Severe-to-Profound	CI + HA	LSL	N
6	M	Mild-to-moderate	HA	LSL	N

M = male; F = female; BiHL = bilateral hearing loss; HA = hearing aids; CI = cochlear implant; SSL = sign-supported spoken language; LSL = listening and spoken language; Y = yes; N = no

Early interventionists. In the region where this study took place, there are three specialized early intervention programs that provide services to children who are D/HH and their

families from the time hearing loss is identified until school entry, around the age of five years. The communication approaches and philosophies used among the three EI programs differed, and were described by the respective programs as including Listening and Spoken Language (in which children's listening and speech are emphasized as the primary means of communication), American Sign Language (with an emphasis on involving the family in learning the language and culture of the Deaf community), and Total Communication (in which a combination of spoken language, sign language, and/or visual aids are used, depending on the needs of the child). The researchers asked each program to designate the professionals who were responsible for oversight of the transition process. In this way, it was up to the programs themselves to determine who would be best qualified to participate in the interview. In the case of one program, the identified professional was a social worker who provided family support. In another program, it was a TOD and the family support worker. In the third program, it was a group of eight TODs and teacher assistants, all of whom were involved in the transition process in various capacities and, thus, participated in one group interview. Interviews were semi-structured; participants were asked to describe their roles, practices, and priorities during the transition process, as well as their communication with other stakeholders (parents and educational professionals in school districts). In total, there were three EI interviews, one with each EI program.

Teachers of the deaf and hard of hearing. This particular set of interviews represented the views of itinerant TODs who served D/HH students placed in mainstream public school settings, that is, in inclusive classrooms. Teachers were recruited online through a listserv for TODs in that region, with an invitation to participate in a focus group. Four TODs were interviewed face-to-face in a focus group at an annual teacher convention. In addition, two TODs who were not able to join the focus group due to schedule conflicts asked to be interviewed

individually by telephone. All teachers were female with Master's degrees in deaf education. Interviews were semi-structured; participants were asked to describe their roles, practices, and priorities prior to and after the child's entry into the school system, and their communication with the other stakeholders (parents and EI). In total, there were three teacher interviews.

Data Analysis

Qualitative content analysis of the data was conducted using word processing and spreadsheet software, with coding and analysis discussed with the research team to ensure methodological rigor. The analysis was inductive and iterative.

Following the guidelines outlined by Braun and Clarke (2006), the first author and the fifth author electronically transcribed the data. The first author read and re-read the data and noted initial ideas. Noteworthy features in the data were systematically coded and collated. As code families emerged, a thematic map of the analysis was generated to examine themes in the context of the entire data set. Analysis was continued to refine the specifics of the themes, and develop clear labels and definitions for each theme.

Lincoln and Guba (1985) recommended using four criteria for examining the validity of a qualitative study: (1) credibility, (2) transferability, (3) dependability, and (4) confirmability. Credibility for this study was addressed through prolonged engagement with the data, triangulation through comparison of multiple data sources from three different roles in the transition process (i.e., parents, early interventionists, and teachers), and peer debriefing. Situating the study through the framework of activity theory, as well as linking the current findings to previous research on the transition to school for children with special needs, addresses transferability, or judgment about how well the findings can transfer to a similar population or situation. Dependability addresses the notion of replicability, taking into

consideration factors of instability or design-induced changes. This was addressed by describing the method in detail. Finally, confirmability, or the degree to which the results can be confirmed by others, was addressed by keeping an audit trail of the original data, as well as discussion of method and peer review of the themes and subthemes with the research team over time.

Results

A description of the themes that emerged regarding communication between each participant group – parents, EI providers, and TODs is presented, along with the topics each group raised and discussed. The communication tools used by each group are presented, as well as a narrative description of how it appeared that these topics and communication tools facilitated or hindered the transition.

Communication between Parents and EI

Topics: Parents to EI. Overall, the communication between parents and EI was largely one-way; that is, from EI to parents. Parents spoke about the information they received from the EI program, rather than the topics they themselves raised or the questions they asked their early interventionists. None of the parents reported that there was any information from their EI program that they wanted, but did not receive. It seems that the EI programs anticipated what information the parents would need. As one parent described,

> I didn't need to ask [the EI program questions]. Luckily, the information that was given to me was enough for me to do the transition.

As they moved through the transition, parents kept their early interventionist updated about the child's transition process, such as contact with school personnel, scheduled transition meetings,

or visits to the school. After the transition, parents sometimes turned to the EI program for questions about resources in the community for their D/HH child.

Communication tools: Parents to EI. Parents used primarily face-to-face conversations, as well as email or phone calls when communicating with their EI provider. Although frequency was not under investigation, parents reported a strong preference for face-to-face communication.

Facilitation of transition. Being able to turn to early interventionists for information through a variety of convenient communication tools, such as phone calls or email, was viewed as a facilitator to the transition by parents. Parents spoke positively about the quick responses they received from the EI agencies with regard to their questions. One parent described how her child's speech-language pathologist helped prepare them for the transition to school:

> The speech pathologist came once a week. And she was a very good resource. Like, if there were any questions I had, if she didn't have the answers, she'd come back with the answer the next week.

Even after her child entered the school system, one mother described how she continued to stay in touch with her child's EI program, telephoning them if she had questions about supports or resources. She said, "It's not like I'm calling a service provider. It's like I'm calling friends," indicating that a close, trusting relationship had been developed between the parent and early interventionists. This relationship seemed to facilitate the transition from EI to school for their child.

Topics: EI to parent. Overall, topics directed from EI programs to parents about the transition were largely informational. Topics included the school entry process, information about the school system, amplification technology, and parent and student rights in special

education. Early interventionists guided parents through the lists of tasks they needed to complete prior to school entry, such as contacting the school district and registering the child for school. Early interventionists also provided information about what to expect in the school system by describing kindergarten in terms of class size, academic learning, and social expectations. One early interventionist provided examples of questions parents should pose to schools when getting ready to visit the school their child might attend:

> What are we looking at? How many kids are in there? Who's going to look after the FM [system]? Is your child ready for all of that? Here's an example of a child who's actually doing well in that scenario and look at the skills that they've developed! Have your children developed those skills? Have a have a think about it - go home and think about it.

Additional topics of communication with parents by EI agencies included impact of hearing loss in the classroom, managing audiological equipment, teaching advocacy skills for parents and children, and classroom strategies that support learning for D/HH students.

Communication tools: EI to parent. EI programs used numerous tools when communicating with parents. In contrast to the few communication tools utilized by parents to communicate with EI providers, the EI programs used numerous tools to convey information. Not only did the programs provide face-to-face communication with parents through both informal conversations during intervention visits with the child, but they also held formal parent meetings and workshops to provide education on the transition process and the school system, including panellists of parents and D/HH children who had gone through the transition process. One EI program provided access to their parent meetings and workshops through online webinars for families who lived at a distance. Families that could not attend workshops or webinars were provided DVDs.

87

Facilitation of transition. Parents reported that receiving a thorough amount of information and resources from their EI program through a variety of communication tools (spoken, written, and web-based) was helpful in guiding them through the process of the child's transition to kindergarten, as described by one parent:

> We had a "ginormous" binder of resources, and a [kindergarten checklist] booklet. "Okay, your child is going into kindergarten and this is what you need to start. You need to get them registered, these are the people you need to contact." You know, it's just all of that kind of stuff. Otherwise, you're sort of a little bit lost - where do I begin?

The EI providers indicated that at times, the parents demonstrated stress or anxiety when seeking information about the transition. At those times, the EIs provided both emotional support and information to quell parents' fears. As one EI provider described:

> I think our job is to take the fear away and try to give them these things that we know. It doesn't have to be an overwhelming process.

The EI providers felt that providing information to parents about the school system in which their child was entering was important for preparing families to enter the school system by empowering them to advocate effectively for their child:

> What we're doing by providing information to families is empowering them. And then it's really up to them. This is where we have to step back and just let them do the research for themselves for their particular child. And that happens, and that's what's exciting.

Communication between EI and school

      Topics: EI to school. Most of the communication from EI programs to schools occurred in the early part of the transition process, i.e., prior to the child's school entry, and the majority of the topics of communication from EI programs to schools were around informing the district about the incoming child. EI programs contacted school district personnel – the assigned TOD or the administrative representative of the school system - to inform them that the child would be attending their district, to provide information about the child's current skills, and to invite the TOD to meet the family and observe the child in the preschool or home setting. Early interventionists also communicated recommendations for services and accommodations that they thought the child would need in the school system. However, several TODs reported that EI programs were inconsistent in alerting them to incoming students. They received information more often from the child's community audiologist than from the EI program. One TOD explained:

> We are dependent on the audiologists saying [to the parents], "Is it all right if I give your name and phone number to the teacher of the deaf in the school district that you think you might be attending next year?"

      Communication tools: EI to schools. The EI providers initiated contact with the schools through email or phone calls to TODs or other school personnel involved in coordinating the transition to school for children who are D/HH. Once communication was established, information on the child was shared through formal reports and face-to-face conversations during observations or transition meetings.

      Facilitation of transition. The TODs reported that receiving written reports about the child was helpful, particularly information about the nature and severity of the child's hearing

89

loss, so that the teacher and school district could prepare for needed accommodations, such as ordering amplification equipment or hiring a sign language interpreter. The EI providers also considered the observation in the EI program and meeting with the receiving TOD or school district personnel to be highly important for the transition process. For example, one EI professional described the importance of having the TOD observe the child interacting in an environment where sign language was used:

> I connect with the [TODs] and invite them to come to our preschool to meet the child and the parents, especially because children who come from our program, regardless of their level of hearing and their spoken language skills, they still are signing kids to some extent, so I want to make sure that the teachers see them in a signing environment to get an idea of that need.

Topics: School to EI. The informants in this study reported little communication from schools to EI programs. No TOD reported initiating communication to the EI programs, either to inquire about incoming children or to notify EI programs of their transition process. The early interventionists indicated that this hindered their knowledge of transition practices and key contacts among school districts:

> Every year, with certain districts, the process shifts a little bit. And you think that you know it, and then you go, okay, well, that's a little bit different than last year. So, we're never quite sure what's happening in the districts.

Communication between Parents and School

Topics: Parents to school. As might be expected, the majority of communication initiated by parents prior to their child's school entry was with school personnel (administrators, office managers, and TOD or classroom teacher). At this point, parents provided schools with information on their child's health, hearing status and physical needs; inquired about teacher assignment; and made requests for accommodations and services. After the child started school and time progressed, parents increasingly communicated with their child's direct providers, namely the classroom teacher or TOD. Parents provided updates to the school team on the child's health, hearing status, and mood, and asked for frequent updates on how the child was doing at school.

Communication tools: Parents to school. Parents reported using a variety of communication tools – face-to-face meetings, both formal and informal, and written information about the child when communicating with their child's school team and administrators. For example, one parent described a brochure she made about her child for the school, based on advice from her EI program:

> We actually did a brochure about [our son] … you know, just different tips on how to help his learning experience. Because you could be talking and writing on the chalkboard and [he] was not going to hear anything you said. That he needs you to be looking at him because he still lip-reads a lot. So different things like that. So the teacher would know what his needs were as a deaf child coming into the system.

Overall, parents strongly preferred face-to-face communication with their child's teachers. For example, one mother adjusted her work schedule so that she could check in with teachers as she dropped off her daughter at school in the morning:

I was lucky that most of the year I wasn't working, so I could go to school, and I could [talk with the teachers]... Now, I start [my job] at ten o'clock instead of nine. So I can drop kids off and I still have time to talk.

For parents who were unable to see teachers on a daily face-to-face basis, effective communication was achieved through email or a communication notebook that was passed back and forth between parent and teacher. One parent described how she appreciated being able to reach teachers by email:

Because I basically drop him off before the teachers show up and pick him up after they've gone home, I didn't have a lot of contact directly with his teachers. But I knew emailing them was no issue and we were able to communicate that way. So, I think it was a big help that I didn't have to lose the contact and I didn't have to be there to make that face-to- face contact.

Facilitation of transition. According to the parents, frequent communication with school personnel helped facilitate the transition by keeping them well informed of the transition process, and how their child was progressing at school, along with details about their child's services and accommodations. Having multiple communication tools as described in Figure 4 also helped, as it ensured that parents were able to reach teachers, even when their schedules did not allow for face-to-face interaction. Most parents indicated a preference for daily communication with the school team, as exemplified by one parent:

I like being involved with everything, like knowing what's going on and how he's doing and at least picking up or dropping off and a check in with the teacher and the [educational assistant] to ask, "How was his day today?"

However, despite having regular communication with the school team, some parents were reluctant to share their concerns or complaints, wanting to avoid conflict or fearing negative repercussions for their child. For example, one mother was concerned that her daughter was unfairly accused of misbehaviour in the classroom:

> I felt like I was going to say something to the teacher, but I bit my tongue because I don't want her to be singled out because, "Your mom is mean to me," (laugh), you know? Like, when you have a battle, you have to find the right battle to choose, right?

