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## Implementing a Dialogic Reading Intervention: The Experiences of Teachers of Deaf and Hard of Hearing Students

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Implementing a Dialogic Reading Intervention:  
The Experiences of Teachers of Deaf and Hard of Hearing Students

by

Jacquelyn Marion Urbani

A dissertation submitted in partial satisfaction of the  
requirements for the degree of

Joint Doctor of Philosophy  
with San Francisco State University

in

Special Education

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor P. David Pearson, Co-chair  
Professor Philip Prinz, Co-chair  
Professor Susanne Gahl

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## Abstract

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P. David Pearson and Philip Prinz,, Co-Chairs

Deaf and hard of hearing children (hereafter DHH) frequently have delayed language and little experience with books because they do not share a common language with their hearing parents. However, there is little research concerning language and literacy development in the DHH classroom and equally little discussion of teacher responsibilities to address these issues. This study investigated the implementation of dialogic reading, which aims to engage students in active discussion and retellings of stories, using American Sign Language, called *story signings*. Because dialogic reading research with language delayed, hearing preschool students resulted in significant improvement of language skill (Whitehurst, Arnold, et al., 1994; Whitehurst, et al., 1999), it was a logical candidate for implementation with DHH students.

A hybrid of case study and design-based research methods was used to investigate the implementation of dialogic reading with four elementary teachers of DHH students. This study was undertaken collaboratively with teachers in order to overcome obstacles that might interfere with implementation and sustainability, to make adjustments to alleviate such problems as they arose during implementation, and to identify necessary adaptations for their student population. The teachers taught grades one through five. Two taught in a school for DHH children, and the other two taught in special day classes for DHH students located within elementary schools. Data sources included videotapes of story signings and reading instruction and audiotapes of meetings with teachers.

Findings indicate that the teachers were hindered first by a lack of knowledge and then subsequently by the difficulties of implementation. These difficulties included those identified in previous research: teacher time for small groups, a difference in philosophy of teaching and learning, and teacher effort (Lonigan & Whitehurst, 1998). Specifically, teachers were not regularly engaged in reading to students, admitted they did not know how to address language delays within the classroom, and felt additional adaptations for their students competed with their professional commitment to other curricular areas. Future research needs to investigate implementation issues for the purposes of sustainability, and teacher education programs—for pre-and in-service teachers—need to prepare teachers for the multifaceted, complex nature of instruction.

This work is dedicated—with much love—to the best teachers I ever had,  
my parents, Guy and Katie Urbani;

And to my husband, David Malmud,  
who has been an amazing source of strength and support for me.  
Ti voglio bene. *Sempre.*

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## CHAPTER 1: INTRODUCTION

Reading is deemed critical for success, specifically with academics, and more generally within society (Chhabra & McCardle, 2004). Reading is a language activity (Snow, Griffin, & Burns, 2005), and relies upon knowledge and skill in the various components of language (phonology, semantics, pragmatics, and grammar); deficiencies in any of these areas can interfere with an individual's ability to read (Catts & Kamhi, 2005). Therefore, the sufficient development of a primary language is a prerequisite for development of reading and writing skills.

In the field of Deaf Education, the delayed language of students is unfortunately expected; however, there are surprisingly few interventions to target this in the classroom and little discussion in the literature as to how this impacts future literacy abilities. As a former teacher of deaf and hard of hearing students (hereafter DHH), I had serious concerns about their language and literacy development. Linguistic input is one of the most vital forms of stimulation during the early years, culminating in the *hearing* child's mastery of the fundamental aspects of grammar by age three or four (Bates, Thal, & Janowsky, 1992). However, the "aural/oral mode of developing an initial language system" is not an accessible avenue for most *deaf* children (Quigley & Paul, 1984, pp. 6-7, emphasis added). They cannot rely on audition to provide them with linguistic experiences that are critical for language, literacy, and cognitive development; instead they require visual access to language for those experiences. However, nine out of ten deaf children are born to hearing families (Brown, 1986; Gallaudet Research Institute, 2005), who must then learn a new language to communicate with the child, and unfortunately do not often move past a basic sign vocabulary (Erting, 2003). Even if families do attempt to learn American Sign Language (ASL), they are not sophisticated models of the language for their child (Vgotsky, 1978). Therefore, the most significant problem facing DHH children is not the inability to hear, it is the inability to access language and "an abundance of isolation," even from their own families (Johnson, 2004, p. 76).

Delays in language development have negative repercussions on literacy development (Hart & Risley, 1995; Snow, Burns, & Griffin, 1998). In learning to read, DHH students face many challenges, including: not having a strong first language base upon entering school, a very limited vocabulary, little experience with and motivation for literacy materials, and minimal background knowledge. All of these require a significant amount of classroom time prior to any lesson (Johnson, 2004) and impact tremendously on the student's cognitive and academic development (National Association of State Directors of Special Education, Inc., 2006). Indeed, it is known that the linguistic abilities of DHH children may be limited due to lack of exposure and experience, and their reading achievement has historically been quite dismal: the average deaf student graduates high school with a fourth grade reading level, which qualifies as functionally illiterate (Johnson, 2004; Johnson, Liddell, & Erting, 1989; & Lane, 1999). However, there has been a paucity of research to target language and literacy development in the classroom and little discussion of teacher responsibilities and educational practices to address these important issues.

After twelve years of teaching, I began my doctoral studies intent on investigating classroom interventions that could target the unique needs of DHH students in regards to

language and literacy. Interventions targeting both of these areas simultaneously, through the activity of reading to children—often referred to as *shared reading* or *read alouds*—have resulted in significant improvement of language skill (Whitehurst, Arnold, et al., 1994; Whitehurst, et al., 1999). Shared reading is described by the research literature as a parent reading out loud to a child or a teacher reading to a group of students with “the active involvement and engagement of both the child and adult in a shared interaction focusing on a book’s words, pictures, and story” (Ezell & Justice, 2005, p.2. See also Reutzel, 2001; Sipe, 2000; Wood & Salvetti, 2001). However, this practice with deaf and hard of hearing students involves presentation of the story through a more accessible, visual modality, American Sign Language (ASL), and will be referred to as *story signing* throughout this text; the same benefits and goals of this activity apply from research with hearing students to its use with DHH students.

When I was teaching, I began to use story signings as a way to further students’ language development, through active engagement in discussion, and to provide them opportunities to experience good literature. I created additional literacy activities around these stories, while also teaching from the provided curriculum for reading. The story signings were an enjoyable activity that further developed their language and interest with reading and writing.

During my second year of graduate school, I was the recipient of a Spencer Research Fellowship and used the experience to explore of the topic of reading to students. I developed a survey on shared reading practices, which was distributed to a small sample of educators (Urbani, 2008). Respondents included teachers in general education, special education, and deaf education. The survey was also supplemented by several Think-Alouds. Specifically, I explored the reasons why teachers read to their students, how often this practice was employed, how it was integrated with the general curriculum, and challenges to its implementation. One important finding of this work was that although reading to students is considered best practices, most of the teachers were not incorporating it as a basic element of their practice. In particular, special education teachers were not using it as much as teachers within typical elementary education. In addition, teachers in deaf education did not seem aware of its benefits for language development.

As my doctoral program continued, I further investigated research with story signings/read alouds, which led me to dialogic reading, a recommended practice on the What Works Clearinghouse, the US Department of Education and Institute of Education Sciences website, which reviews and recommends research in education (United States Department of Education, 2007). Dialogic reading aims to make the students more active participants in the reading process by having adult readers engage students in discussion and retellings of the stories (Whitehurst, et al., 1988; Whitehurst, Arnold, et al., 1994; Whitehurst, et al., 1999). I chose to examine dialogic reading for specific reasons. First, Deaf children do not share a language with their parents: the children cannot access the parents’ spoken language and the parents need to learn a new language, American Sign Language (ASL), to communicate with their child. This results in significant language delays. Second, an unfortunate consequence of this language mismatch is little shared experiences with books. Dialogic reading, therefore, appeared to be a way to facilitate linguistic development while providing DHH children the benefits of engaging with books.

I was also interested in studying the implementation of dialogic reading by teachers. Other research on reading to students provided a description of styles of reading (performance, interactional, just-reading; Brabham & Lynch-Brown, 2002) but dialogic reading offered specific, quantifiable questions for teachers to use to engage students, which I predicted would be more clear and productive for teacher training. In addition, while research results indicate significant growth in child expressive language with this intervention, previous research acknowledged that teachers reverted back to their original teaching patterns when the research was completed (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994). The goal of educational research in general, and this study in particular, is that teachers will maintain the practice after the study is completed because of the benefits evidenced by students. Specifically I was interested in how to adapt dialogic reading for DHH students at the elementary level and how to assist teachers with implementation.

The authors of the previous studies (which were conducted in preschools with students of low socioeconomic status) identified three impediments to sustainability, which were teacher time for small groups, a difference in philosophy, and the effort required by the teacher (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994). I felt that, in applying this intervention to deaf education, the first two impediments would not be an issue. In discussing teacher time, the authors detailed the demands of using small groups for dialogic reading activities, in order to provide students more opportunities to participate. Within the large class size of typical preschools, this required additional staff and volunteers to oversee the activities and behavior of the other students. However, often this was not the case, as staff were managing needs of individual students, setting up or breaking down activities, or readying materials. As DHH classrooms are typically very small in comparison (classrooms in this study ranged from five to nine students) and most likely have at least one additional staff member, this did not seem it would be the obstacle it was in hearing classrooms.

The second impediment researchers identified was philosophy. They felt preschool teachers wanted to foster developmental learning and not use explicit teaching and use of questioning during stories. Again, at first glance, this did not seem it would be an obstacle, because I was investigating the use of dialogic reading practices at the elementary level, where both reading stories to students and reading instruction are typical practices.

The third identified impediment to sustainability was the effort required by teachers during dialogic reading sessions. Researchers acknowledged the “hard work” of facilitating and maintaining conversations with students while encouraging their participation and appropriate behavior (Whitehurst, Arnold, et al., 1994, p. 687). I anticipated that this would also be an issue for my teachers, especially given the language delays, knowledge gaps, and visual communication needs of DHH students and the role of teachers to address these issues.

### **Purpose of the Study**

This current study was undertaken to investigate a specific shared reading intervention, dialogic reading, for the purposes of addressing the unique needs of deaf and hard of hearing students in regards to language and literacy. I had two initial goals for this study. The first involved sustainability issues with teachers. I planned to

collaborate with them to investigate the obstacles to implementation and brainstorm ways to alleviate them. In addition, I hoped to identify adaptations necessary for students who were deaf and hard of hearing. Second, I wanted to measure the effects of this teacher practice on the language and literacy learning of their students. This study was never intended as any sort of controlled experiment—but will hopefully advance to that in the future—because I first needed to know how the features of the practice connected or failed to connect with this population of students. However, I did intend to examine any changes in teachers practice to any observed change in student outcomes through a simple pre- and post-test design.

Although I had originally begun the research to investigate these two parallel trajectories, teacher integration of new practices and student learning, the teachers experienced a great deal of difficulty with implementing the intervention. All three of the previously identified impediments emerged for the participating teachers. On top of those issues, the additional adaptations for DHH students added further complexity, which interfered with the implementation. Therefore, the teachers did not implement dialogic reading with the consistency or fidelity I had expected. While I had conducted student assessments for the purposes of pre- and post-testing to have a measure of teachers' efforts on student performance, it was not appropriate to use the student data in this way. My study effectively morphed into a close examination of the implementation experiences of teachers. The research questions focusing on the work with teachers were:

1. What specific knowledge and skills do teachers need to implement dialogic reading practices in order to address the language and literacy needs of deaf and hard of hearing students?
2. What are the obstacles/challenges to implementing dialogic reading? What aspects impede implementation, fidelity, and sustainability? What factors are consistent with sustained practice?
3. How does dialogic reading need to be adapted to meet the particular needs of deaf and hard of hearing students?
  - a. In what ways do these adaptations surface across grades, settings, levels of hearing loss, and communication needs?
  - b. What are critical features of supplemental direct instruction connecting ASL signs to English print?

The goal of dialogic reading is to improve children's expressive vocabulary by engaging them actively in the read aloud/story signing (Whitehurst, Arnold et al., 1994). Dialogic reading was chosen as the intervention because it merely changes the style of interaction during reading to students, an activity that is considered best practices and which I assumed would be a regular part of the classroom schedule; the purpose of this study was to make that time more productive. I felt this intervention could easily be added to the existing classroom practices and would not place an additional burden on teachers. A new addition to dialogic reading for this study was one to two supplemental literacy lessons per week (if they were not integrated into the story signing times) of explicit instruction with the signs of American Sign Language and the English print of the story, in order to address the specific bilingual needs of DHH students.

### **Theoretical Framework**

The premise underlying this study was that teachers' work should include best practices and should be responsive to the needs of their students. As such, I will first describe the theoretical framework focused on the needs of students, and then describe the theoretical framework with the teacher participants.

#### **Theoretical Framework: Students' Needs**

The theoretical perspective being taken with students is that language development is prerequisite and critical for emergent literacy development (Block, 2003; Catts & Kamhi, 2005; and Snow, Griffin, & Burns, 2005). For hearing students, emergent literacy is defined as the simultaneous acquisition of reading, writing, and oral language along a developmental continuum (Clay, 1966; Teale & Sulzby, 1986; Whitehurst & Lonigan, 1998). For DHH students, the definition of emergent literacy is modified to include signed language (i.e., the visual-gestural modality) as the avenue for expressive communication. Emergent literacy develops from an early age through social interactions and contexts, providing the foundation for conventional reading.

Whitehurst and Lonigan (1998) developed a structural model of emergent literacy that emphasizes the interdependent relationship between language and literacy. There are two domains of emergent literacy in their proposed model, the oral language domain and the code-related domain. The oral language domain includes the child's semantic, syntactic, and narrative abilities. The code-related domain includes conventions of print, phonological awareness, grapheme-phoneme correspondence, and knowledge of letters. Both of these domains make unique and important contributions to reading, and work simultaneously to achieve comprehension. The authors use the example of *a lead balloon* and *lead me there* to indicate how the phonological decoding of the text, a code-related skill, is dependent upon understanding contextual meaning, which is supported by the oral language domain (p. 855). This model is representative of the unique needs of DHH students, who "are disadvantaged as potential readers on both counts" (Goldin-Meadow & Mayberry, 2001, p. 222). In the oral/expressive language domain, they lack sophisticated models of sign language; their hearing parents and families are not able to communicate through sign language in an advanced manner, resulting in a detrimental lack of linguistic experiences. In the code-related domain, the students lack experience with print materials and have difficulty with or an inability to access audition for phonology. Students cannot rely on phonology to connect words from the story to the print on the page, and require explicit instruction to make the connections between the signs and words they see. This model offers a theoretical explanation of the relationship between language and literacy for hearing children that can be appropriated to explain the relationship between those domains for DHH students.

Whitehurst and Lonigan found that these two domains have more influence at different times during a child's development. In the preschool years, oral language is predictive of a student's later reading achievement, but as a child begins formal schooling, they rely more upon code-related skills for beginning reading and writing. In this structural model, it appeared that the influence of oral language skills dropped off during the early elementary years. However, when the model was further investigated by Storch and Whitehurst (2002), who followed students through fourth grade, they found that oral language skills again became critical for reading comprehension in the later



grades; its influence during the first and second grade was masked by other variables during that time.

The contribution of these models is that they show the importance of each domain along the developmental continuum and upon future reading achievement. Various researchers clarify that educators should work to address both domains, not focusing on only one to the exclusion of the other. In fact, Storch and Whitehurst claim there is a “danger” in emphasizing only code-related skills (2002, p. 943), and other researchers agree that both domains must be addressed in schools (Catts, Fey, Zhang, & Tomblin, 1999). Unfortunately, research on classroom literacy practices would suggest that teachers are unaware of the specific benefits to the oral language domain gained with reading to students (Brabham & Lynch-Brown, 2002; Lickteig & Russell, 1993), and they may also feel that those skills are best developed prior to school entry.

### **Theoretical Framework: Teachers’ Work**

My study was conducted with the theoretical perspective that linguistic interactions between teachers and students can positively affect the language development of the students. For deaf and hard of hearing students, who are unfortunately very often delayed in linguistic development, the role and characteristics of teacher input on both language and literacy development are important to identify. Whitehurst and colleagues, in previous research with dialogic reading, have documented linguistic development due to this intervention. Additionally, Huttenlocher and colleagues investigated the role of linguistic input by parents and teachers on syntactic usage and growth in children (Huttenlocher, Vasilyeva, Cymerman, & Levine, 2002). Their results found that variations in adult input are a source of variation in student growth. These findings suggest that greater input results in a higher level of skill, which is consistent with the seminal research conducted by Hart & Risley on parental input to children of different socioeconomic levels (1992; 1995). Children require considerable exposure to complex linguistic forms to achieve proficiency in producing and comprehending those same features. This study aimed to provide further support for the important influence of adult input on student linguistic development.

The theoretical perspective being taken with teacher participants is that their knowledge continues to develop after formal education, and should be actively engaged and sustained (Pearson, 2001), specifically through reflective practice and collaboration with peers (Callahan, Benson-Griffo, & Pearson, 2009). Models of teacher knowledge include Berliner’s (1988) and that of Snow and colleagues (2005), and represent stages of development over the trajectory of a teacher’s career. These stages include changes to the kinds of knowledge teachers have and use, defined as declarative, situated, stable, expert, and reflective (Snow, Griffin, & Burns, 2005).

In addition, the conceptual model of Shulman & Shulman (2004) examines principles of reflection, vision, motivation, understanding, and practice (p. 260) for knowledge growth of individuals and within teacher communities; they add the important element of collaboration to represent the social nature of learning. This theoretical perspective will be used in examining teacher development around implementation of dialogic reading in ASL. In particular, this model will be used to identify and describe the influence of reflective practice and examination of pedagogy with students.

Demands are high on teachers of typical students, but they are perhaps greater for those of atypical learners. However, the information and research on how best to prepare teachers of special education is almost nonexistent (Brownell, Ross, Colon, & McCallum, 2005). The recommendation is to ground research and practice from the broader fields of reading research and teacher education to the education of students with special learning needs (Gersten, Baker, Haager, & Graves, 2005). The study aimed to do just that, by relying on theories and research from these broader fields to identify knowledge and skill development of teachers necessary to address the particular needs of DHH students.

### **Definition of Terms**

Because the topic of this dissertation is out of the mainstream, I am providing definitions of key terms here to assist the reader.

#### **Deaf**

“The capitalized form ‘Deaf’ is used to refer to those deaf people who share a language (ASL in this case) and cultural values that are distinct from the hearing society, and the lowercase form ‘deaf’ is used to refer to the audiological condition of deafness” (Parasnis, 1996, p. 3). Because of this linguistic and cultural orientation (Lane, 1992), as opposed to the view of deafness as a disability, the “people-first language” recommended by the American Psychological Association (2010) does not apply. (The “people first” language is intended to respect and honor people first before their disability, such as *a child with autism* instead of *an autistic child*).

#### **Hard of Hearing**

Students are generally considered hard of hearing if they have mild to moderate hearing losses and are able to use some residual hearing for the purposes of speaking and listening. Easterbrooks and Baker (2002) describe hard of hearing students as “the least well-served subgroup” within deaf education, for a variety of reasons (p. 65). They explain that others misjudge how much information hard of hearing students receive through their hearing, which results in miscommunication and misunderstanding (2002).

#### **American Sign Language (ASL)**

Sign language is not universal. William Stokoe conducted the first linguistic research on American Sign Language and identified it as a true language, not just a gestural representation of English (1960/2005). Features of signs within ASL include the following parameters: handshape, movement, location (on or around the body), palm orientation, and non-manual signals (facial expressions) (Tennant & Brown, 1998). ASL is considered the language of the American Deaf community. Members of the Deaf community identify themselves as a cultural and linguistic minority as opposed to disabled persons.

#### **Signing Exact English (SEE)**

Signing Exact English is one of several Manually Coded English (MCE) systems, which were developed with the theory that presenting English through signs would make it easier for students to speak, read, and write it. However, there are several issues with SEE that make it less than ideal as a communication system with DHH students. The

main argument against SEE is that it is just a code for a language—a language that is inaccessible to DHH students—whereas ASL is a language in its own right. (While the theory behind SEE sounds strong, in fact research indicates that deaf students’ abilities with ASL are strongly related to their skills with English literacy. See Hoffmeister, 2000, Padden & Ramsey, 2000, and Strong & Prinz, 1997.)

The first concern with SEE is that it is based on the sounds of the English language, which hard of hearing students have difficulty with and deaf students cannot access. Lane (1992) describes this focus on an inaccessible language as an ethnocentric viewpoint that leads to the invention of signs “for English function words and suffixes, . . . [where] the grammatical order of the signs is scrambled in an attempt to duplicate English word order. No deaf child has ever learned such a system as a native language, nor indeed could he, for it violates the principles of the manual-visual channel of communication” (p. 47). Signed language in general, and ASL in particular, is able present “multiple streams of information at the same time” (Lane, Hoffmeister, & Bahan, 1996, p. 273). In contrast, SEE follows the linear pathway of spoken English, adding invented conventions such as *-ing* (as a tense marker) and *-ly* (for adverbs) (Gustason, Pfeitzing, & Zawolkow, 1992) that slow the pace of communication to an “excruciating crawl” (Lane, Hoffmeister, & Bahan, 1996, p. 273). Another concern is that the focus on representing English grammatical structures undermines the social and cognitive purposes that facilitate natural language development (Ramsey, 1997).

In addition, ASL can represent the meanings of the words conceptually because of the visual/gestural nature of the language. Contrived signing systems such as SEE are not a natural language, and result in signed utterances that do not convey the conceptual intent of the message. Lane, Hoffmeister, and Bahan offer the following example: “only one sign would be used for *right* (direction), *right* (correct), and *right* (privilege)” (1996, p. 270). Particularly problematic is when students read the English words and are unaware of their various meanings because they associate only one SEE sign and its meaning with that word.

### **Simultaneously Speaking and Signing**

“A communication strategy in which speech and signs are produced at the same time” (Lane, Hoffmeister, & Bahan, 1996, p. 270). Because the teachers are speaking English, the signs follow English word order and not the grammar of American Sign Language. Research on this strategy noted the difficulty involved, and found that hearing teachers were more focused on producing a correct spoken message, while they were often unaware of mistakes or inaccuracies within the accompanying signed message (Johnson, Liddell, & Erting, 1989). An example from their data that highlights this problem was when a teacher voiced, “You were a good Easter Bunny,” while signing “GOOD EASTER DEVIL” (p. 6).