This reluctance to express some concerns may indicate that a close, trusting relationship had not yet been developed between parents and school personnel, as parents described they had with the EI program.

Topics: School to parents. Prior to school entry, communication from school to parent was largely informational, and came from a school administrator or TOD. Topics included information about the school building, the schedule, teacher assignment, and what services and accommodations the child would receive. This included information about the acoustics in the classroom, amplification equipment, support staff assignment, classroom teacher assignment, and parent rights and responsibilities. Parents were welcomed to visit or observe a classroom prior to school entry, as described by one TOD:

> We encourage the parents to bring the child to come play on the school playground equipment over the summer, and to come and visit the last week of August with the kindergarten teacher, and that seems to [reduce] that anxiety for the parents.

Once the child was attending school, communication from school to parent was largely from classroom teacher and TOD, both of whom provided updates to the parents on the child's

academic progress, class participation, and the functioning of the child's listening devices. One parent described communication she received from the TOD regarding her daughter's hearing:

> [The TOD] came to monitor [my daughter] in the classroom. She made a note that [my daughter] is always asking people like, "What? What?," which means she's not hearing properly. And she [is not producing] 's' sounds or 'th' sounds properly.

Communication tools: School to parents. Teachers and other school personnel used a variety of formal and informal tools to communicate with parents. First and foremost, face-to-face communication was used. This included both one-on-one informal interactions, as well as formal meetings, such as transition meetings, IEP meetings, kindergarten open house, or district-wide orientation meetings for parents of children with special needs. Letters were used as communication tools from the school district to parents, informing them of kindergarten orientation or classroom assignment.

After the child entered the school system, more personal communication between classroom teachers or TODs and parents occurred through phone calls, email, and communication books. One TOD described her communication with parents using both formal and informal means:

> [We have] the IEP meeting at the start of the year plus conversations, lots of conversations leading up to that. And then second term when I write my progress report, I'll usually be in touch again, although there are often emails [with parents] in between. Sometimes I'll phone them if it's needed. And then at the end of the year, we'll have a sit-down IEP review.

Transition facilitators. The TODs were aware of the anxiety that many families felt about the transition to school, and addressed this by initiating communication with them prior to school entry. In one situation described by a TOD, this also provided an opportunity to gather important information about the child from the parent:

> I remember calling the parent and in a discussion, finding out [the child] was actually more complex, and had [cerebral palsy] and other things. Even a year later, [the parent] said to me at one point how anxious she was, and she remembered how I was the first person to make contact with her, and just how having that dialogue made her feel much more comfortable that [her child's] needs were going to be accommodated for.

Parents who received limited or no communication from the TOD or school prior to or during their child's start in school reported this as a barrier to a smooth transition from EI to school, and indicated that they felt frustrated. One parent described the kind of information she wished she could receive prior to her child starting school.

> [I would like to know] a little bit ahead to know what's coming. Like, we don't know how often we are going to get speech [therapy]. And they [the school district administrators] don't know who's going to be the teacher. And we don't know what the schedule is going to be...like, everything's unknown.

Additional Stakeholder Communication

Although not part of the original research question, one unanticipated theme that emerged from the data was the importance of parent-to-parent communication.

Topics: Parent to parent. Nearly all parents mentioned communicating with other parents prior to and during the child's school entry to discuss issues related to transition to

school. Parents sought and received advice from other parents, and enjoyed hearing the experiences of parents and children who had been through the school system.

Communication tools: Parent to parent. Communication between parents occurred in EI or school-led workshops or orientations. Parents in this study also reported having informal conversations and exchange of information with other parents at school or through online social media.

Transition facilitators. Having opportunities to meet and interact with parents of other D/HH children, or children receiving special education services added to their knowledge and understanding of the transition process, and helped alleviate their anxiety. One parent described a meeting with a panel of parents and D/HH children set up by the EI program, speaking on the transition process:

> They actually had a little boy on the panel… and he told us what it was like in school. So, the information was just so valuable as a parent, not knowing where you're going, giving you some ideas of what to look forward to.

Another parent described how listening to other parents' questions at a school district orientation was helpful:

> I listened to the other parents' questions, which would have been questions I may not have thought to ask - that type of stuff really was informative.

Discussion

This study aimed to examine the communication among key stakeholders – namely, parents, early interventionists, and TODs – as young D/HH children transition from EI to inclusive kindergarten settings. We examined the topics and tools of communication among

these stakeholders to determine how these factors appeared to help (or hinder) the transition to school, from the perspective of the respective respondents. The three research questions will be discussed below.

The first research question concerned the topics of communication between the primary stakeholders, namely the parents, EI programs and schools. The predominant finding was that sharing information about the D/HH child and the school system the child would be entering facilitated the transition for all stakeholders involved. The different stakeholders needed different types of information. Prior to the transition, schools needed information on the child's nature and degree of hearing loss, as well as details about any other special needs that the child had in order to plan the child's individualized educational program. Parents needed information about the services and accommodations the school would provide, including school-based amplification systems, to make sure that the child had access to instruction and appropriate supports. The early interventionists in this study did not seek any information about the child during the transition process; their role was to act as mediator between the child's family and school, providing information to families about the school system and about playing the role of advocate for their child, while at the same time, providing information to the school about the child's needs. EI providers also played an important role in arranging meetings between school personnel and families. The role of mediator is important to guide families as children transition from early childhood settings to school settings, where the expectations change from supporting child development to focusing on academic achievement. This finding supports previous findings, such as Villeneuve and Hutchinson (2012), who reported that parents of children with exceptionalities recognized a need for a key person with knowledge of the school-based special

education system to guide them through the transition system. It seems that in the present study that EI programs served in that key role, at least in the early part of the transition process.

Parents' needs for information were sometimes embedded in the context of anxiety or stress. Perhaps because of their emphasis on family-centered care and empowerment of parents, early interventionists were the ones to whom parents seemed most comfortable demonstrating this anxiety. They responded by providing information or support to parents that they felt was appropriate. When the children entered the child-centered school system, all parents reported that their anxiety continued. The TODs were aware of the parents' anxiety and made an effort to reach out to them prior to school entry; however, over the course of the school year, some parents voiced a reluctance to disagree with the school team, fearing damage of the relationship between themselves or their child and the teacher. Previous research indicates that parents feel less part of the team when they leave the family-centered EI system and enter the child-centered school system (Hanson et al., 2000). Furthermore, the formation of trusting relationships between parents and professionals takes time (Rimm-Kaufman & Pianta, 2000). Thus, some of the parents continued to rely on the relationship they had with the EI programs, and turned to them for information, resources, and support. Although the EI programs stressed the importance of preparing parents for the role of advocate, it seems that at times, the parents did not feel empowered enough to voice their concerns or disagreements within the school system.

The second research question concerned the communication tools that were used among the stakeholders. The predominant finding was that when initiating communication with EI or school personnel, parents expressed a clear preference for face-to-face communication. Once the child was in the school system, parents were satisfied with the method that was most convenient for daily contact, which included handwritten communication books or email, if face-to-face

98

communication was not available. On the other hand, when EI and school personnel initiated communication towards the parents, they used a wide variety of means to communicate. In fact, EI programs even included electronic tools, such as DVDs and webinars, operating multi-modal systems to ensure that parents received the information on transition.

Activity theory posits that tools are used most effectively when they are used by all the members of a community towards the shared object (Engeström, 2004). In the current study, achieving the outcome of a smooth transition to school for D/HH children seems to have been accomplished through shared tools that involved personal, one-to-one communication. High-intensity practices, such as personal contacts or home visits are considered more effective in creating a smooth transition for the child, as opposed to low-intensity, less personal practices, such as open houses, flyers, or records review (Pianta, Cox, Taylor, & Early, 1999). In the present study, high-intensity practices, using communication tools like the communication book, email, or face-to-face conversations were clearly preferred by parents, and were used by all stakeholders.

The third research question concerns how the topics and communication tools among stakeholders facilitated the transition. All stakeholders recognized the need for parents to receive a great deal of information about the school system prior to the child's entry to kindergarten. In terms of communication between EI and school, EI programs initiated communication or provided information to schools about the child's current pre-academic, social, language and hearing skills, although TODs reported that they did not always receive information about D/HH children from EI programs. It is noteworthy that there was no mention of school personnel initiating communication with EI. During the transition process it appears that among the stakeholders in this study, that communication was largely one-way, from EI to school or from

EI to parent. This is likely because the communication involved information about the child, rather than reciprocal information about the transition process. Thus, EI programs were not always clearly informed about specific school district transition practices. Curle et al. (2016) found that EI programs did not always fully understand school district transition policies, and were at risk for providing misinformation to families. Therefore, more reciprocal communication between EI programs and schools about the transition process may better facilitate the transition to school for children and families.

Once the child entered the school system, the parents in this study preferred frequent, if not daily, communication exchange from teachers about the child's behaviour, academic progress, and functioning of the amplification equipment. The shift from a family-centered model to the new setting and child-centered model is often a difficult adjustment for families (Dunst, Boyd, K., Trivette, & Hamby, 2002). Many parents of children with exceptionalities feel as if they are outsiders in the school system, as opposed to the EI system (Podvey, Hinojosa, Koenig, 2013). Providing parents with frequent updates on their child's academic progress and behaviour seemed to help alleviate some of the parents' anxiety, and facilitated a smooth transition to school.

A final finding that emerged from this study is that parents found a source of information and support in other parents of D/HH children, through both face-to-face dialogue and through Internet-based social media groups. The EI programs recognized the need for parent-to-parent communication and invited children and families who were already in the school system to meet with parents of children who were beginning the transition from EI to school. The importance of mentors for parents of D/HH children has been documented in previous research (Narr & Kemmery, 2014). Parents of D/HH children have stated a desire to connect with others who

share similar experiences (Jackson et al., 2008; Jackson, 2010). The current study supports the notion that parent-to-parent support is important during the transition to school.

Limitations and Directions for Future Research

Obvious limitations to this study were that it was conducted in one geographic region in North America and represents the experiences of a small number of participants. However, this study adds to the body of research on transition to school for children with exceptionalities, particularly children who are D/HH. While the current study examined D/HH children transitioning from specialized EI programs into integrated settings, future research should investigate the transition of D/HH children who did not participate in specialized EI programs. Also, the transition from EI into specialized settings, such as D/HH programs or schools for the deaf should be investigated, as well as the transition to school in other geographical regions, both urban and rural. In addition, as technology continues to evolve, future research could shed light on ways in which technological advances in communication tools can strengthen fluid communication among stakeholders. One final limitation was that we did not ask the participants directly about their topics and tools of communication – this information emerged in the context of discussing factors that facilitated or hindered the transition. However, future studies could investigate this line of research further by asking participants directly about how and what their communication with one another entailed. Results from such studies have potential to inform parents, teachers, EI providers and administrators of effective ways to manage communication and transition practices to provide a smooth transition to school for children who are D/HH.

Chapter 5: General Discussion

The overall purpose of this dissertation was to examine the transition from specialized early intervention (EI) programs for children who are deaf or hard of hearing (D/HH) and their families into the school system, from multiple perspectives, including parents, early interventionists, teachers of the deaf (TODs), and program and school administrators. The research questions were:

(1)   What information is available to parents about the school system their child is entering, and who provides this information?

(2)   What policies and practices do EI programs, outreach programs, and school districts follow, and what practices help or hinder the transition?

(3)   How do stakeholders (parents, early interventionists, and school personnel) communicate and collaborate together during the child's transition to school?

This investigation into the transition from EI to school for children who are D/HH is important in at least two respects. First, a smooth transition for children with exceptionalities requires that the receiving system understands the child's special needs and the appropriate accommodations that are required to support that child in a system that is designed for children who are typically developing. D/HH children require accommodations to facilitate their access to language and social interaction at school. Accommodations may include amplification systems, sign language interpretation, visual aids, tutoring, or modifications to the learning environment to improve acoustic quality and visual access. Second, given the low incidence of hearing loss among children, many classroom teachers have limited experience with this population and their needs, and they may need information about how to adapt their instruction to allow the child

meaningful access to instruction. A smooth transition aims to ensure both that individuals in the receiving system are knowledgeable, and have the child's accommodations in place. Without specialized services and accommodations, D/HH children are at risk for academic failure (Conrad, 1979; Holt, Traxler, & Allen, 1997; Spencer & Marschark, 2009)

The findings from the three investigations presented in this dissertation underscore the importance of the impact of relationships among stakeholders on D/HH children's transition to school. In this chapter, I will: (a) synthesize the research findings presented in the three studies, (b) discuss the novel contributions and implications of the current research, (c) outline study limitations, and (d) suggest directions for further research.

Synthesis of Research Findings

Research Question 1

The first broad research question pertained to information available to parents about the school system their child was entering, and who was providing this information. It is acknowledged that it is important that information about D/HH children who are transitioning from EI to school be available to all stakeholders; namely, early interventionists, schools and parents. The focus of the first research question is on the information available specifically to one of these groups, namely parents. Previous research has shown that parents of children with exceptionalities have greater needs for information and support when they enter school, compared to parents of typically developing children (Hanson et al., 2000; Villeneuve et al., 2013; Welchons & McIntyre, 2015). Study 1 addressed this question by looking at websites of organizations involved in children's transition from EI to school, and the information the websites provided on this topic. Study 2 addressed this question by examining transition processes from the perspectives of administrators of EI programs, outreach programs, and school

districts. Study 3 examined the transition from the perspectives of parents, EI providers, and TODs, who described the information parents received about the transition to school, as well as the sources of this information.

The information provided to parents about the transition fell into three broad categories: how to prepare D/HH children for school; the school system and available supports; and, advocacy. Each topic will be discussed in turn, along with the providers of this information.

First, both EI programs and school districts provided information to parents about how to prepare their children for school. For young D/HH children this is particularly important. Not only do families need to prepare their children for school in typical ways, such as getting on a regular sleep schedule, but due to their high risk for language delay (Spencer & Marschark, 2010), D/HH children may not understand that they will be starting school and spending their days with new teachers and peers. Thus, EI programs and schools in the present research study encouraged parents to bring their children prior to the start of school to meet the teacher and visit the classroom to become familiar with their new environment. In addition, it is critical that D/HH children begin to develop self-advocacy skills at an early age, such as letting the teacher know when their amplification systems are not working. The EI programs worked directly with children to teach them self-advocacy skills prior to school entry. This information and preparation was found to be helpful in smoothing the transition to school for young D/HH children and their families.

Second, EI programs and schools provided parents with information about the school system. They explained the child's educational placement options, and encouraged parents to investigate these programs. Kindergarten checklists were available for download by a few school district websites and one EI program to guide parents through timelines for completing tasks

prior to school entry, such as registering their children for school and scheduling transition meetings. Because of the unique needs of children who are D/HH, schools often need advance notice of the child entering the school system to hire or assign TODs or other support staff (e.g. sign language interpreters, special education assistants) and order amplification equipment. Similarly, parents needed information in advance about how their child's specialized instruction and accommodations would be provided.

Third, EI programs provided training to parents on how to advocate for their children. Again, given the fact that hearing loss among children is a low incidence disability, it may be anticipated that parents will often need to provide information to teachers about their child's hearing loss, language level, and support strategies that can help the teacher communicate with the child. Parents were also offered education by EI programs on the nature of their child's hearing loss and how it would affect their child's learning at school. Parents were also offered information about their child's rights in the Special Education system, and were encouraged to request the services and accommodations that they felt their child needed. When young children and families enter the child-centered school system, the supportive family-centered EI services that families may have come to rely upon cease. Thus, parents need to be able to work effectively and directly with school personnel as advocates for their children's educational needs.

Another source of information, as described in Study 3, was other families of D/HH children. While EI programs and schools are important -- and expected -- sources of information to parents about the transition to school, other families of D/HH children may provide a unique perspective and valuable information to parents whose children are beginning the transition. Parents in Study 3 spoke positively of the advice they received from other families who they encountered through EI trainings, school orientations, or online. Previous studies have noted the

importance of parent-to-parent support among families of D/HH children (Henderson, Johnson, & Moodie, 2014; Narr & Kemmery, 2015), which promotes feelings of mutuality and connectedness.

Overall, when parents felt that they had adequate information about the school setting that their child was entering, all stakeholders viewed this as a facilitator to the transition. For example, in Study 3, one parent described how the information she received helped her feel less lost, and gave her a pathway to begin the transition process. Providing information to families about the school system and their child's needs was described by one early interventionist in Study 3 as "empowering them." Other literature supports the importance of empowering of parents in parent-professional partnerships (Dunst et al., 1994; Turnbull, Turbiville, & Turnbull, 2000), and have emphasized the importance of information exchange in the context of these partnerships (Hanson et al., 2000; Laverick, 2007; Rimm-Kaufman & Pianta, 2000). Rimm-Kaufman and Pianta (2000) pointed out that the early school transition period is a "sensitive period", forecasting later school success. Their Ecological and Dynamic Model of Transition posits that positive relationships between parents and school personnel support a smooth transition to school for children. Thus, ensuring that families were well-informed about the transition process, the school system and their children's needs was an important step in their children's transition to school, as it supported the child's development and facilitated the development of parent-professional partnerships.

At the same time, it was clear that information provision to parents and information uptake by parents were not consistent. For instance, in Study 3, a parent expressed frustration about not being informed prior to the start of school as to who would be her child's assigned TOD. In Study 2, school and outreach administrators reported that not all parents of D/HH

children were knowledgeable about their children's hearing loss and did not always inform the school about their children's special needs. Stakeholders reported these instances as barriers to a smooth transition to school. It is reasonable to assume that parents who are not knowledgeable about their child's hearing loss and educational needs will struggle to be effective advocates for their children at school. Furthermore, lack of information about the school system has been previously linked to parent dissatisfaction with the transition process (Janus et al., 2008; Villaneuve et al., 2013). Thus, while information exchange about the child and school system among stakeholders facilitated the transition to school for D/HH children, a lack of information exchange hindered the transition.

If we view the findings related to this first research question through the lens of activity theory, the disconnection from information that some parents of D/HH children experience would be regarded as a contradiction, or a structural tension within the activity system (Engeström, 2001). For some parents, there was a contradiction between the *object* (the child's transition to school) and the *tools* (the communication of information from members of the *community* – EI programs and schools), as illustrated in Figure 5.1 , which shows a second generation activity system (Kuuti, 1996). Contradictions are represented by crooked lines. In this framework, contradictions are not viewed as problems, but as catalysts for change. For example, if a parent did not receive information from an EI program about the importance of informing the school district about the child's hearing loss, this caused a contradiction or disruption in the activity of transitioning the child to school, and also indicates a disconnection between parent and the rest of the community. It also indicates an opportunity for constructive change in the transition process.
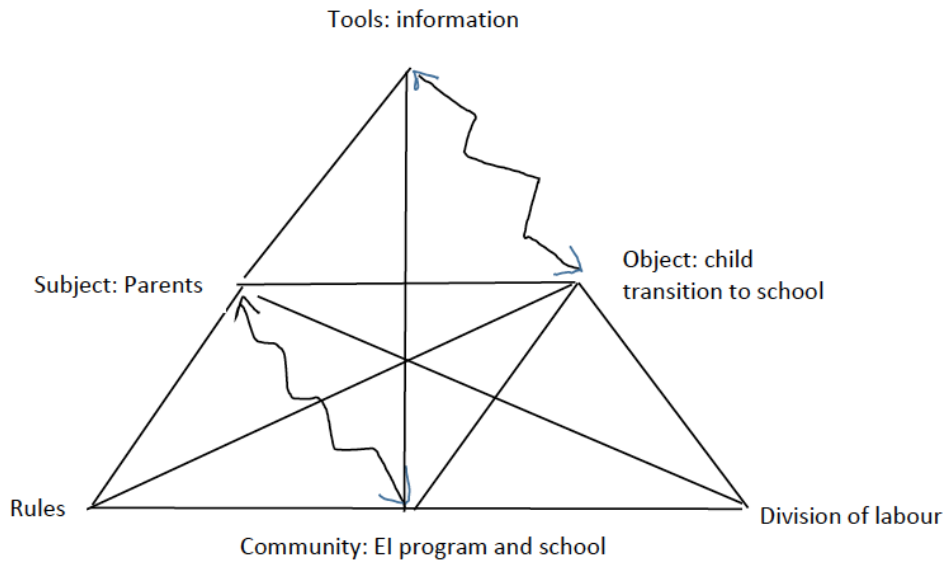
Figure 5. 1 Contradictions in activity system for parents of D/HH children.

There were different ways that each group of stakeholders could have been more proactive in ensuring that parents received this information on the transition to school for their D/HH children. First, because every school district in B.C. hosted a website, school district administrators could have provided more information through this tool. While many provided information on kindergarten registration, they often failed to provide information on Special Education services, placement options, and parent roles in preparing children for school and participating on IEP teams. Websites are an important tool for information dissemination to parents because many parents use websites to gather information about school choices or educational services (Plantin & Daneback, 2009; Schneider & Buckley, 2002). Second, EI program and school district personnel did not always communicate with one another about their organization's transition processes, which resulted in some parents receiving misinformation from EI programs. Annual meetings or documentation from school districts to EI programs that list new personnel contacts or any district-wide changes in the transition process might be helpful. Third, informants indicated that not all parents participated in EI program trainings or school

orientation meetings to prepare themselves and their children for the transition, either by choice or by circumstance. Community audiologists or paediatricians who serve children with hearing loss may need to take on a more active role in connecting families to EI or school-based services.

Research Question 2

The second broad research question investigated the policies and practices that EI programs, outreach programs, and school districts follow to transition young D/HH children from EI to school, and which practices helped or hindered the transition. This question is important because previous research indicates that transition practices involving more personal contact between teachers and parents are more effective than less personal, group-oriented practices (Daley, Munk, & Carlson, 2010; Pianta, Cox, Taylor, & Early, 1999; Quintero & McIntyre, 2011). Given that D/HH children face greater challenges in learning, particularly in integrated settings where much of the instruction is delivered via spoken language (Antia, Jones, Reed, & Kreimeyer, 2009) the children need the support of policies and practices that promote not only the provision of specialized services and accommodations, but also encourage communication among service providers and parents, all of which support academic success for D/HH children (Reed, Antia, & Kreimeyer, 2008).

Study 1 addressed this research question by examining documents from government, school district, outreach program and EI program websites on policies and practices relevant to the transition to school for children with exceptionalities. Study 2 investigated this question by inquiring about transition-related policies and practices among EI program, outreach program, and school administrators. Study 3 used interviews with parents, EI providers, and TODs to gain their perspectives on the practices that best facilitated (or did not facilitate) D/HH children's transition to school.

One major finding across the three studies was that EI programs and school districts held policies or practices that supported the inclusion of families in the transition process. For example, in Study 1, documents retrieved from websites of organizations involved with the transition to school for children with special needs emphasized the importance of family involvement in the transition process and the child's academic career. EI programs and schools encouraged parent participation through the provision of information about schools, both the child's particular school and the school system in general. EI programs, in particular, also reported providing training on advocacy, as well as emotional support to parents during the transition. In addition, families were encouraged by EI programs and school personnel to share information about their child with the receiving teachers and school administrators to help them get to know the child and plan for needed services and accommodations.

Generally, parental involvement in school has been positively associated with improved school outcomes for students (Cooper, Crosnoe, Suizzo, & Pituch, 2010; Dearing, Krieder, & Weiss, 2008; Fan & Chen, 2001). While all children need support from home and community to thrive at school, this is particularly important for children who are D/HH, who also need access to the language(s) of home, community and school. For example, Calderon (2000) found that active parent involvement in developing mutual communication with the child, along with involvement in the child's school-based program were predictors of early reading skills and positive social-emotional development. Similarly, Luckner and Muir (2001) and Reed et al. (2008) found that family involvement facilitated academic success among D/HH children in integrated classroom settings. In addition, effective parent advocacy was a factor in predicting successful inclusion among D/HH students (Eriks-Brophy et al., 2006). Given these findings, it

is particularly important for parents of D/HH children to be involved at the point of transition to school.

If we view the immediately previous finding through the lens of activity theory, parents are invited into the community of EI and school-based professionals to participate in the collective activity of transitioning their child from EI to school. In the division of labour, parents play an important role in providing specific information to the team about their children's skills and needs, as well as participating in team decision-making. Through their involvement, parents can develop relationships with school personnel, which -- as previously stated -- can enhance the child's development (Bronfenbrenner, 1979; Rimm-Kaufman & Pianta, 2000).

Another major finding was that the practices that were agreed upon by informants in Studies 2 and 3 to be most effective at facilitating the transition were ones that involved frequent communication among stakeholders, sharing information not only about the child, but also about school systems and their current transition policies and practices. Previous research indicates that information sharing and collaboration between early childhood service providers and kindergarten teachers smooth the transition to school (Ahtola et al., 2011; Gill, Winters, & Friedman, 2006), as these practices are positively associated with children's adjustment to kindergarten (LoCasale-Crouch, Mashburn, Downer, & Pianta, 2008). While these studies have found that communication among individuals about transitioning children is less than optimal, this dissertation provides evidence that stakeholders are also not always communicating clearly with one another about school-based transition policies and practices. For example, in Study 2, school administrators indicated that early interventionists sometimes misinform parents about their child's eligibility to attend a D/HH program outside the family's school district jurisdiction. Understanding school district transition practices, particularly available placement options and

what they offer, is critical for parents of D/HH children. Because of the low incidence of the disability, there are typically a limited number of specialized D/HH programs available, especially in rural and remote areas. Secondly, misunderstandings about transition practices can negatively affect relationships between EI programs and schools, as described in Study 2. activity theory would view this as a contradiction in the community's understanding of the rules in the activity system. The Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000) lends support to the development of context-sensitive policies that consider the relationship dynamics between parents, service providers, and the organizations that they represent. This includes frequent contact between school districts and EI programs. As stated previously, if school districts regularly communicated with EI programs about any new personnel contacts or any district-wide changes in the transition process, this could facilitate the transition to school for young children.