### **Read alouds/Story signings**

Read alouds may be conducted at the home between parents and children or in classrooms with teachers and students. This activity involves the reading of the text to the child and discussion of the story. Reading to children is considered one of the best activities for developing the language, knowledge, and vocabulary essential for future success in reading (Adams, 1990; Dickinson, McCabe, & Anastasopoulos, 2003;

National Academy of Education, 1985). Many terms have been used to describe this activity: *shared reading*, *interactive reading*, and *adult-child storybook reading* (Ezell & Justice, 2005). Reading to children is considered so valuable because of the simultaneous presentation of oral and written language as well as its interactive nature (Ezell & Justice, 2005; National Academy of Education, 1985; and Snow, Griffin, & Burns, 2005). Reading to deaf children requires discussion and presentation of the text through a visual, not an auditory, channel. American Sign Language is used as the language for discussion and the reading, for the purposes described above, and will be referred to throughout this text as *story signing*.

### **Dialogic reading**

Dialogic reading is a particular kind of read aloud, developed by Whitehurst and colleagues (Whitehurst et al., 1988; Whitehurst, Epstein, et al., 1994). The purpose is to actively engage children in discussion around books in order to further develop their linguistic abilities. Parents and teachers are encouraged to use specific kinds of prompts with children, based on the acronyms *PEER* and *CROWD*. *PEER* stands for Prompting of the child, Evaluating and Expanding on their responses, and asking children to Repeat correct responses. Prompts are described using the acronym *CROWD*: Completion questions (asking students to complete a phrase); Recall (asking children to remember details); Open-ended questions (allowing children to discuss story ideas and use new words); Wh-word questions: (what, who, where, when, why), and Distancing (trying to connect the book to the child's life).

## CHAPTER 2: REVIEW OF THE LITERATURE

There is an abundance of research for reading to hearing children (often referred to as read alouds or shared reading; National Academy of Education, 1985; Neuman, 1999; Sipe, 2000; Snow, Griffin, & Burns, 2005; Whitehurst, Arnold, et al., 1994) and support for this practice with deaf children and their parents (Schleper, 1996). However, there is little research investigating this practice with deaf and hard of hearing (DHH) students in the classroom (Fung, Chow, & McBride-Chang, 2005), despite the fact that it directly addresses their language and literacy issues. Also, although there has been acknowledgement of the difference in DHH children's linguistic abilities due to lack of exposure and experience, there has been little discussion of how this relates to teacher responsibilities and classroom practices.

The benefits of reading to DHH learners through sign language (referred to as *story signings*) can best be understood within the context of their unique linguistic and literacy issues. Therefore, this chapter will begin with a general discussion of the language and literacy issues of DHH children, with a specific focus on the reciprocal relationship between language and emergent literacy development. Research on reading to children will then be examined from the mainstream fields of education and reading, with implications of those findings then considered along with research conducted with DHH learners.

The final section of the literature review will examine knowledge and skill predicted to be critical for teachers in implementing dialogic reading, including knowledge for teaching reading, knowledge for bilingual instruction, and skill in American Sign Language. In particular, I will review research about pre-service teacher education around these topics.

### **Language and Literacy Issues of DHH Students**

#### **Language Concerns**

From the work of Piaget (1954), Vgotsky (1978), and Bandura (1986), we know environmental stimulation and experiences are crucial to a child's development. Linguistic input is one of the most vital forms of stimulation during the early years, culminating in the hearing child's mastery of the fundamental aspects of their native language by age three or four; lexical, grammatical, and phonological development are fairly stable, and linguistic development continues with an increase in fluency and building of vocabulary (Bates, Thal, & Janowsky, 1992). This acquisition of and skill with language occurs through daily interactions with language models, despite marked differences in the linguistic and communicative experiences of children due to family circumstances and language styles (Hart & Risley, 1995; Heath, 1983). However, the "aural/oral mode of developing an initial language system" presents difficulties for hard of hearing children and is not an accessible avenue for most deaf children (Quigley & Paul, 1984, pp. 6-7). Nine out of ten children become deaf before they learn English at home (Brown, 1986; Gallaudet Research Institute, 2005). They cannot rely on audition to provide them with the linguistic experiences that aid in language, literacy, and cognitive development. Taken for granted by most, the amount and variety of information received through hearing is immense. For deaf children, who are unable to access this auditory

information, the result is very limited and delayed first language development, both expressively and receptively.

Upon identification of the child's hearing loss, parents must then determine the preferred means to communicate with their child (speech or sign<sup>1</sup>). If manual communication is chosen, the child and family then begin the process of learning signs, either a manual code for English, such as Signed Exact English, or American Sign Language (ASL). In essence, the parents must learn a new language to communicate with their own child; their child does not speak their language and cannot access the language they speak. Whatever the sign language attempts of the parents may be, the fact remains that they are not sophisticated language models critical for development (Vgotsky, 1978). Unfortunately, parents often do not learn much more than the signs necessary for basic communication.<sup>2</sup> Lederberg & Everhart (2000) examined mothers' use of sign language, with disappointing results: mothers incorporated signs in less than 30% of their communication (Lederberg & Everhart, 2000, p. 307). This resulted in their three year old deaf children using only *single* word utterance/signs most of the time (emphasis added, p. 318). This is in striking contrast to the research on hearing children, who produced an average of 10 words by one year and 534 words at 30 months (Bates, Thal, & Janowsky 1992, p. 14). The unfortunate consequence for the Deaf child is severely limited and delayed linguistic development.

There are serious repercussions for early linguistic deprivation and lack of language models (Vgotsky, 1978). Deaf children may not experience the complex structures of conversation (Wolfe, Want, & Siegal, 2002) and may remain linguistically dysfunctional both expressively and receptively (Mayberry, 1994).

Children who are deaf must have opportunities for meaningful and natural language acquisition through the visual channel and/or the auditory channel as early as possible. Children who are deaf and are not exposed to early language input are likely to have severe delays that will impact their future learning and will require extensive intervention to facilitate language development (National Association of State Directors of Special Education, Inc., 2006 p. 13).

The vital component for DHH children, therefore, is *access* to language as soon as possible, as language delays have serious implications for future literacy development.

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<sup>1</sup> Within the field of deaf education, there has historically been much debate on the best and most appropriate method for student communication (speech, speech and signs, manual forms of English, or ASL). This has been exacerbated by the medical view of deafness as a disability and the pressure to keep the students as "normal" as possible through the use of speech and assisted listening devices instead of ASL. However, there is clear evidence for the use of ASL as opposed to manual codes for English (See Johnson, Liddell, & Erting, 1989; Lane, 1999; Strong & Prinz, 1997). The purpose of this review is not to prove the worth of teaching using ASL, but to examine the appropriateness and effectiveness of language and literacy development by reading books to students using ASL.

<sup>2</sup> Parents may not be able to learn ASL for a variety of reasons, including financial stability, work responsibilities, and family resources. Parents who learn minimal sign language may not have a lack of interest in communicating with their child. Instead, the additional demands placed upon a family with a DHH child should be acknowledged and addressed by the educational team. In my experience, parents who had a personal interest in communicating with their child were often limited and overwhelmed by societal constraints. However, the negative impact of this limited language to the deaf child does need to be addressed educationally, socially, and politically.

### **Implications of Language Development for Emergent Literacy**

Numerous theorists and researchers have documented the influence and necessity of language development for emergent literacy development (Block, 2003; Catts & Kamhi, 2005; and Snow, Griffin, & Burns, 2005). Reading is a language activity, in fact, “we read language” (Snow, Griffin, & Burns, 2005, p. 9). Reading relies upon knowledge and skill in the various components of language (phonology, semantics, pragmatics, and grammar); deficiencies in any of these areas can interfere with an individual’s ability to read (Catts & Kamhi, 2005). Therefore, the sufficient development of a primary language is a prerequisite for development of reading and writing skills. Again, the implications of this for DHH students are great: “. . .it is likely that much of the difficulty deaf children have with reading text is a result of experiential and linguistic deficits incurred in infancy and early childhood” (Quigley & Paul, 1984, p. 102).

For students who arrive to school with limited and/or delayed language experiences, interventions could and should occur to compensate for and address this linguistic difference. Of particular concern with the impoverished language of DHH students is how this impacts their literacy development: they must depend on a limited first language to help formulate and develop literacy skills with English. Proficiency in a first language predicts learning of a second language (Cummins, 1981; Hoff, 2005). Upon entering school, hearing children use their well-formed language in becoming literate; DHH children must rely upon their limited/incomplete experience and skills with signs and/or auditory information to simultaneously develop skills with printed English.

As a result, DHH students face many challenges in becoming literate, including: a limited language base upon entering school, resulting in very limited vocabulary; a limited ability or an inability to use audition for incidental learning (which limits background knowledge); and a reduced capacity to rely on phonics for learning reading (which leads to many difficulties in learning to read and write). Students also must reconcile the language they use for communication (ASL or a manual code for English) with the language in print (English). For instance, students who communicate through American Sign Language (ASL) are constantly working between two languages with very different syntactic structures. Bilingual learning assumes that the child is competent in the grammatical structure of one language while building skills in the other (Cummins, 1981); this is a difficult task to present to any young child, but the linguistic skills of the young deaf child may be still at a very beginning level. The challenge of simultaneously developing language abilities while acquiring literacy skills is a serious one for deaf students. This interaction may also impact motivation for reading and learning.

### **Literacy Development: Motivational Issues**

With the difficulties DHH students face in comprehending and working through two languages, there is a real concern for their motivation for literacy. “The absence or loss of an initial motivation to read, or failure to develop a mature appreciation of the rewards of reading” is a huge detriment to future literacy (Dixon, 2003, p. 54). Low expressive language skills and low levels of emergent literacy skills negatively impact motivation to read and result in students falling “further and further behind in reading achievement over time” (Whitehurst, et. al, 1999, p. 270). This is called the Matthew Effect (Stanovich, 1986), and is in reference to the Biblical passage that describes how the rich-get-richer while the poor-get-poorer. For example, poor readers do not read as

much or as well as good readers, resulting in less language experience (Catts & Kamhi, 2005) and less comfort and ease with print.

Cunningham and Stanovich (2001) describe the reading experience cycle in terms of motivational and cognitive outcomes. Students whose initial experiences and independent attempts at reading result in positive feedback are motivated to continue reading, with that comes the benefit of expanded vocabulary and further knowledge. In contrast, poor readers lack literacy experiences and are frustrated by their attempts at independent reading. These negative experiences and feedback result in less reading volume for the struggling reader. As a consequence, these students not only have less practice and skill with reading, but also less opportunity to expand vocabulary, develop comprehension strategies, and increase their knowledge.

Differences in reading volume continue the rich-get-richer while the poor-get-poorer scenario. In fact, students who read independently outside of school for 21 minutes per day (the 90<sup>th</sup> percentile of study participants) read 1,823,000 words per year. This is in sharp contrast to students at the 10<sup>th</sup> percentile, who read only 8,000 words per year (Cunningham & Stanovich, 2001, p. 141). This can result in students at the higher percentile reading over a few days as much as students at the lower percentile read over an entire year (Torgeson, 2005). The Matthew Effect is applicable here in that students must work harder to close the gap between their achievement and that of their peers, while preventing it from growing wider (Whitehurst, Epstein, et al., 1994). Once formal reading instruction begins, the appreciation of and familiarity with text assists children with learning: reliance upon text is critical for future learning.