Research Question 3

The third broad research question of this dissertation concerns how stakeholders who are involved directly or indirectly with D/HH children (parents, early interventionists, and school personnel) communicate and collaborate during children's transition from EI to school. This is particularly important for D/HH children. Because hearing loss among children is low incidence, parents, TODs and EI providers frequently need to provide information to and collaborate with educators who have limited knowledge and experience serving D/HH children, to ensure that the children have access to academic learning and socialization opportunities with peers. Furthermore, the combined interactions among these stakeholders and the relationships they develop with one another over time influence children's transition to school and school outcomes (Rimm-Kaufman & Pianta, 2000). Study 1 investigated this question through examination of

one-way, web-based communication from EI programs, outreach programs and school districts to the public about transition to school for children with exceptionalities. Study 2 addressed this question by examining the perspectives of administrators, who had a bird's eye view of their organizations, and could describe practices for communication and collaboration at both individual and organizational levels. Study 3 examined this question through interviews with individuals involved in the child's immediate contexts – namely, parents, EI providers, and TODs, who reported their personal experiences with the transition.

Across these three studies, it was clear that the majority of information came to parents through EI programs and school districts, with the EI programs acting as mediators of information between parents and schools prior to the transition; even after the transition, parents sometimes contacted them for additional information or resources. Lovett and Haring (2003) similarly found that parents come to rely on EI providers for information and emotional support. All stakeholders used a variety of tools to facilitate the transition, both high-intensity, personalized communication and low-intensity, group-oriented communication. Information was shared through a variety of methods – written, electronic, and spoken exchanges. EI programs and TODs recognized parents' need for information early in the transition process, and communicated with them directly, in person, by telephone or by email. All stakeholders reported that these high-intensity practices reduced parent anxiety, and smoothed the transition to school for children and families. This finding supports previous research findings that indicate that high-intensity practices are more effective in creating a smooth transition to school than low intensity practices (e.g., Rous, Myers, & Stricklin, 2007; Schulting, Malone, & Dodge, 2005). In addition, these findings are consistent with Rimm-Kaufman and Pianta's Model of Ecological and Dynamic Model of Transition (2000), which proposes that the quality of relationships among

those involved in children's transition to school are enhanced by frequent contact, agreement on goals, and a focus on supporting the child's development. For families of D/HH children, high-intensity practices may be particularly important, because many of these children have unique needs that impact their ability to participate in school. Thus, school-based teams and parents need opportunities to share information about D/HH children and their needs to ensure that accommodations are in place when children start school. For example, in Study 3, a TOD described how she called a parent to introduce herself, and learned that the deaf student she was about to receive also had cerebral palsy and other needs. Thus, providing parents of D/HH children an opportunity to describe their child's unique needs, and participate in planning the child's educational program can facilitate the transition to school.

However, although parents reported that high-intensity practices were helpful, Studies 2 and 3 provided evidence that they often felt uncomfortable about disagreeing with school decisions or practices. In Study 2, administrators reported instances of parents who avoided communicating with district personnel. In Study 3, parents spoke of feeling reluctant to disagree with school personnel, not wanting to damage their or their child's relationships with them. For example, one parent from Study 3 described a situation where she felt the teacher was treating her daughter unfairly:

> I felt like I was going to say something to the teacher, but I bit my tongue because I don't want her to be singled out because, "Your mom is mean to me," (laugh), you know? Like, when you have a battle, you have to find the right battle to choose, right?

Previous findings suggest that parents of D/HH children often feel at odds with professionals, and consequently find it difficult to be involved with their children's educational programs (Calderon & Greenburg, 2000). However, as D/HH children head into the school

system, it is important that parents, who carry a great deal of knowledge about their children's strengths and learning needs, feel as though they are able to voice their concerns freely in an equal partnership with school personnel. Bronfenbrenner (1979, p. 218) cautioned that an imbalance of power between parents and school personnel could "undermine the motivation and capacity of those persons who deal directly with the child to act in his behalf." Through the lens of activity theory (Engeström, 2001), parents' reluctance to disagree with school personnel is a contradiction within the system, and an opportunity for school districts to find a way for parents and teachers to discuss and negotiate their differences.

Taken together, the findings in this dissertation indicate that through information sharing, stakeholders are forming patterns of interaction and relationships with each other. These patterns of interaction are particularly important for D/HH children, given their needs for support from both school and home contexts to develop language, social-emotional skills, and academic competence. These results add evidence to support the notion that relationships among those involved in D/HH children's contexts influence their transition to school. If the relationships focus on sharing current, accurate information, communicating frequently, and focusing on agreed-upon goals that support the child's development of skills, these factors will contribute to positive transition outcomes, and have potential to establish a pathways towards positive school outcomes (Rimm-Kaufman and Pianta, 2000).

Strength of the Research

Several aspects of this research are noteworthy. First, one strength is the research topic itself. The transition to school for D/HH children has been largely unexplored. The results of this study could potentially have a positive influence on policy making and practices among EI programs and school districts to support the delivery of high-intensity practices or guide

115

communication between EI, parents and schools. Second, few studies on the transition to school for children with exceptionalities have presented perspectives from multiple sources. This dissertation included informants who were directly involved with the child, i.e., parents, EI providers and TODs, as well as those who were indirectly involved, yet influential, i.e. program administrators. The information retrieved from the examination of websites in Study 1 provided a wide-range perspective on what information about their programs for children with exceptionalities organizations deemed should be made publicly available.

Another notable strength of this research was the use of two theoretical frameworks. The Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000) builds on the work of Bronfenbrenner (1979, 1986), and conceptualizes the influence of relationships between the children and their surrounding contexts and how these contexts and relationships change over time. This framework provides a rationale for examining the direct and indirect relationships among the stakeholders involved in the child's transition to school. Specifically, Study 3 provided a longitudinal view of the parents' experiences by reporting their perspectives pre-transition and post-transition, documenting how their relationships with EI and teachers developed over time. By adding the framework of activity theory, I was able to closely examine the collective actions of the individuals and organizations involved in the transition, and indicate points in the process where further strengthening or alternate procedures would facilitate a smoother transition. For example, contradictions emerged in the activity system whereby parents, particularly in rural areas, were not communicating with school districts to inform them of their child's hearing loss prior to school entry. Parents may need other community members, such as EI providers or community audiologists to inform or encourage them to take this step.

Finally, another strength of this research lies in the methods used. Study 1 combined qualitative and quantitative content analysis for examining websites. I used Roberts' 5-Cs tool for a thorough examination of the websites' credibility, currency, content, construction, and clarity with Braun and Clarke's approach to thematic analysis to examine the themes among the available documents that were relevant to the transition to school for children with exceptionalities. Together, these methods yielded a thorough examination of the web-based information that is provided to the public by agencies involved in a D/HH child's transition to school. Study 2 used the Critical Incident Technique, a rigorous qualitative method with nine checks to enhance trustworthiness and credibility. Study 3 used Braun and Clarke's (2006) step-by-step guidelines for conducting thematic analysis. Combined, these methods provided an examination of the transition to school for D/HH children that was rigorous and trustworthy.

Novel Contributions of the Research

This series of studies investigated a topic that was previously unexamined – the transition from early intervention to school for children who are D/HH. Few studies have examined perspectives on the transition from multiple sources – websites, administrators, EI providers, teachers and parents. In addition, this is the first study to examine school and EI websites regarding information specifically on Special Education, the transition to school, and accessibility for individuals with disabilities.

The examination of the relationship between EI programs and school districts has largely been uninvestigated. EI and school systems are often siloed (Kagan & Kauerz, 2010), resulting in a lack of continuity as children and their families move from one system to the other. This study underscored the importance of relationships between EI programs and schools, and

117

emphasized the need for reciprocal communication between these organizations to share knowledge and increase mutual understanding of how each system works.

While numerous studies have examined the transition to school for children with special needs (e.g., Janus, Lefort, Cameron, Kepechanski, 2007; Velleneuve et al., 2013; Welchons & McInyre, 2015), none have examined this topic specifically for children who are D/HH. The current dissertation sheds light on the importance of issues that were unique to this population during the transition from EI to school. In Study 2, the lack of knowledge of the needs of children with hearing loss among administrators, teachers and parents emerged as a hindrance to transition. Given the low incidence in hearing loss among children, it is reasonable to assume that administrators and classroom teachers would have limited experience in educating D/HH children, and are in need of information about their unique needs in an educational setting. In Study 3, parents indicated that they wanted to be informed not only about classroom teacher assignment, but also TOD assignment. For D/HH children, the TOD frequently acts as the case manager, coordinating services for the child, checking audiological equipment, and providing consultation to other professionals and parents (Luckner & Ayantoye, 2013). Frequency of service provision to the child by the TOD or speech-language pathologist was a topic that emerged among parents in Study 3, as well as how the child's audiological equipment was functioning.

Lack of resources – both human and financial – negatively impacted supports and services to children. Rural or remote areas in particular often have difficulty recruiting specialists in education (Kitchenham & Chasteauneuf, 2010) and healthcare (Dussault & Franceschini, 2006). For parents, knowing the needs of their children and learning the necessity of advocacy

for obtaining the appropriate supports and services, may have contributed to their feelings of anxiety during the transition to school.

In addition, these three studies extend the findings of research on the transition for children with exceptionalities, adding support for the use of high-intensity transition practices in school systems (Daley, Munk, & Carlson, 2010; Pianta, Cox, Taylor, & Early, 1999; Quintero & McIntyre, 2011). High-intensity practices contributed positively to the development of relationships, particularly between EI providers and parents, and teachers and parents.

Finally, Study 1 and Study 3 applied activity theory to examine the transition to school. This framework has previously been used to examine collective activity in workplaces (e.g., Helle, 2000) and in learning (e.g., Issroff & Scanlon, 2002); however, it has not previously been applied to the examination of the collective activity that occurs in EI and educational systems that serve children with exceptionalities.

Theoretical Implications

Rimm-Kaufman and Pianta (2000) contended that it is not only child characteristics that determine readiness for school; the transition is also influenced by the pattern of interactions between the individuals, groups, and institutions connected to the child that occur over time. The three studies in this dissertation support the Ecological and Dynamic Model of Transition and extend its use to the D/HH population. Each study provides insight into how relationships of the individuals and agencies that surround the child facilitate or hinder a smooth transition from EI to school. First of all, the analysis of web-based documents in Study 1 indicates that programs and school districts serving D/HH children are well aware of the importance of including parents in decision-making and collaboration and communication between stakeholders during the transition to school. However, findings from Study 2 and Study 3 indicate that collaboration and

communication among stakeholders does not always occur. This can damage relationships among the stakeholders, which could indirectly affect the child's transition to school.

Study 3 investigated this line of research further to suggest that the relationships among stakeholders are influenced by the frequency of personal communication that occurs among them. It was important that this communication occur through face-to-face interactions, or through other means of one-to-one communication (e.g. written notes, emails or telephone calls), and that it occur in a timely manner. For example, parents spoke positively about receiving quick responses to their questions from EI providers and teachers. EI providers spoke of the importance of inviting TODs to meet the family and observe the child prior to the child's school entry. In addition, TODs discussed the importance of communicating with the parents prior to and during the child's first year of school. Thus, it is important for agencies and families not only to consider children's school readiness in the transition, but to foster positive relationships with one another to support the children.

In addition, activity theory provides a framework to examine the activity of the child's community (parents, EI providers, and school personnel) as they work collectively, aiming for the outcome of a smooth transition to school for the child. The findings from an analysis using activity theory might help organizations involved in D/HH children's transition to school identify the contradictions in their systems, and ultimately move toward a smoother process. This framework, like the Ecological and Dynamic Model of Transition, supports the development of positive relationships among community members involved in D/HH children's transition to school. Activity theory contributes to this by helping to identify tools that are most effective for mutual communication.