Thus language and literacy experiences, reading, and motivation form a vicious cycle that increases the experience gap on a daily basis. Limited experience contributes to reading problems, which result in reduced motivation for reading, which leads to further reading and language problems. These are the effects with hearing students; the issue of motivation and the phenomenon of the Matthew Effect have special relevance to the education of Deaf students. Their unique linguistic and literacy challenges represent further obstacles and can possibly be addressed through shared reading in ASL, an enjoyable and natural experience, providing not only cognitive but motivational benefits as well.

### **Research on Reading to Children**

Reading to children fosters cognitive, linguistic, and vocabulary development, as well as motivation that promotes further reading (Cunningham & Stanovich, 2001; Schleper, 1996; Whitehurst, Arnold, et al., 1994, Whitehurst, et al., 1999). The National Academy of Education Commission on Reading claims that, “the single most important activity for building the knowledge required for eventual success in reading is reading aloud to children” (National Academy of Education, 1985, p. 33). This is because reading aloud provides the opportunity for “talking and learning about the world and talking and learning about written language” (p. 22). Fountas and Pinnell (1996) list shared reading (Read Aloud) as the first of eight recommended essential components of integrated literacy instruction. In general, reading books to children has been found to: support their receptive language acquisition (Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg, & Poes, 2003), increase their expressive language (Senechal, LeFevre, Thomas, & Daley,



1998; Whitehurst & Lonigan, 2001), and expose them to various aspects of language found in print (Snow, Griffin, & Burns, 2005).

Research has shown that different familial circumstances may lead to varying language experiences (Hart & Risley, 1992; Hart & Risley, 1999; Heath, 1983) and literacy experiences (Adams, 1990; Catts, Fey, Zhang, & Tomblin, 1999; Catts & Kamhi, 2005). Indeed, Adams estimates that children from typical middle-class families have experienced between 1,000 and 1,700 hours of reading one-on-one with a parent by the time they begin first grade, while in contrast, children from low-income families may only have 25 hours of this kind of reading (Adams, 1990, p. 85; Lonigan & Whitehurst, 1998, p. 264). It is unlikely that hearing parents, with their limited and beginning sign language skills, are signing stories to their DHH children.

Interventions have been undertaken to address language and literacy issues with hearing students, particularly for those deemed at-risk for emergent literacy development and/or reading achievement, typically due to low income status or bilingual issues. These areas of research can and should be extended to work with DHH students, to determine whether they respond in a positive fashion similar to hearing students. This is because there is a “significant mismatch” between the knowledge and experiences these students have and what schools expect of them (Whitehurst and Lonigan, 1998, p. 857). While the field of deaf education acknowledges that most of its students have substantial language delays, it appears not to be designing or implementing classroom interventions to address this or recognizing its subsequent repercussions for literacy achievement. There has been an increase in research investigating bilingual approaches within Deaf Education; however, there is still not enough attention in the form of specific classroom interventions to develop student proficiency in American Sign Language prior to explicit instruction in English literacy. Reading books to children using American Sign Language—story signings—can therefore address the language and literacy developmental issues of DHH students, while subsequently providing an experience that motivates them to pursue further literacy activities. The following section of this chapter will examine research on reading to both hearing and deaf and hard of hearing students by parents and teachers.

### **Parents Reading to Children**

In a meta-analysis of parent-preschooler book reading, Bus, van IJzendoorn, & Pelligrini (1995) concluded that this activity supports language growth, emergent literacy, and reading achievement. Along with providing factual information, the language of books offers more complex examples than that of spoken language (Cunningham & Stanovich, 1991). Children who have impoverished oral language and literacy experiences, including access to and experience with print materials, are at risk for reading difficulties (Storch & Whitehurst, 2001; Storch & Whitehurst, 2002). Neuman (1999) described the following benefits of increased access to books and literacy experiences to children: increased background knowledge and opportunities for incidental language learning, motivation for further reading and dialogue, and the opportunities to learn skills and behaviors necessary for further literacy learning.

With DHH students, their families typically do not have sign language skills for more than basic communication, and hence do not have the more advanced ability to read books to their child using sign language (in short, they cannot translate English orthography into ASL). An intervention has been developed to address the linguistic

needs of Deaf children and the difficulties their parents face in reading books in sign language to them. David Schleper observed Deaf adults, native and fluent users of ASL, as they read stories to young children. He identified successful strategies to engage the child and make connections between the English print and their own reading using ASL. From his observations, he developed a list of 15 principles to be used in reading books to DHH children (Schleper, 1996). With this information, Schleper developed the Shared Reading Project (SRP). Deaf tutors were trained in these reading principles, and then matched with families for a 20 week intervention. The tutor trained parents in incorporating these principles in reading books using ASL to their Deaf child. Every week, the tutor read a new book with the child and parents. The tutors also brought additional materials, including a videotape of a Deaf adult signing the story, for the family to use during the week. Evaluations of this program indicate that parents became more active in reading books to their child during the tutoring, but do not offer empirical results of its influence on the language and emergent literacy skills of the Deaf children, but have focused on implementation and sustainability of SRP across settings (Delk & Weidekamp, 2001).

Plessow-Wolfson and Epstein (2005) investigated the influence of shared reading on narrative comprehension and linguistic reasoning. Seven dyads of deaf children—aged four through nine—and their hearing mothers were observed and assessed on their interactions during the reading. As mothers increased their use of shared reading, children engaged in more complex linguistic exchanges and demonstrated more instances of abstract reasoning. However, while the researchers described parent-child interactions, and provided samples of those exchanges, they did not offer quantitative data, such as numbers of questions, expansions, or elicitation of concepts from the mothers to their children. It was also unclear if the participants had previously engaged in Schleper's Shared Reading Project, and were possibly trained in reading techniques by a Deaf tutor; this would have been valuable information and would have added needed support for that project.

### **Classroom Interventions: Styles of Reading**

The nature and quality of classroom conversations around and interactions with books has gained the attention of several researchers (McKeown & Beck, 2006). Brabham and Lynch-Brown (2002) built on previous work by Dickinson and Smith (1994) and Teale and Martinez (1996) to investigate reading styles and interactions between teachers and their students. Brabham and Lynch-Brown identified three kinds of reading styles used by teachers. With the first, just-reading, the teacher reads the book without asking questions of students, and without making or soliciting comments. The second style, interactional, has the teacher simultaneously reading and discussing the text with students. In the final style, performance, the teacher promotes discussion before and after reading, but performs the story itself uninterrupted. They conducted an intervention study using trained student teachers in early elementary grades, and found a high degree of fidelity of the implementation. Their results indicated differing student outcomes based on reading style, with the interactional style having the largest effect on vocabulary learning. Researchers posit that the timing of discussions during reading is critical to facilitating vocabulary development.

A study on group storybook reading with Deaf students was conducted by Gillespie & Twardosz (1997). Purposes of the study were twofold: to identify stylistic features utilized by the readers and to evaluate the effects of the intervention on the emergent literacy skills of the students. Their pre- and post-test research design used matched intervention and control groups in the dorms of a residential school with a total of 18 students between the ages of four and 11. The intervention participants were involved with group storybook reading twice weekly by either dorm counselors or older students.

Results of this study showed that students in the intervention group were more interested in reading than their peers in the control group. However, these findings are questionable due to methodological issues within the study itself. First, interest in the story was based upon the perceptions of the dorm counselors and classroom teachers of student attitudes towards reading, but there was no direct questioning of the students *on their own* attitudes towards reading. In addition, interest was measured through visual attention to the story, which does not necessarily reflect engagement; a student can be looking at the reader but still daydreaming about another topic.

Researchers also claimed that students from the intervention group developed their emergent literacy skills more than students in the control group. However, emergent literacy skills were based on measures of students' ability to independently retell a story, but not on any direct test of reading, such as comprehension or identification of vocabulary. While narrative skills are an important part of language and literacy, there was no discussion of qualitative differences among individual students before and after the intervention.

One final critique can be made about this study. The first goal of the research was to identify features employed by the readers. While there was a brief description of categories of reading style (interactive/expressive, unexpressive, and managing), again there was no qualitative description of what that looks like in practice. In essence, while this study made a good attempt to link the importance of storybook reading with student performance, methodological issues left the research questions unresolved and unsupported. In addition, there were no qualitative descriptions that could have provided important information to practicing teachers.

### **Dialogic Reading**

Whitehurst has conducted several studies with other researchers on the use of particular reading style, dialogic reading, in the home, day care and preschool environments, with the particular goal of improving oral language (Whitehurst, et al., 1988; Whitehurst, Arnold, et al., 1994; Whitehurst, et al., 1999). Dialogic reading aims to make the child an active participant in the reading process by having adult readers engage in prompting of the child, evaluating and expanding on their response, and repeating comments (Whitehurst, Epstein, et al., 1994). The adult readers engage in the specific practices called *PEER*: Prompting of the child, Evaluating and Expanding on their response, and asking children to Repeat correct responses. Prompts are described using the acronym *CROWD*: Completion questions (ask student to complete a phrase); Recall (ask child to remember detail); Open ended questions (allow child to discuss story ideas and use new words); Wh-word questions: (what, who, where, why), and Distancing (trying to connect the book to the child's life). Dialogic reading practices involve reading

a story numerous times with children. The first time, the teacher takes the lead in reading the story. On subsequent readings, the teachers uses PEER and CROWD to actively engage the child in conversation around the book. Because of this activity and repeated readings, the child is able to retell the story.

In order to examine the relationship between dialogic book reading and oral/expressive language development, three experimental conditions were established: a control group, school reading only (intervention group) and school plus home reading (intervention group) (Whitehurst, Arnold, et al., 1994). Participants were drawn from child-care centers in economically disadvantaged neighborhoods. Researchers gave pre-test, post-tests and delayed post-tests (at six months). Children in the intervention groups doubled their number of words from pre-test to post-test when compared to the children in the control group (p. 685). The intervention clearly impacted positively on the expressive language of participants, despite the brief time period of the intervention.

An attempt to address the long-term effects of the dialogic reading program was replicated with a new cohort, followed from kindergarten through second grade (Whitehurst, et al., 1999). While results showed that the simple changes from the intervention did enhance emergent literacy skills at kindergarten, those effects did not generalize to reading scores of participants at the end of first or second grade. Although a direct connection between the reading intervention could not be linked to future reading performance, the researchers theorized that dialogic book reading may have more influence on access and attitudes with reading for both children and parents.

Other researchers have also examined dialogic reading. Wasik & Bond (2001) conducted a study with preschoolers from low-income families. Teachers were specifically trained to do the following: introduce new vocabulary before the book reading, ask open-ended questions during the reading, and engage students in discussions during the reading and related activities. At the conclusion of the study, students in the intervention group scored significantly higher than their peers on measures of expressive and receptive vocabulary. The researchers found that for students with delayed language “their classroom experiences are an essential part in teaching them language and vocabulary” (p. 248).

Crain-Thoreson & Dale (1999) used dialogic reading with a group of students, aged four to six, exhibiting mild to moderate language delays in early childhood special education. They had two intervention groups (parents reading one-on-one with their children and teachers reading one-on-one with students) where parents and teachers had received training in dialogic reading practices. The control group was teachers reading one-on-one to students without training. Findings indicate that the adults “became more responsive to children by slowing down, decreasing their verbatim reading and information statements, and increasing their questions and expansions of children’s utterances” (p. 36). Although there were no statistically significant results from testing, perhaps due to the small sample size, students did demonstrate “more elaborate expressive language” during the readings (p. 36). In addition, the researchers found that student outcomes were predicted by their developmental level at the start of the study: students who initially exhibited more advanced language displayed more benefit from the intervention. These results differed from a previous study by one of the authors, which found that children with lower language skills at pre-test exhibited vocabulary learning due to the intervention, whereas the students with higher language at pre-test had

exhibited development in their grammatical competence (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996).

Whitehurst's dialogic reading intervention was replicated in an attempt to address the language and literacy needs of deaf Chinese students. Fung, Chow, and McBride-Chang (2005) replicated the intervention over an eight-week period with students from kindergarten through second grade. Although Whitehurst and colleagues (Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994) trained teachers and parents, this study focused only on parents. There were three experimental conditions for the research: control, typical reading, and dialogic reading. In the dialogic reading group, parents were sent books with prompt questions at the end of each page and at the end of the book. Parents in the typical reading group were sent the same books, but without written prompts.

There were some questionable aspects to this research (Fung, Chow, and McBride-Chang, 2005). First, it is unclear what kind of training the parents received for dialogic reading, and it appears that some parents did not receive *any* training. Written prompts were attached to each page of the book for parents in the dialogic reading group; it was not clear if this alone was the training to parents or was merely a supplement. In addition, the researchers did not clarify if the prompts were used only initially to accustom parents to the procedure of dialogic reading or if they were utilized throughout the intervention. Use of written prompts is also concerning in that parents were then not following the lead of the child, perhaps resulting in a more artificial interaction. Another concern was the strict focus on oral language with and from the students, regardless of severity of hearing loss, and with only minimal allowances for sign language. The intervention included the use of picture cards, so the child "... could point or take the card out as a response" (p. 87). However, this activity does not appear to be furthering the child's development of expressive language skills<sup>3</sup>.

Although there were some issues with the study, results were positive. Results may have been more substantial if there was training for all parents involved and if there were qualitative measures to determine the fidelity of implementation; self-reports by parents on the duration and frequency of reading were the only records about the reading experience itself. In comparison of pre-and post-tests, scores for the control and typical reading groups went down slightly, while there was a significant gain in the receptive language—specifically vocabulary—of children in the dialogic reading group. Researchers hypothesized that the focus on conversational language around books, and not just the act of reading, accounted for the better linguistic results of participants in the dialogic reading group.

### **Summary of Reading Interventions**

These studies provide evidence for the linguistic benefits of reading to children, particularly with expressive language and vocabulary development. Specifically, the effectiveness of the practice hinges on *how* the books are read to children (Brabham & Lynch-Brown, 2002; Justice & Ezell, 2002). The concepts and goals of dialogic reading,

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<sup>3</sup> This focus on speech skills and picture cues as opposed to the use of sign language appears to result in more limited language experience and development. As the early years are critical for language development, the decision to neglect sign language, in my opinion, may further limit the development of these children.

when utilized with DHH students, can increase their experiences and abilities with language and literacy. In summary, dialogic reading could be advantageous to DHH learners for a variety of reasons: they provide sophisticated models of language, with both ASL and English; they encourage dialogue and discussion; they exemplify the social aspects of reading and learning; they provide ongoing experience with language and literacy; and they provide motivation for continued literacy experiences and learning.

Research has delineated the benefits of shared reading with hearing children (Neuman, 1999; Sipe, 2000; Snow, Griffin, & Burns, 2005; and Whitehurst, Arnold, et al., 1994, 1999). However, while there is support for this literacy practice with DHH children and their parents (Schleper, 1996), little research can guide this practice in the classroom for DHH students (Fung, Chow, & McBride-Chang, 2005). Indeed, while it is known that the linguistic abilities of deaf children may be limited due to lack of exposure and experience, there has been little discussion of how this relates to teacher responsibilities and classroom practices.

### **The Knowledge Base for Educators of DHH Students**

The unique needs of deaf and hard of hearing learners place additional demands on their teachers. Typically acquired from parents and family, language learning is not incidental for the deaf child, and language teaching becomes the responsibility of their educators. Teachers must spend valuable classroom time building expressive and receptive vocabulary and communication skills before they introduce sight and written vocabulary in English. In addition, they must teach a large amount of background information (Johnson, 2004). All of this takes time away from the regular classroom curriculum. This becomes an accountability issue for the teachers. Far worse, however, is that for students, the gap in achievement between them and their hearing peers continues to grow, as described by the Matthew Effect (Stanovich, 1986). For a variety of social, cognitive, and academic reasons, it is imperative that classroom teachers facilitate the linguistic development of their students.

The language issues of deaf students lead to problems with literacy. Numerous reports and studies over the years indicate that most DHH students graduate high school with a fourth grade reading level, (Johnson, 2004; Johnson, Liddell, & Erting, 1989; and Lane, 1999) which qualifies as functionally illiterate. In fact, one of the strongest hypotheses for these dismal literacy levels of DHH students is that they never recover and are permanently affected from the linguistic impoverishment of their early years (Quigley & Paul, 1984). With the unique challenges of these students, it comes as no surprise that they are not performing at grade level, especially on literacy measures (Erting, 2003). As the need for individual literacy skills in our society is unquestioned, educators must exhibit competencies with a myriad assortment of knowledge and skills in order to facilitate students' capabilities in reading and writing.

With the implementation of dialogic reading in ASL, I wanted to identify the knowledge and skills necessary for teachers to address the specific needs of their students. I predicted three such areas: knowledge for teaching reading, knowledge for bilingual instruction, and competence in ASL. These are three variables among many, but their importance lies in pedagogical content knowledge with reading and bilingual strategies, executed through skill in ASL. A key question is how teacher preparation programs are currently functioning in preparing teachers in these critical areas.

## **Knowledge for Teaching Reading**

Studies indicate that college preparatory programs in typical early childhood and elementary education are in need of change to address the poor reading achievement of hearing students (Moats, 1999; Snow, Griffin, & Burns, 2005). Strikingly obvious then is the need for an even wider breadth of knowledge in specialized education, with more sophisticated knowledge of children's cognitive and linguistic development. This is especially true in the field of deaf education, where students have severe language delays, which negatively impact on their cognitive and academic development; where there is a prevalence of additional disabilities; and where reading and writing strategies must be tailored to the specific needs of students. All of these factors combine to produce a "daunting, if not impossible, array of needed competencies" within its' teachers (Johnson, 2004, p. 85).

Research from hearing classrooms sheds light on possible issues for teachers of DHH students. In terms of developing language competency, it appears teachers of bilingual hearing students feel they are building language skills throughout the day but are not actually incorporating specific and explicit instruction to build vocabulary (Saunders, Foorman, & Carlson, 2006). The limited time spent on developing language skills focuses on discussion of narratives, not on the abstract, decontextualized academic language of the classroom. In essence, teachers need an understanding of the importance of "intentional instruction" to develop language and literacy abilities (Dickinson, McCabe, & Anastasopoulos, 2003, p.102). Teachers of DHH students may also feel that their signed communications throughout the day are sufficient to build vocabulary, and may not understand the power of simple interventions to improve their students' language.

In terms of reading to students, there are also unsettling findings from hearing classrooms. In a survey of elementary teachers, most acknowledged that reading aloud to children was a regular part of their classroom practice. However, the concern was their reason for doing so: the majority of teachers said the activity was not for instructional purposes, but to provide an enjoyable and/or entertaining experience for the students (Lickteig & Russell, 1993). Since then, research has indicated the value of this practice for developing language abilities (see previous section). However, in more recent observations of classrooms, more time was spent in transitioning between activities than on reading itself, which accounted for only 7-8% of daily activities (Dickinson, McCabe, & Anastasopoulos, 2003, p. 105). Teachers need to be made aware of the benefits of shared reading and "systematically and explicitly plan" for its daily use (Kirkland & Patterson, 2005, p. 393).

Literacy is seen as a huge obstacle for Deaf students, and their reading levels are used to prove the illegitimacy of their educational system. However, teachers cannot be blamed for the educational problems of the system when they were denied the necessary tools for achievement: there is extremely limited coursework for pre-service teachers in reading. This is counter-intuitive to the needs of students; those needs and successful intervention strategies must become an explicit part of the curriculum for preparatory programs. In a statewide assessment of working teachers, almost 25% had no methods class on teaching reading to deaf students, and 62% had no methods class on teaching writing (Dodd & Scheetz, 2003, p. 29). In a nationwide review of the Council of the Education of the Deaf (CED) approved teacher preparation programs, "37% of the

programs did not report offering a specialized curriculum and methods course in deaf education. . . and 57% did not report a specialized course in methods of teaching reading to deaf students” (Jones & Ewing, 2002, p. 76). (If there is such an obvious lack of necessary coursework in programs that are approved by the CED, it is concerning to consider the curriculum requirements in the 25 other programs nationwide that are not approved.) How can we expect students to be successful readers if their teachers are not given the knowledge and skill to teach reading well? Teacher preparation programs are not providing their students with adequate preparation to teach reading to DHH students in general. More specifically, teachers may not be incorporating shared reading in ASL into their practice due to this lack of knowledge regarding the benefits it provides in regards to language and literacy.

### **Knowledge and Skill for Bilingual Instruction**

**Competency in American Sign Language.** The goal of the teacher preparation programs should not be how to *communicate* with deaf children but on how to *teach* deaf children. Unfortunately, many such programs currently accept students with little to no sign language skills, and then offer only a few sign language classes. Upon graduation, these students then become teachers, but do not have competency in ASL; instead of improving the linguistic and academic problems of the child, which are already severely delayed, they are compounding them (Johnson, Liddell, & Erting, 1989; Lane, 1992; Mahshie, 1995; French, 1999).

In the previously mentioned CED report, it was calculated that almost 20% of courses for pre-service teachers were for sign language (2002, p. 74). If students enter the program with a prerequisite level of ASL, coursework in content and methods could be exchanged for those courses in sign language. Measures of fluency, such as the Sign Communication Proficiency Interview (SCPI, Newell & Caccamise, 1997) and the American Sign Language Proficiency Interview (ASLPI) indicate signing abilities of hearing teachers. A new teacher in a preparation program for Deaf students should exhibit a competent level of fluency before admission, and a meet a higher requisite level upon graduation. Without at least adequate skills in ASL, teachers will be unable and perhaps unwilling to read books to their students using ASL.

**Knowledge for bilingual instruction.** A natural avenue to foster linguistic and literacy development seems to be a bilingual approach, where students develop proficiency in ASL before acquisition of English as a second language (Evans, 2004; Mahshie, 1995; Quigley & Paul, 1984; Wilbur, 2000). This strategy uses proficiency in ASL to support the development of English, while also recognizing the value of the child’s language and the need for a visually accessible language (Hoffmeister, 2000; Padden & Ramsey, 2000; Strong & Prinz, 1997). At the core of this premise is the goal of fluency in each language, which starts with building vocabulary. This philosophy of bilingual education has been supported through research. Strong and Prinz (1997), using various methods, tested the English literacy abilities and ASL production and comprehension abilities of 155 Deaf students. Their results found a statistically significant relationship between skill level of ASL and English. Hoffmeister (2000) also found a statistically significant relationship between these two languages in his study of sophisticated linguistic structures of ASL, which he related to the more complex language found in schooling, and reading in particular. The results of a study by Padden



and Ramsey (2000) found a similar correlation between students' knowledge of ASL structures and their reading achievement. Strategies also need to be utilized within the classroom to make explicit the connection between signs and fingerspelling of ASL to the English print (Lane, 1999; Padden & Ramsey, 1998). For Deaf students, the bilingual method indicates that fluency in ASL promotes English literacy skills.