Practical Implications

Although these studies emanate from one particular region, and two of the studies have small sample sizes, they nevertheless reveal important findings that may have applied significance to parents, teachers, EI providers, administrators, and policy makers in developing a smooth transition to school for children who are D/HH. First of all, these three studies support the use of high-intensity practices for D/HH children and their families as they enter the school system. Early, Pianta, Taylor, & Cox (2001) noted that high-intensity practices require more preparation from the teacher and school, such as generating class lists early, so that teachers have an opportunity to contact students prior to the start of school. It is reasonable to assume that districts that value and endorse high-intensity practices should compensate teachers for the time it takes to visit or telephone families, for example. As stated previously, because the needs of D/HH students are varied and unique, direct, personal communication between parents and teachers, and opportunities to meet the student are important for school-based teams to help them plan and establish accommodations and specialized services before the child starts school. For D/HH children with additional disabilities or complex needs, communication among EI, parents, and school personnel are particularly important, as these children may require multiple services and specialists to address their needs. Thus, this study adds support to the recommendations that school districts generate class lists early, and provide funding and training to support teachers in using more high-intensity practices than was reported in this study.

A second practical implication relates to the finding of the role EI programs play as mediator between parents and schools. It is important that EI programs increase their knowledge of specific district transition policies and guidelines so that they can provide accurate and current information to parents. This is a challenge, as EI programs often coordinate with multiple school

districts, which may differ in terms of transition practices. However, these studies underscore the importance of coordination between agencies for a smooth transition to school. EI programs and school districts will need to communicate with one another not only about the incoming child, but also about teacher assignment and their current guidelines and practices for determining educational placement and service provision.

Third, as use of the Internet as a source of information continues to grow, it is important for programs and school districts to design high quality websites that are well-constructed, and provide useful, clear and accessible content for families of children with exceptionalities. This includes posting current and relevant content about Special Education services and providers, and the transition process for children with special needs entering kindergarten. Additionally, this content should be made accessible to all members of the community, including those who are visually impaired or who have lower levels of literacy. Accessibility can be accomplished through increased use of visuals and graphics, providing content that is written at a Grade 8 level or below (Oermann & Wilson, 2000), and by providing ALT tags for pictures and images for individuals who have visual impairment.

Fourth, given the apparent lack of knowledge among classroom teachers and administrators about D/HH students that emerged as a finding in Study 2, general education teacher preparation programs may need to include coursework on children with hearing loss. Although hearing loss among children is a low-incidence disability, it has a high impact on learning. Teachers and administrators should be prepared with some knowledge of the educational needs of these children as they welcome them into their classrooms.

Finally, although family-centered care in EI programs focuses on empowering families to advocate effectively for their children, this study provides evidence that parents may feel uneasy

about voicing disagreement with school personnel over decisions about their child's services, accommodations, or treatment at school. Given the likelihood that classroom teachers in integrated settings have limited knowledge and experience about educating D/HH children, and the further likelihood that itinerant TODs may not see the child on a daily basis, it is critical that parents be able to advocate effectively for their child by stating disagreement with practices or treatment that they feel do not support their child. While EI programs should continue to provide information to parents about advocacy, school districts should also consider providing conflict resolution training to teachers, and encourage an environment of openness and consideration of parent perspectives.

Limitations and Future Research

Although this dissertation contributes to the body of research on school transitions and D/HH children, limitations exist and should be recognized. First, while the unique limitations to each study are outlined in the chapters, one overarching limitation is that these studies were conducted in only one geographic region. Website design, transition practices, and communication between EI programs and schools may differ across other regions and countries. Further investigation is needed in other regions or countries to determine the generalization of these findings.

Second, there was a relatively small number of participants in this study. However, given the low incidence of paediatric hearing loss, small numbers of participants are not uncommon in D/HH research. In addition, the number of participants in qualitative research is often restricted to allow for more in-depth description through prolonged engagement.

Third, perspectives from parents and administrators in rural areas were not well represented in these studies. Rural and remote communities often have more difficulty recruiting

and retaining specialists (Kitchenham & Chasteauneuf, 2010), and the overall effect of this on managing the transition to school, as well as providing specialized supports and services to D/HH students is not well documented. Future studies should investigate the experiences of families and professionals in rural and remote areas with regards to the transition of D/HH children.

Fourth, perspectives from the health care system were not included. Children with hearing loss are typically followed by audiologists, and while these specialists were referred to in this dissertation, their role in children's transition to school was not explored. Future research should investigate the connections between the health care system and school system, particularly to examine the connection between children who are lost to follow-up after the hearing loss is identified and families' communication with school about their children's hearing loss.

Finally, these three studies investigated the contexts surrounding the child during the transition to school. The child characteristics that influence readiness for school were not examined. There is a paucity of research on this specific topic. Future research should investigate child characteristics, such as degree of hearing loss, history of amplification, language skills and social-emotional skills on school readiness, and should examine how these factors interact with the contexts immediately surrounding the child (i.e., parents, teachers and peers).

Summary

In summary, the three studies presented in this dissertation represent an inquiry into the transition to school for D/HH children through examination of the contexts and relationships surrounding them. This was one of the first investigations into the transition to school for this population and provides a basis to further explore the transition to school for D/HH children.

The current findings provide evidence supporting the importance of communication and collaboration among families, EI providers, and teachers, which in turn fosters relationships among the individuals involved, and helps to facilitate a smooth transition to school for D/HH children.

References

Ahtola, A., Silinskas, G., Poikonen, P. L., Kontoniemi, M., Niemi, P., & Nurmi, J. E. (2011). Transition to formal schooling: Do transition practices matter for academic performance? *Early Childhood Research Quarterly*, *26*(3), 295-302. doi:10.1016/j.ecresq.2010.12.002

Andersson, B., & Nilsson, S. (1964). Studies in the reliability and validity of the critical incident technique. *Journal of Applied Psychology, 48*, 398–403. doi: 10.1037/h0042025

Antia, S.D., Jones, P.B., Reed, S., Kreimeyer, K.H. (2009). Academic status and progress of deaf and hard of hearing students in general education classrooms. *Journal of Deaf Studies and Deaf Education, 14*(3), 293-311. doi:10.1093/deafed/enp009

Atlas.ti Software (2013). Retrieved May, 2014 from http://www.atlasti.com.

Azizan, N. Smith, R. & Cooper, V. (2011). Critical success factors for knowledge transfer via government websites. *Journal of e-Government Studies and Best Practices* (12). doi: 10.5171/2011.781417

Bailey, D. B., Raspa, M., & Fox, L. C. (2012). What is the future of family outcomes and family-centered services? *Topics in Early Childhood Special Education, 31*(4), 216-223. doi: 10.1177/0271121411427077

Baudonck N, Van Lierde K, D'haeseleer E, Dhooge I. (2011). A comparison of the perceptual evaluation of speech production between bilaterally implanted children, unilaterally implanted children, children using hearing aids, and normal-hearing children. *International Journal of Audiology, 50*(12), 912-919. doi: 10.3109/14992027.2011.605803

B.C. Early Hearing Program (2008). Report on program start-up and implementation, 2005-2008: A sound start for BC Babies. Retrieved from www.phsa.ca/earlyhearing

B.C. Ministry of Children and Family Development (2013). Accessed January 2013 from:

http://www.gov.bc.ca/mcf/

B.C. Ministry of Education (2013). Retrieved January, 2013 from http://www.gov.bc.ca/bced/

B.C. Stats (2012). *2011 Census, Open Data*. Retrieved from

   http://www.bcstats.gov.bc.ca/StatisticsBySubject/Census/OpenData.aspx.

Bedi, R. P., Davis, M. D., & Williams, M. (2005). Critical incidents in the formation of the

   therapeutic alliance from the client's perspective. *Psychotherapy: Theory, Research,*

   Practice, Training, *42*(3), 311-323. doi: 10.1037/0033-3204.42.3.311

Bess, F., Dodd-Murray, J., & Parker, R. (1998). Children with minimal sensorineural hearing

   loss: Prevalence, educational performance, and functional status. *Ear & Hearing*, *19*,

   339-354. doi: 10.1097/00003446-199810000-00001

Blin, F. & Munro, M. (2008). Why hasn't technology disrupted academics' teaching practices?

   Understanding resistance to change through the lens of activity theory. *Computers and*

   Education, 50(), 475-490. doi:10.1016/j.compedu.2007.09.017

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in*

   Psychology, 3(2), 77-101. doi: 10.1191/1478088706qp063oa

Brown, S.E. & Guralnick, M.J. (2012). International Human Rights to Early Intervention for

   Infants and Young Children with Disabilities: Tools for Global Advocacy. *Infants and*

   Young Children, 25(4), 270–285. doi:10.1097/IYC.0b013e318268fa49.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and*

   design. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research

   perspectives. *Developmental Psychology*, *22*(6), 723–742. doi:10.1037/0012-

   1649.22.6.723

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage Publications.

Bronfenbrenner, U., & Morris, P. A. (1998). The Ecology of Developmental Processes. In *Handbook of child psychology* (Vol. 1, pp. 993–1028). John Wiley & Sons.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. *Handbook of child psychology*. I:14. doi: 10.1002/9780470147658.chpsy0114

Butterfield, L. D., Borgen, W. A., Amundson, N. E., & Maglio, A. S. T. (2005). Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative Research*, *5*(4), 475-497. doi: 10.1177/1468794105056924

Butterfield, L. D., Borgen, W. A., Maglio, A. S. T., & Amundson, N. E. (2009). Using the enhanced critical incident technique in counselling psychology research. *Canadian Journal of Counselling*, *43*(4), 265-282. Retrieved from http://cjc-rcc.ucalgary.ca/cjc/index.php/rcc

Calderon, R. (2000). Parental involvement in deaf children's education programs as a predictor of child's language, early reading, and social-emotional development. *Journal of Deaf Studies and Deaf Education, 5*(2), 140–155. doi: 10.1093/deafed/5.2.140

Calderon, R., & Greenberg, M. (2000). Challenges to parents and professional in promoting social-emotional development in deaf children. In P. E. Spencer, C. J. Erting, & M. Marschark (Eds.), The deaf child in the family and at school: Essays in honor of Kathryn P. Meadow-Orlans (pp. 167–185). Hillsdale, NJ: Lawrence Erlbaum.

Canter, L. L. S., Voytecki, K. S., & Rodríguez, D. (2007). Increasing online interaction in rural special education teacher preparation programs. *Rural Special Education Quarterly*,

26(1), 23. Retrieved from https://www.questia.com/library/p61331/rural-special-education-quarterly

Chambers, J., Shkolnik, J., & Perez, M. (2003). Total Expenditures for Students with Disabilities, 1999-2000: Spending Variation by Disability. (Report No. R-5). *Special Education Expenditure Project (SEEP)*. Retrieved from: http://www.csef-air.org/publications/seep/national/final_SEEP_Report_5.pdf

Chung, S., & Walsh, D. J. (2000). Unpacking child-centeredness: A history of meanings. *Journal of Curriculum Studies, 32*(2), 215-234. doi: 10.1080/002202700182727

Conrad, R. (1979). *The deaf school child*. London: Harper & Row.

Convertino, C. M., Marschark, M., Sapere, P., Sarchet, T., & Zupan, M. (2009). Predicting academic success among deaf college students. *Journal of Deaf Studies and Deaf Education, 14*(3), 324–343. doi: 10.1093/deafed/enp005

Cooper, C. E., Crosnoe, R., Suizzo, M., & Pituch, K. A. (2010). Poverty, race, and parental involvement during the transition to elementary school. *Journal of Family Issues, 31*(7), 859-883. doi:10.1177/0192513X09351515

Daley, T. C., Munk, T., & Carlson, E. (2010). A national study of kindergarten transition practices for children with disabilities. *Early Childhood Research Quarterly, 26*(4), 409-419. doi: 10.1016/j.ecresq.2010.11.001

Dearing, E., Kreider, H., & Weiss, H. B. (2008). Increased family involvement in school predicts improved child-teacher relationships and feelings about school for low-income children. *Marriage & Family Review, 43*(3), 226-254. doi: 10.1080/01494920802072462

Delta School District 2006, *Transition to Kindergarten: An Information Guide for Parents of*

    Children with Special Needs. Retrieved December 2012 from

    https://web.deltasd.bc.ca/files/843__TransitionKNJan12.pdf.

Dempsey, I. & Keen, D. (2008). A Review of Processes and Outcomes in Family-Centered

    Services for Children With a Disability. *Topics in Early Childhood Special Education*

    28(1), 42-52. doi: 10.1177/0271121408316699

Dolman, D. (2010). Enrolment trends in deaf education teacher preparation programs, 1973-2009.

    American Annals of the Deaf, 155(3), 353-359. doi: 10.1353/aad.2010.0013

Dunst, C.J.*,* Trivette, C.M., & Deal, A.G. (1994). *Supporting and strengthening families:*

    Methods, strategies and practices. Cambridge, MA*:* Brookline*.*

Dussault, G. & Franceschini, C. (2006). Not enough there, too many here: Understanding

    geographical imbalances in the distribution of the health workforce. *Human Resources*

    for Health, 4(12). doi:10.1186/1478-4491-4-12

Early, D. M., Pianta, R. C., Taylor, L. C., & Cox, M. J. (2001). Transition practices: Findings

    from a national survey of kindergarten teachers. *Early Childhood Education Journal,*

    28(3), 199. doi: 1082-3301/01/0300-0199$19.50/0

Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström,

    R. Miettinen, & R. Punamäki (Eds.), *Perspectives on activity theory* (pp. 19-38). New

    York, NY: Cambridge University Press.

Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical

    reconceptualisation. Journal of Education and Work, 14, 133–156. doi:

    10.1080/13639080020028747

Engeström, Y. (2004). *Cultural-historical activity theory.* Retrieved from

http://www.edu.helsinki.fi/activity/pages/chatanddwr/chat/

Eriks-Brophy, A., Durieux-Smith, A., Olds, J., Fitzpatrick, E., Duquette, C., & Whittingham, J.
(2006). Facilitators and barriers to the inclusion of orally educated children and youth
with hearing loss: Promoting partnerships to support inclusion. *The Volta Review, 106*(1),
53-88. Retrieved from
https://www.agbell.org/uploadedFiles/Connect/Publications/The_Volta_Review/TVR_10
6-1.pdf

Fan, X. & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-
analysis. *Educational Psychology Review 13*(1) p. 1-22. doi:10.1023/A:1009048817385

Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, *51*(4), 327. doi:
10.1037/h0061470

Gallagher, J.J. (1999). Policy and the transition process. In R.C. Pianta & M.J. Cox (Eds.) *The
transition to kindergarten* (pp. 351-361). Baltimore, MA: Paul H. Brookes Publishing.

Geers A.E., Moog, J.S., Biedenstein, J., Brenner C., & Hayes. H. (2009). Spoken language
scores of children using cochlear implants compared to hearing age-mates at school entry.
Journal of Deaf Studies & Deaf Education, 14(3), 371-385. doi:10.1093/deafed/enn046

Gill, S., Winters, D., & Friedman, D. (2006). Educators' views of pre-kindergarten and
kindergarten readiness and transition practices. *Contemporary Issues in Early Childhood,
7*(3), 213-227. Retrieved from https://uk.sagepub.com/en-gb/eur/journal/contemporary-
issues-early-childhood

Greenhouse, P.M. (2013). Activity theory: A framework for understanding multi-agency
working and engaging service users in change. *Educational Psychology in Practice,
29*(4), 404-415. doi: 10.1080/02667363.2013.853650

Grujinac, M.P. (2011). *How Does Internet Facilitated Communication Impact Teacher and Parent Partnerships?* Unpublished Ph.D. Thesis, Loyola University, Chicago.

Gwizdka, J. & Spence, I. (2007). Implicit measures of lostness and success in web navigation. *Interacting with Computers 19*(3), 357-369. doi:10.1016/j.intcom.2007.01.001

Hanson, M. J., Beckman, P. J., Horn, E., Marquart, J., Sandall, S. R., Greig, D., & Brennan, E. (2000). Entering preschool: Family and professional experiences in this transition process. *Journal of Early Intervention, 23*(4), 279-293. doi: 10.1177/10538151000230040701

Hartshorne, R., Friedman, A., Algozzine, B. & Isibor, T. (2006). Secondary Schools Online: Are High School Web Sites Effective? *American Secondary Education 34*(2), 50-66. Retrieved from https://www.questia.com/library/p62110/american-secondary-education

Hartshorne, R. Friedman, A. Algozzine, B. & Kaur, D. (2008). Analysis of elementary school web sites. *Educational Technology & Society, 11*(1) 291-303. Retrieved from http://www.jstor.org/stable/jeductechsoci.11.1.291

Helle, M. (2000). Disturbances and contradictions as tools for understanding work in the newsroom. *Scandinavian Journal of Information Systems, 12*(1) 81-114. Retrieved from http://aisel.aisnet.org/sjis/vol12/iss1/7

Henderson, R.J., Johnson, A., & Moodie, S. (2014). Parent-to-parents support for parents with children who are deaf or hard of hearing: A conceptual framework. *American Journal of Audiology, 23*(4)*,* 437.448. doi: 10.1044/2014_AJA-14-0029

Holt, J.A., Traxler, C.B. & Allen, T.E. (1997). *Interpreting the scores: A user's guide to the 9ᵗʰ edition Standford Achievement Test for educators of deaf and hard-of-hearing students*. In Gallaudet Research Institute Technical Report 97-1. Washington, DC: Gallaudet University.

Issroff, K. & Scanlon, E. (2002). Using technology in higher education: an activity theory

    perspective. *Journal of Computer Assisted Learning,18*(1), 77-83. doi: 10.1046/j.0266-

    4909.2001.00213.x

Jamieson, J. Zaidman-Zait, A. & Poon, B. (2011). Family support needs as perceived by parents

    of preadolescents and adolescents who are deaf or hard of hearing. *Deafness & Education*

    International 13(3), 110-130. doi:10.1179/1557069X11Y.0000000005

Janus, M., Lefort, J., Cameron, R., & Kopechanski, L. (2007). Starting kindergarten: Transition

    issues for children with special needs. *Canadian Journal of Education, 30*(3), 628–648.

    doi: 10.2307/20466656

Janus, M., Kopechanski, L., Cameron, R., & Hughes, D. (2008). In transition: Experiences of

    parents of children with special needs at school entry. *Early Childhood Education*

    Journal, *35*(5), 479-485. doi: 10.1007/s10643-007-0217-0

Kagan, S. & Kauerz, K. (2010). Governance and transition. In S. Kagan & K. Tarrant (Eds.)

    Transitions for young children: Creating connections across early childhood systems (pp.

    243-265). Baltimore, MA: Paul H. Brookes Publishing.

Kamerman, S. (2000). Early childhood intervention policies: An international perspective. In S.J.

    Shonkoff & S. Meisels (Eds.) *Handbook of early childhood intervention* (2nd ed., pp. 613-

    629). New York, NY: Cambridge University Press.

Kincaid, J. Fishburne, R.P. Rogers, R. & Chisso, B. (1975). *Derivation of New Readability*

    Formulas (Automated Readability Index, Fog Count and Flesch Reading Ease Formula)

    for Navy Enlisted Personnel, Millington, TN.

Kitchenham, A., & Chasteauneuf, C. (2010). Teacher supply and demand: Issues in Northern

    Canada. *Canadian Journal of Education, 33*(4)*,* 869–896. Retrieved from http://www.cje-

    rce.ca/index.php/cje-rce

Kohen, D., Oliver, L., & Pierre, F. (2009). Examining the effects of schools and neighbourhoods

    on the outcomes of Kindergarten children in Canada. *International Journal of Speech-*

    Language Pathology, *11*(5), 404-418. doi: 10.1080/17549500903085919Kootenay-

    Columbia School District (2013) *A transition workbook for children with special needs:*

    preschool to kindergarten transition. Retrieved December, 2012 from:

    http://www.sd20.bc.ca/student-

    registration.html?.../Preschool%20to%20Kinder...%E2%80%8E.

Krug, S. (2006). *Don't make me think: A common sense approach to web usability,* 2nd ed.

    Berkeley, CA: New Riders.

Kuuti, K. (1996). Activity theory as a potential framework for human-computer interaction

    research. In B. Nardi (Ed.), *Context and consciousness* (pp. 17-44). Cambridge, MA:

    Massachusetts Institute of Technology.

Lau, S.K. (2013). Are concerns and needs of parents addressed? An analysis of cerebral palsy

    agencies websites in Australia. *2013 46th Hawaii International Conference on System*

    Sciences, 2425-2434. doi: 10Æ11090HICSSÆ2013Æ100

Laverick, D.M. (2008). Starting school: Welcoming young children and families into early

    school experiences. *Early Childhood Education Journal, 35*(4), 321-326. doi:

    10.1007/s10643-007-0201-8

Leont'ev, A.N. (1978). *Activity, Consciousness, and Personality*. Englewood Cliffs, NJ:

    Prentice-Hall.

LoCasale-Crouch, J., Mashburn, A., Downer, J, & Pianta, R. (2008). Pre-kindergarten teachers'

    use of transition practices and children's adjustment to kindergarten. Early Childhood

    Research Quarterly, 23(1), 124-139. doi:10.1016/j.ecresq.2007.06.001

Lovett, D.L. & Haring, K.A. (2003). Family perceptions of transitions in early intervention.

    Education and Training in Developmental Disabilities 38(4) 370-377. Retrieved from

    http://www.jstor.org/stable/23879913

Luckner, J. L., & Ayantoye, C. (2013). Itinerant teachers of students who are deaf or hard of

    hearing: Practices and preparation. *Journal of deaf studies and deaf education*, *18*(3),

    409-423. doi: 10.1093/deafed/ent015

Luckner, J.L. & Muir, S. (2001). Successful students who are deaf in general education settings.

    American Annals of the Deaf, 146(5), 450 – 461. doi: 10.1353/aad.2012.0202

Maio-Taddeo, C. (2007). Can indicators on school websites be used to determine the level of

    ICT integration and ICT leadership in schools? *International Education Journal , 8*(2),

    103-112. Retrieved from http://ehlt.flinders.edu.au/education/iej/main/mainframe.htm

Malsch, A. M., Green, B. L., & Kothari, B. H. (2011). Understanding parents' perspectives on

    the transition to kindergarten: What early childhood settings and schools can do for at-risk

    families. *Best Practices in Mental Health: An International Journal, 7*(1), 47-66.

    Retrieved from https://www.pathwaysrtc.pdx.edu/pdf/pbBPMHunderstandingparent.pdf

Marschark, M. & Hauser, P.C. (2012). *How deaf children learn: What parents and teachers need

    to know.* New York, NY: Oxford University Press.

Marschark, M., Spencer, P. E., Adams, J., & Sapere, P. (2011). Evidence‐based practice in

    educating deaf and hard‐of‐hearing children: Teaching to their cognitive strengths and

    needs. *European Journal of Special Needs Education*, *26*(1), 3-16. doi:

10.1080/08856257.2011.543540

Marschark, M., Sapere, P., Convertino, C., Mayer, C., Wauters, L., & Sarchet, T. (2009). Are

   deaf students' reading challenges really about reading? *American Annals of the Deaf, 154*,

   357–370. doi: 10.1353/aad.0.0111

McIntyre, L. L., Blacher, J., & Baker, B. L. (2006). The transition to school: Adaptation in

   young children with and without intellectual disability. *Journal of Intellectual Disability*

   Research, 50, 349-361. doi: 10.1111/j.1365-2788.2006.00783.x

McIntyre, L. L., Eckert, T. L., Fiese, B. H., DiGennaro, F. D., & Wildenger, L. K. (2007).

   Transition to kindergarten: Family experiences and involvement. *Early Childhood*

   Education Journal, *35*(1), 83-88. doi: 10.1007/s10643-007-0175-6

McIntyre, L., Eckert, T., Fiese, B., DiGennaro, F., Reed, F., & Wildenger, L. (2010). Family

   concerns surrounding kindergarten transition: A comparison of students in special and

   general education. *Early Childhood Education Journal, 38*(4), 259-263.

   doi:10.1007/s10643-010-0416-y

McNutt, K. (2010). Virtual policy networks: Where all roads lead to Rome. *Canadian Journal of*

   Political Science, 43(4): 915-935. doi: 10.1017/S0008423910000752

Meinzen-Derr, J., Wiley, S., Grether, S., & Choo, D. I. (2011). Children with cochlear implants

   and developmental disabilities: a language skills study with developmentally matched

   hearing peers. *Research in Developmental Disabilities*, *32*(2), 757-767. doi:

   10.1016/j.ridd.2010.11.004

Meisels, S.J. & Shonkoff, J.P. (2000). Early childhood intervention: A continuing evolution. In

   J.P. Shonkoff & S.J. Meisels (Eds.) *Handbook of early childhood intervention* (2nd ed.,

   pp. 3-31). New York, NY: Cambridge University Press.

Miller, K. J. (2014). Trends impacting one public school program for students who are deaf or

    hard-of-hearing. *Communication Disorders Quarterly*, *36*(1), 35-43. doi:

    10.1177/1525740114533380

Miller, S., Adsit, K.I., & Miller, T. (2005). Evaluating the importance of common components

    in school-based websites: Frequency of appearance and stakeholders' judged value. *Tech*

    Trends, 49 (6): 34-40. doi:10.1007/BF02763728

Moeller, M.P. (2000). Early intervention and language development in children who are deaf and

    hard of hearing. *Pediatrics, 106*(3):1–9. doi: <u>10.1542/peds.106.3.e43</u>

Moores, D. F. (2009). Residential schools for the deaf and academic placement past, present, and

    future. *American annals of the deaf, 154*(1), 3-4. doi: 10.1353/aad.0.0077

Nardi, B. (1996). Studying context: A comparison of activity theory, situated action models, and

    distributed cognition. In B. Nardi (Ed.), *Context and consciousness* (pp. 69-102).