However, knowing a language is critical to learning to read, but it is not enough: teachers still need to explicitly teach reading (Goldin-Meadow & Mayberry, 2001). The bilingual method is vital to story signing in ASL, as teachers need to make connections and comparisons between the two languages. Evans, however, points out three ways that Deaf bilingual education differs from that for hearing students: "... (a) language modality (signed vs. spoken/written); (b) the absence of a written form of the first language, ASL; and (c) the inconsistent exposure of deaf children to the first language" (2004, p. 18). These differences need to be examined by the field of deaf education and appropriate adaptations researched before application by teachers (Singleton, Morgan, DiGello, Wiles, & Rivers, 2004). In particular, the lack of a strong first language (Mayberry, 1993) by Deaf students requires an analysis of the bilingual strategies and techniques implemented by teachers.

While bilingual strategies are critical for educators (Easterbrooks, 2008), it remains unclear if teacher preparation programs offer training in bilingual education and methodology (de Garcia, 1995). This may be due in part to the scant research on specific strategies to use with bilingual students, either deaf or hearing (Vaughn, et al., 2006). Lack of training in these methods may hinder the teacher's abilities to accurately identify issues of students and adequately address them in educational practice. The outcomes for student achievement can only improve with that increased knowledge and practical experience in applying these pedagogical strategies.

### **Continuing Knowledge Development**

In reviewing the literature, it appears that teachers need a high level of sophistication with several capacities in order to successfully implement the use of story signing in ASL. These include knowledge with literacy and bilingual strategies and competence in ASL. The outcomes for student achievement can only improve with that increased knowledge and practical experience in applying pedagogical strategies. However, it appears that teacher preparation programs may not be adequately preparing teachers in these areas. It is therefore vital to examine how knowledge continues to develop as one moves from being a pre-service to an in-service teacher.

Professional development programs have been designed to support in-service teachers in further developing their knowledge and skills. Recent work has attempted to define the knowledge that is needed for teaching, how that knowledge develops (Hammerness, Darling-Hammond, & Bransford, 2005), and how teachers apply that knowledge in practice—what Shulman, in his seminal work, termed pedagogical content knowledge (1986). Several researchers have conceptualized knowledge development through stages. Berliner (1988), for example, identifies the stages as a progression from a novice to an expert teacher over the course of one's career. According to Snow, Griffin, & Burns (2005), teacher knowledge should be seen as a "progressive differentiation" (p. 6) that encompasses the following levels: declarative, situated, stable, expert, and

reflective (p. 210). These levels of knowledge will be influenced by experience and will be represented differently over the course of the teacher's career.

Attempts to increase teacher knowledge through professional development have historically been conducted through workshops and presentations by outside experts. More recently, there has been a move to examine how knowledge can be gained, shared, and developed within a community of teachers working and learning in a collaborative environment. This is in contrast to the perspective of teaching as a very individual and isolated task (Little, 1990; Lortie, 1975). Fundamental to this collaborative model are two things, the ongoing learning of teachers and the role of social support and interaction for continued development (Callahan, Benson-Griffo, & Pearson, 2009).

A model of collaboration for continued teacher learning, called *Fostering Communities of Teachers as Learners*, has been developed by Shulman & Shulman (2004). Interestingly, their work is based upon that of Ann Brown, who was one of the first educators to apply a design model to educational research (this study utilized a design-based method). Brown & Campione (1992) designed a model of *student* learning based on collaborative work, which they called *Fostering a Community of Learners*. Shulman & Shulman applied this model to examine and guide how *teacher* learning develops. They describe six crucial features of their conceptual model: vision, motivation, understanding, practice, reflection, and community. They examine the relationships of these elements, using both individual teachers and communities of teachers as their units of analysis.

These conceptual models can inform curriculum at the levels of both pre-service teacher education and in-service professional development. Although there have been attempts to identify how teacher knowledge develops, further research is needed to delineate the content and pedagogical knowledge critical for teaching reading (Callahan, Benson-Griffo, & Pearson, 2009; Snow, Griffin, & Burns, 2005).

### **Summary of Teacher Knowledge and Skill Development**

The language and literacy development of children is complex; the challenges of DHH students become challenges to their teachers, who require a broad range of knowledge and skill. In general, we assume that language development occurs naturally, through hearing, incidental learning, and everyday interactions. This is not the case with DHH students, so the implications for language development on future literacy abilities are much more significant and provide a clear demonstration of the connection between the two. With the language and literacy issues of deaf and hard of hearing students, there are a variety of circumstances, situations, and consequences that come together to create a perfect storm. Teachers must address these issues and subsequent delays simultaneously, all within the constraints of the curriculum. We know that reading to children can build vocabulary, provide motivating literacy experiences, and develop world knowledge (National Early Literacy Panel, 2008). However, teacher preparation programs may not be providing the knowledge and skill set required of teachers to implement this practice. Specifically, pre-service teachers may not be given the knowledge of its benefits, may not be taught explicit bilingual strategies appropriate for use with DHH students, and may lack sufficient ASL competency.

We know that reading to hearing children can be very useful for both school-aged children (National Academy of Education, 1985; Brabham & Lynch-Brown, 2002; Whitehurst, et al., 1999) and pre-schoolers (National Early Literacy Panel, 2008), and

there is support for the use of ASL story signings with Deaf children and their parents (Schleper, 1996); however, there is currently little research on this practice in the deaf education classroom (Fung, Chow, & McBride-Chang, 2005). In addition, with the practice of shared reading providing numerous advantages to students, it should be common in the educational experiences of DHH students; however, this is may not be the case. This current study investigated this further. Information about how teachers do implement it, along with reasons preventing teachers from using it in their classroom, can be combined to create an intervention for pre-service and working teachers. Such a project would fill a void in the research and empower teachers to incorporate dialogic reading in ASL into their practice. By doing so, they could instill in their students motivation and appreciation for literacy, so that they can be accomplished lifelong readers and writers.

## CHAPTER 3: RESEARCH DESIGN AND METHODS

This chapter will outline the various aspects of the methods of this study, including the goals of the research and a rationale for and a description of the choice of methods. Also included are descriptions of the participants and sites, the procedures for data collection and analyses, and the quality indicators of validity and trustworthiness.

### Research Framework

#### Synopsis of the Study

This study was undertaken to investigate a specific intervention, dialogic reading, for the purposes of addressing the unique needs of deaf and hard of hearing (DHH) students in regards to language and literacy: dialogic reading appeared to be a way to facilitate linguistic development while providing children the benefits of engaging with books. As described by Whitehurst and colleagues (Whitehurst, Arnold, et al., 1994), the goal of dialogic reading is to improve children's expressive vocabulary by engaging them actively in the read aloud/story signing. This intervention was chosen because it merely changes the style of interaction during reading to students, an activity that is considered best practices and which I assumed would be a regular part of the classroom schedule; the purpose of this study was to make that time more productive. I felt this intervention could easily be added to the existing classroom practices and would not place an additional burden on teachers. I was specifically interested in studying the sustainability of dialogic reading. The research questions focusing on the work with teachers were:

4. What specific knowledge and skills do teachers need to implement dialogic reading practices in order to address the language and literacy needs of deaf and hard of hearing students?
5. What are the obstacles/challenges to implementing dialogic reading? What aspects impede implementation, fidelity, and sustainability? What factors are consistent with sustained practice?
6. How does dialogic reading need to be adapted to meet the particular needs of deaf and hard of hearing students?
  - a. In what ways do these adaptations surface across grades, settings, levels of hearing loss, and communication needs?
  - b. What are critical features of supplemental direct instruction connecting ASL signs to English print?

The research questions were addressed through analysis of meetings between teachers and myself and through observations of teacher practices during story signings/read alouds and reading lessons. In particular, the collaborative nature of the work with teachers fostered discussion around aspects of dialogic reading that appeared to be successful, which were challenging, and, more important, why. We then attempted to address these issues in lesson planning and further implementation of dialogic reading. Documentation of this collaboration, especially the process of negotiating the iterative changes in the intervention, was a constitutive element of this research, with transcripts of audiotaped conversations serving as the main data source. The timeline of the study began with baseline interviews and observations, then training in dialogic reading practices, and continued with ongoing implementation work with dialogic reading in order to identify impediments and adaptations.

## Research Design

This qualitative research was conducted as a combination of case study and design-based study methods. Case studies are the preferred method “. . . when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context” (Yin, 2003, p. 1). For these reasons, this was an appropriate research design choice. Case studies also allowed me to examine the individual experiences of teachers in-depth and then compare themes across cases (see Chapters 4 and 5, respectively).

Because the focus of this study was on the real-life context of classrooms, and because I wanted to make changes with teachers during the implementation, design-based study methods were also employed. Design research originated in the fields of engineering and computer science, where researchers investigated how different designs affected multiple variables (Collins, Joseph, & Bielaczyc, 2004). Design studies are different from traditional research in that they are conducted in unpredictable, real life classrooms, not controlled laboratory environments (Collins, 1999). These settings are complex due to the interplay of multiple variables, which cannot be controlled by the researcher; the researcher instead aims to characterize the situation, and maintains a flexible and iterative design plan in response to the needs of the participants. Design research has developed from the recognition that in educational research, many variables are interrelated and not able to be controlled (Brown, 1992; Lonigan & Whitehurst, 1998).

Shavelson and colleagues (Shavelson, Phillips, Towne, & Feuer, 2003) describe another critical feature of design methods, which is the iterative process of design, analysis, and redesign cycles with the purpose of further learning and/or intervention improvements. The purpose, therefore, is not to empirically test variables or validate instruments, but to examine the “. . . multiple dependent variables to develop a qualitative profile linking different instructional conditions with corresponding effects on learning within complex social milieu” (Lobato, 2003, p. 19). Design study methods have also been compared to the alpha, beta, and gamma stages of software development which begins with exploring and identifying critical features, continues with supportive conditions, and then moves to “widespread adoption with minimal support” (Brown, 1992, p. 172). Brown explains that design research explores features critical for the intervention to succeed within the classroom of study, and then should be applicable to similar classrooms (see also Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Design-Based Research Collective, 2003). She further asks: “The question becomes, what are the absolutely essential features that must be in place to cause change under conditions that one can reasonably hope to exist in normal school settings?” (Brown, 1992, p. 173) As this was my goal, to identify elements of practice with dialogic reading in DHH classrooms, this method was also appropriate.

Design experiments have to date been conducted mostly with math and science education, so this research will be one unique in its focus on language and literacy development, as well as the use of special education students. In addition, most design research has focused on the learning of students, while only recently has this methodology been used to document the learning of teachers (Cobb, Zhao, & Dean, 2009). This study aims to both document teacher implementation and ongoing learning and improve the design for supporting that learning.

## **Procedures and Data Collection**

In order to answer the research questions, multiple sources of data were used to gather information about the four participating teachers and their practices. These data sources included questionnaires, interviews, videotapes of story signings/read alouds and reading lessons, transcripts of audiotaped meetings between myself and teachers, and document review. The timeline of the study began with baseline interviews and observations, then training in dialogic reading practices, and continued with ongoing implementation work with dialogic reading in order to identify impediments and adaptations. Each of these phases of the study and their data sources are explained below.

### **Before the Intervention: Baseline Practices**

After gaining access to sites and teachers, I held introductory meetings with teachers to explain the goals of the study and the collaborative nature of the work. Teachers then signed the Teacher Informed Consent documents and completed a questionnaire. I also observed and videotaped story signings/read alouds and reading lessons and conducted interviews with each teacher.

**Questionnaire.** Teachers were initially asked to complete a questionnaire, which was completed at their convenience. The questionnaire requested information about language and literacy goals for their students, classroom practices with reading, and their professional experience (see Appendix A).

**Initial observations.** Baseline observations of each classroom were conducted prior to the training in the intervention. This was to document teachers' overall practices with language and literacy throughout the day. In particular, I was interested in their practices with story signings/read alouds and reading instruction. In addition I was able to identify what, if any, aspects of dialogic reading they were already utilizing, and able to identify if and how they made connections between the ASL of signed stories and the English text with their students.

**Interview.** I developed open-ended questions for an interview related specifically to teachers' reading practices and language and literacy issues of their students. I also asked questions about specific instructional strategies observed in their classrooms and responses to the written questionnaire (see Appendix B). These interviews were audiotaped to ensure accuracy and to provide a permanent data record.

### **Training**

After initial observations and interviews had occurred, I trained teachers in dialogic reading practices. The training involved three parts, an introduction to the study and the research base that supported it, a videotape describing dialogic reading, and a discussion on aspects of dialogic reading. The training was presented via a power point presentation with 22 slides total. For each teacher, the training occurred over two sessions, mostly because the review of research stimulated very active discussion with the teachers.

The introduction provided the theory and research supporting my study and included the following topics: language delays with hearing and deaf and hard of hearing students, the dependence on language for literacy learning, the benefits of reading to students, and issues with teacher preparation for teaching reading. Previous research with dialogic reading has used a brief videotape for training (Crain-Thoreson & Dale, 1999;

Hargrave & Senechal, 2000; Lonigan & Whitehurst, 1998), and I purchased the videotape *Read Together, Talk Together* for this purpose (Pearson Early Learning, 2006). The video describes the critical features of dialogic reading, PEER and CROWD<sup>4</sup>, and includes vignettes of adult-child book reading and guidelines for implementation. After watching the video together, teachers and I reviewed the features of dialogic reading, discussed the changes that occur with repeated tellings of a story, and considered possible differences in using dialogic reading with DHH students.

### **Ongoing Implementation Work**

**Collaborative meetings.** This design study was conducted collaboratively with teachers to examine the implementation of dialogic reading. After the training, each teacher and I discussed her goals and concerns for her students, and how those mapped onto my objectives for the study. We then collaboratively agreed on specific focal areas for the course of the study. Naturally, the individual teachers each had separate areas of focus and struggles with the implementation. Regular meetings were scheduled with teachers to share information, concerns, and ideas for the design and implementation of the dialogic reading experience; the key element here was the adjustments to implementation deemed necessary by the teachers and myself, for themselves and for students. Documentation of the collaboration, especially the process of negotiating any iterative changes in the intervention, was a constitutive element of this research. Cobb and colleagues refer to these meetings as “. . . the sites where the intelligence of the study is generated and communicated” (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003, p. 12). All of these conversations were audiotaped and transcribed and served as a main data source for this study.

**Ongoing observations.** Observations of story signings/reading aloud sessions and reading lessons were videotaped; these observations were coordinated with teachers and were dependent upon their schedules and preferences. During these observations, I attempted to take notes, especially to document information that was not caught on camera. However, because of the visual nature of sign language, my notes were limited, as I wanted to attend to the activity; looking away to write notes meant I was missing signed information from the class. Field notes written immediately after these sessions supplemented the video data.

**Document review.** I also reviewed various documents during this qualitative process. These included lesson plans (for further instructional strategies described), the class weekly schedule (for documentation of language arts and reading times), and artifacts produced during lessons.

**Exit interview.** At the end of the study I again interviewed all four teachers to ask their thoughts on the following topics: their successes and problems with dialogic reading, issues with implementation, suggestions for future training of teachers in dialogic reading, ways to improve my role for future iterations of the study, and their thoughts on collaboration. (This interview guide can be found in Appendix C).

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<sup>4</sup> PEER: (Prompt, Evaluate, Expand, Repeat). CROWD: (Completion, Recall, Open-ended, Wh-word, and Distancing questions. Distancing refers to connecting the book to a child's own experience). (Pearson Early Learning, 2006; US Department of Education, 2007).

## Data Analysis

Information gathered from the data sources was analyzed in attempts to answer the research questions. In particular, the collaborative nature of the work with teachers fostered discussion around aspects of dialogic reading that appeared to be successful, which were challenging, and, more important, why. These discussions offered very interesting insights and a wealth of data for the analysis. The research questions were also examined through collection and analysis of teacher and student interactions during story signings/read aloud sessions.

To support validity and trustworthiness, Yin (2003) recommends three principles for data collection, which I followed and document within this section. These are “(a) using multiple, not just single, sources of evidence; (b) creating a case study database; and (c) maintaining a chain of evidence” (p. 85). The multiple data sources for this study include questionnaires, interviews and meetings (including audiotaped data and transcripts), observations (including videotaped data and transcripts as well as coding forms), and various documents. Data was compiled in a database within the qualitative software programs used for transcription, HyperTRANSCRIBE, and for coding and analysis, HyperRESEARCH. Each day that I worked with teachers I documented the various types of evidence I collected. This information was then transformed into an additional document by data source type to document transcription, coding, and analysis of the evidence. Data collection and procedures of the study are described in detail below.

## Transcriptions

**Audiotape data.** I transcribed all audiotaped interviews and collaborative meetings verbatim and in their entirety. Although there was an enormous amount of information—just under 25 hours of audiotape data—I chose to do the transcriptions myself, instead of hiring someone, so I could be immersed in the data and know it well for purposes of coding and analysis. The transcriptions were conducted using the qualitative software program HyperTRANSCRIBE. This software allowed me to repeat five-second segments of the tape while I transcribed and move backwards (or forwards for that matter) throughout the entire audio, which easily allowed me to ensure and check accuracy. I could also insert time codes into the transcript, which I did roughly every five minutes. This afforded me the opportunity to find specific comments by teachers within the audiotape itself.

**Videotape data.** Unlike the audiotaped data where everything was transcribed and coded, videotapes were chosen for specific purposes at beginning, middle, and end-points of the study. For example, videotapes of each teacher’s baseline practices—with story signings and reading instruction—were chosen because they were included in the within-case analysis description (see Chapter 4). Additional videotapes were viewed for further analysis and to document the use of dialogic reading practices over the time of the study.

The transcriptions of the videos were also conducted using HyperTRANSCRIBE. These transcriptions were much more difficult because they involved sign language, which I transcribed using ASL gloss, using all capital letters for signed utterances (Baker-Shenk & Cokeley, 1980). In addition, unlike the conversations between teachers and myself, which were obviously between two people, these videos captured teachers and



their interactions with several students. I also used HyperTRANSCRIBE as a database for all of the audio- and videotaped data and their completed transcriptions.

### **Coding and Analysis**

**Audiotape data.** During the original transcribing and subsequent readings and re-readings of the transcripts, I made several notes as to potential themes and statements of interest in relation to the research questions. I then began an initial list of coding categories (Bodgen & Biklen, 2007). As I developed the full list of codes, I used transcripts from each teacher to ensure consistency among these codes. I then re-read, coded and analyzed every audiotaped data source from each teacher (pre-intervention interviews, exit interviews, and all the collaborative meetings). I periodically returned to previously coded work to ensure that any new codes were applied to previous transcriptions and there had not been a drift in the codes. In total I identified 133 codes, including some specific to dialogic reading (adaptations with DHH students; frustrations with dialogic reading, and successes with dialogic reading), some concerning story signings (time for storysignings, purpose of storysignings, and student retellings/story signings) and others relating to problems that arose for teachers (attention, choosing books, and student difficulty with questions).

During this process, I used the qualitative software program HyperRESEARCH, which allowed me to view transcribed data and apply codes. I also added definitions to codes to ensure accuracy for their intended use. The software also allowed me to run reports, which showed me the frequency of codes, for individual teachers (which was very helpful in the within-case analysis) or any number of them. HyperRESEARCH was also very useful in that I could request to see all instances of one code, and the data across teachers would appear. This was especially useful during analysis across the cases. Analysis of the data was conducted based on the themes that emerged from these codes.

**Videotape data.** For the videotaped data, coding forms were developed that included features of dialogic reading (PEER and CROWD; Pearson Early Learning, 2006; see Appendix D) and additional categories of interactions previously identified in research as not facilitating conversation, such as labeling and pointing requests and the use of *yes/no* questions (Whitehurst, et al., 1988; see Appendix E). To refine these protocols, I piloted these observation forms in a class that was not participating in the research. In addition, I hired a former teacher of DHH students to help me further develop the coding forms with adaptations and new categories for use with our student population. At the beginning of my study, we together viewed videos of teachers to determine coding rules and definitions.

The selected videos were then transcribed. In accordance with previous research, the video data “. . . were coded for major categories of teacher behavior that are relevant to dialogic reading and were compared across the intervention. . .” (Whitehurst, Epstein, et al., 1994, p. 548). The protocol forms were used to tally targeted behaviors and progression of dialogic reading practices across the course of the study with individual teachers.

## **Issues of Quality**

### **Validity**

For qualitative measures, validity for the findings is supported through accuracy of the reported information, as seen through the lens of the researcher, the participants, and additional readers (Creswell & Miller, 2000). Accuracy can also be maintained and assured through the following strategies: triangulation of data, member checks, thick description, clarification of bias, presentation of negative or discrepant information, prolonged time in the field, and peer debriefings (Creswell, 2009, p. 191-192; also Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005 and Geertz, 1973). Each of these strategies was used to ensure the validity of my study.

For this study, the multiple sources of data were questionnaires, interviews, observations, transcripts of both audio and video data, and document review. These various sources of data were used for triangulation of themes, both within and across the cases. My prolonged time in the field (the study was ongoing for between three and five months with the different participants) afforded me the opportunity to provide a “rich, thick description” of the individual teachers and their practices (Creswell, 2009, p. 191; Geertz, 1973. See Chapter 4: Findings Within Cases).

Teachers were asked to participate in member checks, which involved reviewing major sections of the writing, both for accuracy of information as well as their thoughts and feedback on the analysis. I sent the following sections of writing to the teachers: the description of their school site, professional information, and classroom staff and students (from this chapter); the section on themselves in the within case analysis, which included a thick description of their baseline practices and implementation work; and the entire cross case analysis chapter. Three of the four teachers participated in these member checks. (Their comments were either written on a hard copy of the documents or inserted into the word document; therefore this data is not available in the appendix.)