    Cambridge, MA: Massachusetts Institute of Technology.

Narr, R. F. & Kemmery, M. (2014). The nature of parent support provided by parent mentors for

    families with deaf/hard-of-hearing children: voices from the start. *Journal of Deaf Studies*

    and Deaf Education, 20(1), 67-74. doi:10.1093/deafed/enu029

National Center for Education Statistics (2011). *The Condition of Education*. Retrieved from

    <u>http://nces.ed.gov</u>.

Oermann, M.H. & Wilson, F.L. (2000). Quality of care information for consumers on the

    Internet. *Journal of Nursing Care Quality,* 14 (4): 45-54. doi: 10.1097/00001786-

    200007000-00008

Patel, H. & Feldman, M. (2011). Universal newborn hearing screening. *Paediatrics & Child Health*, *16*(5), 301–305. Retrieved from

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3114997/

Petrakos, H. H. & Lehrer, J. S. (2011). Parents' and teachers' perceptions of transition practices in kindergarten. *Exceptionality Education International, 21*(2), 62-73. Retrieved from http://ir.lib.uwo.ca/eei/vol21/iss2/7

Pianta, R. & Cox, M. (1999) The changing nature of the transition to school: Trends for the next decade. In R. Pianta and M. Cox (Eds.) *The Transition to Kindergarten* (pp. 363-379). Baltimore, MD: Paul H. Brookes.

Pianta, R. C., Cox, M. J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to transition into school: Results of a national survey. *Elementary School Journal, 100*(1), 71-86. doi: 10.1086/461944

Plantin, L. & Daneback, K. (2009). Parenthood, information and support on the Internet: A literature review of research on parents and professionals online. *BMC Family Practice, 10* (34), 1-12. doi: 10.1186/1471-2296-10-34

Podvey, M., Hinojosa, J., & Koenig, K. (2013). Reconsidering insider status for families during the transition from early intervention to preschool special education. *The Journal of Special Education*, *46*, 211–222. doi:10.1177/1088357614532497

Poon, B.T., Jamieson, J.R., Zaidman-Zait, A., Curle, D., Norman, N., & Simmons, N. (2016). The transition from early intervention to school for deaf and hard-of-hearing children. In M. Marschark, V. Lampropoulou & E. Skordilis (Eds.), *Diversity in deaf education* (pp. 49-75)*.* New York, NY: Oxford University Press.

Quesnel School District (2012) *District Support Services Resource Manual*. Retrieved December, 2012 from http://www.sd28.bc.ca/district/departments/studentservices/default.htm.

Quintero, N. & McIntyre, L.L. (2011). Kindergarten Transition Preparation: A Comparison of Teacher and Parent Practices for Children with Autism and Other Developmental Disabilities. *Early Childhood Education Journal 38*(6): 411-420. doi: 10.1007/s10643-010-0427-8

Ray, K. & Smith, M. (2010). The kindergarten child: What teachers and administrators need to know to promote academic success. *Early Childhood Education Journal, 38*, 5-18. doi:10.1007/s10643-010-0383-3

Reed, S., Antia, S.D., & Kreimeyer, K.H. (2008). Academic status of deaf and hard-of-hearing students in public schools: Student, home, and service facilitators and detractors. *Journal of Deaf Studies and Deaf Education 13*(4), 485–502. doi: 10.1093/deafed/enn006

Rimm-Kaufman, S.E. & Pianta, R.C. (1999). Patterns of family school contact in preschool and kindergarten. *School Psychology Review, 28*, 426-438. Retrieved from http://naspjournals.org/loi/spsr?code=naps-site

Rimm-Kaufman, S. E. & Pianta, R. C. (2000). An ecological perspective on children's transition to kindergarten: A theoretical framework to guide empirical research. *Journal of Applied Developmental Psychology, 21*(5), 491–511. doi: 10.1016/S0193-3973(00)00051-4

Roberts, L. (2010). Health information and the Internet: The 5 Cs website evaluation tool. *British Journal of Nursing 19*(5): 322-325. doi: 10.12968/bjon.2010.19.5.47075

Rous, B., Myers, C.T., & Stricklin, S.B. (2007). Strategies for supporting transitions of young children with special needs and their families. *Journal of Early Intervention, 30*(1), 1-18. doi: 10.1177/105381510703000102

Rude, H., Jackson, L., Correa, S., & Luckner, J. (2005). Perceived needs of students with low-

    incidence disabilities in rural areas. *Rural Special Education Quarterly*, *24*(3), 3.

    Retrieved from http://acres-sped.org/journal

Schischka, J., Rawlinson, C., & Hamilton, R. (2012). Factors affecting the transition to school

    for young children with disabilities. *Australasian Journal of Early Childhood*, *37*(4), 15-

    23. Retrieved from: http://www.earlychildhoodaustralia.org.au/our-

    publications/australasian-journal-early-childhood/

Schulting, A. B., Malone, P. S., & Dodge, K. A. (2005). The effect of school-based kindergarten

    transition policies and practices on child academic outcomes. Developmental Psychology,

    41, 860–871. doi:10.1037/0012-1649.41.6.860

Schneider, M. & Buckley, J. (2002). What do parents want from schools? Evidence from the

    Internet. *Educational Evaluation and Policy Analysis, 24*(2): 133-144. Retrieved from

    http://journals.sagepub.com/home/epa

Shaver, D. M., Marschark, M., Newman, L., & Marder, C. (2014). Who is where?

    Characteristics of deaf and hard-of-hearing students in regular and special schools.

    Journal of Deaf Studies and Deaf Education, *19*(2): 203-219. doi: 10.1093/deafed/ent056

Sigman, B.P. & Boston, B.J. (2013). Digital Discernment: An E‑Commerce Web Site

    Evaluation Tool. *Decision Sciences Journal of Innovative Education* 11 (1): 29-46. doi:

    10.1111/j.1540-4609.2012.00367.x

Spencer, P. & Marschark, M. (2009). *Deaf children: Education from research to practice.* New

    York: Oxford University Press.

Spencer, P. & Marschark, M. (2010). *Evidence-based practices in educating deaf and hard of*

    hearing students. New York, NY: Oxford University Press.

Statistics Canada (2003) *Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey*. Catalogue no. 89-617-XIE. Retrieved from http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=89-617-XIE&lang=eng

Thagard, E. K., Hilsmeir, A.S., & Easterbrooks, S.R. (2011). Pragmatic language in deaf and hard of hearing students: Correlation with success in general education. *American Annals of the Deaf, 155*(5), 526-534.

Tubin, D. & Klein, S. (2007). Designing a school website. *Planning and Changing, 38*(3,4), 191-207. Retrieved from http://files.eric.ed.gov/fulltext/EJ785724.pdf

Tudge, J. R. H., Freitas, L. B. L., & Doucett, F. (2009). The transition to school: Reflections from a contextualist perspective. In H. Daniels, H. Lauder, & J. Porter (Eds.) *Educational theories, cultures and learning: A critical perspective*, (pp. 117-133), Abingdon, Oxon: Routledge

Turnbull, A. P., Turbiville, V., & Turnbull, H. R.(2000). Evolution of family-professional partner-ship model models: Collective empowerment as the model for the early 21st century. In J. P.Shonkoff, & S. L. Meisels (Eds.), *The handbook of early intervention* (2nd ed. pp. 630-650). NewYork: Cambridge University Press.

Valeo, A. (2003). Special education tribunals in Ontario. *International Journal of Special Education, 18*(2), 18-30. Retrieved from www.internationaljournalofspecialed.com

Vernon School District (2013) *Special Education Handbook*. URL (consulted on December, 2012): http://www.sd22.bc.ca/SSS/Procedures/PTransition.pdf.

Villeneuve, M., Chatenoud, C., Hutchinson, N. L., Minnes, P., Perry, A., Dionne, C., ... & Weiss, J. (2013). The experience of parents as their children with developmental disabilities

transition from early intervention to kindergarten. *Canadian Journal of Education*, *36*(1), 4-43. doi: 10.1007/s10643-010-0427-8.

Wake, M., Hughes, E. K., Collins, C. M., & Poulakis, Z. (2004). Parent-reported health-related quality of life in children with congenital hearing loss: A population study. *Ambulatory Pediatrics, 4*(5), 411-417. DOI: <u>10.1367/A03-191R.1</u>

Warren, M. (2007). The digital vicious cycle: Links between social disadvantage and digital exclusion in rural areas. *Telecommunications Policy 31*(6): 374-388. doi: <u>10.1016/j.telpol.2007.04.001</u>

Watkin, P., McCann, D., Law, C., Mullee, M., Petrou, S., Stevenson, J., ... & Kennedy, C. (2007). Language ability in children with permanent hearing impairment: The influence of early management and family participation. *Pediatrics*, *120*(3), e694-e701. doi: 10.1542/peds.2006-2116

Welchons, L. W., & McIntyre, L. L. (2015). The transition to kindergarten for children with and without disabilities: An investigation of parent and teacher concerns and involvement. *Topics in Early Childhood Special Education*, *35*(1), 52-62. doi: 10.1177/0271121414523141

Wildenger, L. K. & McIntyre, L. L. (2011). Family concerns and involvement during kindergarten transition. *Journal of Child and Family Studies*, *20*(4), 387-396. doi: 10.1177/0271121414523141

World Wide Web Consortium (2013). Retrieved October, 2013 from http://www.w3.org.

Yoshinaga-Itano, C. (2003). From screening to early identification and intervention: Discovering predictors to successful outcomes for children with significant hearing loss. *Journal of Deaf Studies and Deaf Education*, *8*(1), 11-30. doi: 10.1093/deafed/8.1.11

Appendix A   D/HH Transition to School Studies 2 & 3

**A.1 Participant Letter of Information and Consent Form – Teachers, Early
Interventionists, and Administrators**

Department of Educational and Counselling

Psychology, and Special Education

Faculty of Education

Please join us in this important study!

**Transition Processes for Children Who Are Deaf or Hard of Hearing in B.C.,
their Families, and Teachers: Early Intervention to Kindergarten**

Principal Investigator: Dr. Janet Jamieson, Professor

Dept. of Educational and Counselling

Psychology, and Special Education

Telephone: xxx-xxx-xxxx

Co-Investigators: Dr. Brenda Poon   Dr. Anat Zaidman-Zait

Assistant Professor   Post-Doctoral Fellow

Human Early Learning Partnership

College of Interdisciplinary Studies

Purpose: At the moment, very little is known about the experience of deaf and hard of
hearing children and their families as they experience the transition from early intervention to the
school system. The aim of this study is to explore the experiences of parents and teachers of the
deaf and hard of hearing in this transition process. Drs. Janet Jamieson, Brenda Poon, and Anat

Zaidman-Zait at the University of British Columbia have designed this project with the aim of assisting early intervention and education professionals to optimize services for young deaf and hard of hearing children and their families as they move into the school years.

Study Procedures: We are inviting you to participate in a group interview, together with your teaching colleagues in the program where you work, because we are interested in hearing about your *experiences* of the transition process and your thoughts about facilitators and barriers as deaf and hard-of-hearing children transition into kindergarten. We would greatly appreciate input from each of you!

The interview will take place in the program or school where you work in early June, 2013, at a date and time convenient for you and your colleagues. The interview will last about 60 to 90 minutes. It will be audio- and video-recorded to help us, as accurately as possible, transcribe the group interview. The recordings will not be used beyond this purpose and will not be edited, exhibited, or reproduced. Individuals not participating in the interview will not be recorded.

There are no known or suspected risks associated with participating in this study. However, by participating, you could help young children who are deaf and hard of hearing as they move into kindergarten. The main study findings will be published in academic journal articles**.**

Honorarium: To acknowledge your time and assistance, each participant will receive a Safeway gift card in the amount of $20 (CAN) for taking part in the interview.

Confidentiality: We encourage all participants to refrain from disclosing the contents of the discussion outside of the focus group; however, we cannot control what other participants do with the information discussed. Any information resulting from this research study will be kept strictly confidential. All documents will be identified only by code number and kept in a locked filing cabinet. Participants will not be identified by name in any reports of the completed study. Neither the names of participants nor their home communities will be identified in any published version of the study, so it is highly unlikely that teachers' identities could be determined. Data records and analysis will be kept on a computer hard disk, which will be accessible to only the Principal Investigator and Co-Investigators. If you decline to participate, there will be no jeopardy to you or your employment whatsoever.

Contact: If you have any questions or if you would like further information with respect to this study, you may contact Dr. Janet Jamieson at xxx-xxx-xxxx.

If you have any concern about your treatment or rights as a research participate you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598.

If you would like to join this study: <u>If you would like to participate in the study, please contact Dr. Janet Jamieson by e-mail at [address] within two weeks of receipt of this letter</u>. If you decline to participate, there will be no jeopardy to you or your employment whatsoever.

The research is sponsored by the Child and Youth Mental Health Services of Vancouver Coastal Health.

If you would like to have a translator or interpreter present for your interview, we would be pleased to arrange for one at no expense to you.

<div style="border: 2px solid green; padding: 1em;">

Thank you for your willingness to participate in this study!

Your input is important in helping us learn how we can most effectively help children in British Columbia who are deaf or hard of hearing and their families.

</div>

Participant's Consent:

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time.

My signature indicates that I have received a copy of this consent form for my own records.

My signature below indicates that I consent to participate in this study.

I consent to participate in this study.

_____   _____
Participant's Signature   Print name

Participant's Contact Information:

_____   _____
Telephone   E-mail address

_____
Date

Participant's Consent:

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time.

My signature indicates that I have received a copy of this consent form for my own records.

My signature below indicates that I consent to participate in this study.

I consent to participate in this study.

_____   _____

Participant's Signature   Print name

Participant's Contact Information:

_____   _____

Telephone   E-mail address

_____

Date

A.2 Interview Questions, Study 2

Kindergarten Transition Process for Children with Hearing Loss
Survey Questions for Key Informants

1. Please tell us about your program:

   a. Approximately how many D/HH children does your EI program/outreach program/school district serve? How many of these children were transitioning to kindergarten as of last June?

   b. What services do you offer children (and families)?

   c. Approximately how many of the D/HH children you serve have additional needs or disabilities?

   d. Could you refer us to any printed information or web site with information about your transition policies?

2. Please describe briefly the <u>current procedures or practices</u> followed in your program when a child with a hearing loss (or other disabilities) transitions into kindergarten.

3. What policies and practices currently used in your program/school(s) <u>promote </u>a smooth transition:

   a. for the child:

   b. for the parent:

   c. for the early intervention service providers:

4. What are the current <u>barriers</u> in your program/school in the transition process:

   a. for the child:

   b. for the parent:

      c. for the EI service providers:

5. Do you have any <u>recommendations</u> of policies or practices that would promote a smoother transition experience?

A.3 Follow Up Email Message to Participants, Study 2

Hello, _____,

Thank you for participating in an interview during the 2011-12 school year, as part of the "Transition to Kindergarten for Children who are Deaf or Hard of Hearing" project at UBC. You have helped us gain a better understanding of the transition from early intervention to school for these children in B.C.

An important part of the research process is for us to make sure that we have accurately understood the information you provided. We have developed (and attached) a brief summary of your interview. Would you kindly take a moment to review it, and let us know if it accurately describes your program and your views on transition to kindergarten for children who are deaf or hard of hearing, as they were in winter, 2011/12? If you would like to add, delete, or clarify any of the information you shared, please let us know.

If you would like us to send you the complete transcript of the interview, we are happy to do so.

Thank you again for participating in our research study.

Sincerely,

Deirdre Curle, Doctoral Student
Janet Jamieson, Principal Investigator
Dr. Janet Jamieson, Professor
Dept. of Educational and Counselling Psychology,
and Special Education

B.1 Participant Letter of Information and Consent Form – Parents

Department of Educational and Counselling

Psychology, and Special Education

Faculty of Education

Please join us in this important study!

**Transition Processes for Children Who Are Deaf or Hard of Hearing in B.C.,
their Families, and Teachers: Early Intervention to Kindergarten**

Principal Investigator:	Dr. Janet Jamieson, Professor
	Dept. of Educational and Counselling
	Psychology, and Special Education
	Telephone: xxx-xxx-xxxx

Co-Investigators:	Dr. Brenda Poon	Dr. Anat Zaidman-Zait
	Assistant Professor	Post-Doctoral Fellow
	Human Early Learning Partnership	
	College of Interdisciplinary Studies	

Purpose: At the moment, very little is known about the experience of deaf and hard of hearing children and their families as they experience the transition from early intervention to the school system, especially from parents' perspectives. The aim of the proposed research is to explore parents' experiences of the transition process. Drs. Janet Jamieson, Brenda Poon, and Anat Zaidman-Zait at the University of British Columbia have designed this project with the aim of assisting early intervention and education professionals to optimize services for young deaf and hard of hearing children and their families as they move into the school years.

Study Procedures: We are inviting you to have a series of conversations with us about your perceptions of the transition process as your child moves from an early intervention program into the school system. We would like to interview you at four points during this process: early in the transition year (September of 2012, conducted in person if possible); at two points mid-way during the transition year (December of of 2012 and April of 2013, telephone interview); and late in the first year of kindergarten (June of 2013, conducted in person if possible). The first and last interviews will take place at the location of the your choice (e.g., your home) and will last for about 60 minutes. The other two interviews will be conducted by telephone. The interviews will be tape-recorded; if you are deaf and use sign language, we will film the interviews.

There are no known or suspected risks associated with participating in this study. However, should you have any concerns as a result of participating in the project, the educational program with which your child is affiliated provides parental support when requested.

Honorarium: To acknowledge your time and assistance and to defray the costs of time involvement, each participating family will receive an honorarium in the amount of $35 (CAN) for taking part in the first interview and $25.00 for participating in each of the two telephone interviews, and $35 for taking part in the last interview.

Confidentiality: Any information resulting from this research study will be kept strictly confidential. All documents will be identified only by code number and kept in a locked filing cabinet. Participants will not be identified by name in any reports of the completed study. Neither the names of participants nor their home communities will be identified in any published version of the study, so it is highly unlikely that parents' identities could be determined. Data records and analysis will be kept on a computer hard disk, which will be accessible to only the Principal Investigator and Co-Investigators.

If you decline to participate, there will be no jeopardy to services provided to you, your child, or your family by your child's educational program.

Contact: If you have any questions or if you would like further information with respect to this study, you may contact Dr. Janet Jamieson at xxx-xxx-xxxx.

If you have any concern about your treatment or rights as a research participate you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598.

If you would like to join this study: Please complete and sign the attached consent form and send it to us in the enclosed stamped, addressed envelope. We will then contact you to arrange the first interview.

The research is sponsored by the Child and Youth Mental Health Services of Vancouver Coastal Health.

If you would like to have a translator or interpreter present for your interview, we would be pleased to arrange for one at no expense to you.

**Thank you for your willingness
to participate in this study!**

**Your input is important in helping us learn how we can most
effectively help children in British Columbia
who are deaf or hard of hearing and their families.**

Parent's Consent:

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time.

My signature indicates that I have received a copy of this consent form for my own records.

My signature below indicates that I consent to participate in this study.

I consent to participate in this study.

_____   _____
Parent's Signature   Print name

Parent Contact Information:

_____   _____
Telephone   E-mail address

_____   _____
Signature of a Witness   Date

Parent's Consent:

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time.

My signature indicates that I have received a copy of this consent form for my own records.

My signature below indicates that I consent to participate in this study.

I consent to participate in this study.

_____   _____

Parent's Signature   Print name

Parent Contact Information:

_____   _____

Telephone   E-mail address

_____   _____

Signature of a Witness   Date

B.2 Parent Questionnaire

Transition Processes for Children Who Are Deaf or Hard of Hearing in B.C., their Families, and Teachers: Early Intervention to Kindergarten

Date (MM/DD/YY): Sept 15, 2011

Person completing the survey: ☐ child's mother   ☐ child's father   ☐ other: _____

A. BACKGROUND INFORMATION ABOUT YOUR CHILD AND FAMILY

Your Deaf Child

1. Date of child's birth: (Month/ Day/Year) _06/21/2006 (June 21, 06).

2. Child's gender: ☐ Male   ☐ Female

3. Number of siblings ____None ☐ Number of deaf or hard of hearing siblings _____

5. Birth order of deaf or hard of hearing child_____

6. Are there any other people in your extended family with a hearing loss? _____ (If yes, please state relation to child) _____

7. Does the child have any additional special needs?   ☐ yes☐ no

If yes, please describe.

Only slight vision problems and wears glasses.

_____

_____

_____

8. What spoken language(s) are most commonly used at your child's home?

_____

9. Please describe your community: ☐ urban area   ☐ Suburban   ☐ rural area

Mother:

1. Please check one: ☐ Married   ☐ Common-Law   ☐ Single ☐ Divorced
☐ Widowed

2. What is the mother's highest level of education?

☐ Elementary school

☐ Some high school

☐ High school completed

☐ Some college

☐ College completed

☐ University courses

☐University degree

☐ Post-graduate degree

3. Country of birth: _____ (if other than Canada please answer 3.a)

(a) Number of years in Canada: _____

Father

1. Please check one: ☐ Married   ☐ Common-Law   ☐ Single   ☐ Divorced
☐ Widowed

2. What is the father's highest level of education?

☐ Elementary school

☐ Some high school

☐ High school completed

☐ Some college

☐ College completed

☐ University courses

☐ University degree

☐ Post-graduate degree

3. Country of birth: Canada_____ (if other than Canada please answer 3.a)

(a) Number of years in Canada: _____

Household income (Please check one)

☐ Less than $30,000

☐ Between $30,000 and $39,999

☐ Between $40,000 and $49,999

☐ Between $50,000 and $59,999

☐ Between $60,000 and $79,999

☐ Between $80,000 and $99,999

☐ $100,000 or more

Information about your child's hearing loss:

1. Was your child born with a hearing loss? ☐ Yes ☐ No ☐ Unknown

2. Cause of hearing loss: _____

3. Type of hearing loss: ☐ Sensorineural ☐ Conductive ☐ Mixed

4. Degree of hearing loss: _____

5. How old was your child when her/his hearing loss was first identified?

_____(#) months (if under 36 months) or ___4_(#) years old (if 3 years or older)

6. Is your child currently using amplification? ☐ Yes ☐ Sometimes ☐ Rarely ☐ No

7. What type of amplification does your child use? _Hearing Aids_____

7. How old was your child when (s)he began using amplification?

_____(#) months (if under 36 months) or 4.5 (#) years old (if 3 years or older)

8. If your child has a cochlear implant, when was the surgery performed? (MM/DD/YY):
_____

9. Child's current mode of communication: ☐ pre-linguistic (cries, facial exp, vocalizations, reaching)

☐ combination of sign, speech, gestures and/or AAC ☐ spoken language ☐ sign language

B.3 Parent Interview Questions, Study 3

Transition Processes for Children Who Are Deaf or Hard of Hearing in B.C., their Families, and Teachers: Early Intervention to Kindergarten

PARENT INTERVIEW QUESTIONS

<u>**Pre-transition**</u>

1. Please tell me about the early intervention services your child has received up until now.

2. What preparation have you had for your child's transition to the school system through your early intervention program or service provider?

3. What preparation for the transition have you had from the school system?

4. How do you feel about your child's transition to school?

5. What do you think would be the most helpful for you in this transition process at this time? Was there anything missing from the process that would have made it easier for you?

6. Is there anything else you would like to tell about the transition to school for your child?

<u>**Post-Transition**</u>

1. How has the transition to school been for you? For your child?

2. What has been the most helpful for you and your child in the transition this year?

3. Was there anything that did not go well for you? For your child?

4. Was there anything missing from the process that would have made it easier for you?

5. Is there anything else you would like to tell about the transition to school for your child?

B.4 Teacher of the Deaf and Early Interventionist Interview Questions, Study 3

Transition processes for children who are deaf or hard of hearing in B.C., their families, and teachers: Early intervention to kindergarten

Interview Guide for Early Intervention and Kindergarten Teachers of the Deaf and Hard of Hearing

A) Roles, relationships, and guidelines that support the transition

1. How would you describe your role(s) in the transition process? What are your key priorities in supporting the transition?

2. How important would you say the transition process is? (*Possible probes*: For you? For the child? For the parents?). Why is the transition important to you?

3. Who else is involved in the transition process? Teachers? Parents? Early Interventionists? (*Possible probes* in relation to timing in the process: *Prior* to, *during*, and *immediately following* the transition).

   a. How do you work together with the classroom teacher?

   b. How do you work with parents?

   c. How do you work with early interventionists?

4. Think about your current practices in transitioning children with hearing loss into kindergarten. How did you develop your current approach? How would a *new* teacher of the deaf and hard of hearing in your school district or program know what to do to support a child's transition into kindergarten?

   a. What types of resources, materials, and/or supports are there for you?

   b. What district or program policies and procedures are currently in place to support the transition to kindergarten for children with hearing loss? Or children with special needs more generally?

B) Participants' experiences of the transition

1. Think back about your transitions to date. How would you describe your experiences thus far?

2. What are some key elements that help to make a transition a success? Think of a transition that went particularly well…. What did that look like?

3. What are the challenges in the transition process? Think of a situation when a transition felt particularly difficult…. What did that look like?

4. Think back about the transitions that you've been involved in. What would you do differently, if anything?

5. If you were to view the transition from parents' perspectives, what types of concerns would you say that most parents have in relation to the transition process?

6. Is there anything else that you would like to add in relationship to the transition process?