Peer debriefings were another critical strategy for validity. This included individual professors as well as peers in research groups within my doctoral program, who reviewed my work and offered ongoing feedback. My own personal biases are presented in the upcoming section on the researcher’s role, and a presentation of discrepant information will be presented in the analysis chapters to offer countering theories.

### **Trustworthiness**

Trustworthiness or reliability in qualitative work comes from the consistency of the approach and the ability of another researcher to replicate the research (Creswell, 2009; Yin, 2003). This involves documenting the data collection, procedures, and steps involved in the study, which I have done above. In addition, I maintained a case study database of audio- and videotaped data and all corresponding transcripts in qualitative software, HyperTRANSCRIBE. Yin recommends maintaining a bibliography of documents (2003); I did this by compiling the sources of data each day I was in classrooms. An example of this form for one of the teachers, Erin, can be found in Appendix F.

Other procedures to ensure trustworthiness include checking transcripts for accuracy and making sure there has not been a change in the definition of codes (Creswell, 2009). Both of these were made much easier by the qualitative software

program. Transcripts were easily reviewed for accuracy with the HyperTRANSCRIBE program, and definitions of codes were entered into HyperRESEARCH for use with data analysis. Also, during data analysis, codes were revisited with data of the different teachers to ensure they were being used consistently.

Inter-rater agreement was also used to maintain reliability. I hired a former teacher of DHH students to help develop the coding forms for the story signings, in order to document teachers' use of dialogic reading practices. This involved determining coding rules and definitions, and creating examples for each code. I had planned to use two additional raters for inter-rater reliability with the videos, but this was not appropriate when the teachers experienced so many problems and were not able to implement the intervention with high levels of fidelity.

### **Researcher's Role and Resources**

As this research was conducted as a design-based study, my role was not a traditional one. Instead, I served as both "the professional developer and researcher throughout the study" (Orrill, 2001, p. 19). This dual role was compared to a musical conductor: "... while in the end, the teaching was only as good as the individual efforts puts forth by the teachers, my job was to know what to focus on and 'rehearse' more and what parts could wait for another day" (p. 20). Together teachers and I brainstormed ways to circumvent and alleviate problems that prevented them from implementing dialogic reading. Because I was observing their practices, I was afforded the opportunity to see multiple facets within the lessons. These were often invisible to teachers as they engaged in complex practices, which included interacting with students, managing behavior and participation, and implementing the goals of the lesson.

I believe my education, professional background, and interest and experience in teacher preparation make me uniquely qualified to conduct this research. For twelve years I taught at a school for DHH students, where I used American Sign Language (ASL) as the language of instruction. Both my bachelor's and master's degrees are in deaf education. Because my teacher preparation program did not supply adequate experiences in learning sign language, I began attending a sign language interpreter training program during my first year as a teacher; I now hold dual national certifications for sign language interpreting with the Registry of Interpreters for the Deaf.

This experience can also serve as a source of bias. In particular, I feel strongly that ASL should be the language of instruction with Deaf students. While I support the use of simultaneous speaking and signing with hard of hearing students *who benefit from this*, I believe the signs should be conceptually accurate and reflect the true meaning of the words, which is not what occurs in Signing Exact English. I also believe schools specifically for DHH students provide linguistic, communicative, and social access that is not available to those students within typical elementary schools.

### **Ethical Issues**

Ethical considerations are of vital importance in any research, but especially those conducted with children and/or vulnerable subjects. Although teachers were the focus of this study, their students will also be part of the research because of the interactional nature of teaching and this intervention in particular. The students were considered a

vulnerable population due to their age, their deafness, and their possible linguistic limitations.

The following types of consent were sought: Teacher Informed Consent, Parental Informed Consent for a Minor Child, and Minor Informed Assent. These voluntary consent forms described the research, the participant's role, elements of research risk, and issues of privacy, confidentiality, and anonymity (Sieber, 1998). Consent forms were provided in the native languages of parents as appropriate (Spanish and Russian); I hired professional interpreters to convert the English print documents to these languages.

Every attempt was made during the research to protect the privacy and interests of participants. I guaranteed them that no names or identifying personal information would be used in any published reports of the research; pseudonyms replaced real names of participants. The names and identifying information of schools and programs also will not be used in published reports. Classroom activities were videotaped, which could lead to a loss of privacy for the teachers and students. Teachers, parents, and students determined how those images could be used (for example, for research purposes only, for conference presentations, and/or for teacher education purposes).

The proposal for this research was submitted to and approved by The Office for the Protection of Human Subjects at the University of California, Berkeley.

### **Participants<sup>5</sup> and Sites**

All four teachers taught in the context of small classes (ranging from five to nine students) exclusively in classrooms for students who were deaf and hard of hearing. Two of the teachers taught in a school for deaf students, while the other two taught in special day classes for DHH students within typical elementary schools. Teacher participants were chosen for both convenience and their range of grades and teaching situations. All of the teachers volunteered to be part of the study. What follows is a description of each of the school sites and individual teachers, including their professional background, classroom staff and students. Table 1 displays descriptive and professional information in visual form for comparison across teachers.

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<sup>5</sup> Pseudonyms are used for all teacher and student participants in order to protect their privacy.

Table 1

*Descriptive and Professional Information on Teachers*

	<i>Erin</i>	<i>Rachel</i>	<i>Arielle</i>	<i>Meg</i>
<i>School Setting</i>	school for DHH students	school for DHH students	special day class for DHH students	special day class for DHH students
<i>Communication Mode(s)</i>	ASL	ASL	speech; simultaneous speech and signs	simultaneous speech and signs; ASL
<i>Grade</i>	1	2	2-3	4-5
<i>Students' Ages</i>	6-8	7-9	7-10	10-11
<i>Number of students</i>	7	6	9	5
<i>Years Teaching</i>	7	18	1	2
<i>Highest Degree</i>	Master's	Master's	Bachelor's	Bachelor's
<i>Degree Focus</i>	Deaf Education	Special Education & Early Childhood Education	Non-education field	Non-education field

**School for Deaf and Hard of Hearing Students: Erin and Rachel**

**School description.** Erin and Rachel worked at a day school for deaf and hard of hearing students<sup>6</sup> in a large metropolitan area in the northeastern United States. As opposed to a residential school for deaf students, where students stay in dorms during the school week, students at this school were bussed daily from various parts of the city and surrounding districts; some students spent over an hour each way in transit. Busses dropped students off at the cafeteria, where students socialized over breakfast until the school day began at 8:15. The school serviced approximately 220 students aged 3-21, where sign language was used as the language of the classroom. Fifty percent of the

<sup>6</sup> The “people first” language supported by the American Psychological Association (2010) is intended to respect and honor people first before their disability (*a child with autism* instead of *an autistic child*). However, as I am viewing deafness as a linguistic and cultural minority, I will use the terminology *deaf students* to represent this (Lane, 1992; Parasnis, 1996).

students were identified as African-American, 22% as White, and 21% Hispanic, and over 95% of these students received free or reduced lunch.

Elementary teachers, similar to their counterparts in hearing schools, were responsible for teaching all academic subjects, whereas the teachers in middle and high school had focal subjects. Grade level curriculum for each subject was the main resource, with supplemental materials utilized independently by each teacher. In the elementary grades, the average class size was seven students. The school day ended at 3:00, and an after school program was available to students eight years and older, with physical, academic and artistic options (for example, running, math, and art groups.)

In addition to the English Language Arts times teachers taught in their classrooms, other language and literacy focused learning occurred in Literature Class, Integrated Speech, and Reading-Go-Round. Literature class occurred in the library twice weekly for 30 minutes. During this time, the literature teacher (a former classroom teacher, not the librarian) conducted story signings (Read Alouds) that supported the ongoing curriculum work in the classroom. She also developed additional literacy activities to supplement the reading, for example transcribing students' stories, which they then illustrated and made into individual books.

Integrated Speech consisted of lessons conducted by the speech teacher (a former classroom teacher who was not credentialed as a speech therapist). In contrast to the times students were pulled from class for individual speech therapy according to their Individualized Education Plan goals, this block of time was intended to integrate the language and speech goals of individual therapy into a group lesson within the classroom. The speech teacher coordinated these lessons with the classroom teachers to provide consistency with the classroom curriculum and ongoing work with students.

Reading-Go-Round occurred for 25 minutes each Friday morning. Staff from throughout the school rotated through classrooms to sign stories to the students, with books chosen primarily by the rotating reader. The theory behind this activity was to provide students with a variety of reading and signing styles and the opportunity to engage with and learn from various adults in the school.

Students also participated in a thirty-minute class per week on American Sign Language (ASL), taught by a Deaf instructor. This class focused on expressive and receptive use of ASL, with emphasis on grammatical and cultural features of the language, such as the use of handshapes and classifiers and ASL poetry, respectively.

There were also a variety of clinical and instructional support staff available at the school, and all were capable of communicating with students using sign language. Clinical support included counselors, psychologists, occupational and physical therapists, audiologists, and speech therapists. Instructional support included librarians, art teachers, and curriculum and ASL/English support teachers. In addition, once a month the students were sent home early to afford the teachers time for professional development. The school had within the past few years been involved with the Center for ASL/English Bilingual Education and Research (CAEBER). This center is based at Gallaudet University, the only liberal arts college for deaf students in the world. CAEBER conducted two years of professional development for teachers at this school on bilingual curriculum, assessment, and instructional strategies using ASL and English. One of the teachers in my study, Erin, had participated in this professional development, which occurred once a week for two years, and was the equivalent of four graduate courses. The

other teacher, Rachel, was unable to commit to the work due to personal obligations. During the course of my study, both teachers were involved in a kindergarten-second grade literacy initiative on incorporating sign language into the four aspects of literacy: reading, writing, listening (receptive sign language skills), and speaking (expressive sign language skills). Professional development in these areas occurred every two months, followed up with required lessons and observations of the particular topic on which they had received training.

This school also had several supports in place for families, including the following: family sign language courses, the Shared Reading Project, and Deaf Mentoring. The Shared Reading Project was developed to teach parents how to read books through sign language to their young DHH child (Schleper, 1996). A Deaf adult visited the home weekly to help parents convey a story using ASL. In addition, the families were loaned copies of one new book per week, props for the story, and a videotape of a Deaf adult signing the story. The Deaf Mentoring Program was intended to provide linguistic and cultural support and learning to families at their homes during times and activities of their choosing. However, both the Shared Reading Project and Deaf Mentoring Program were only offered to students and families in the Early Intervention Program; services were not continued into the elementary years.

**Erin: 1<sup>st</sup> grade.** Erin taught a first grade class, with seven students aged six to eight. She received both a bachelor's degree in Deaf Studies and master's in Deaf Education from a private northeastern university, and held state certification for deaf education. She learned American Sign Language in her program; there was not a prerequisite level of ASL that needed to be demonstrated to enter the program, in fact, most of the students did not know sign language upon entering the program, but there was a required level of skill necessary to graduate from the program. Erin had been signing for thirteen years at the time of the study and demonstrated advanced skills in ASL.

During her graduate studies Erin worked as a paraprofessional in a Deaf preschool and did her student teaching there as well. About her teacher education, Erin commented that she would have benefitted from more research-based approaches to teaching deaf students. She felt that most of the strategies presented were appropriate for hearing students, but there was not sufficient discussion and education on the specific needs of deaf learners. She also indicated that both her internship and student teaching experiences had lacked a model of literacy teaching and learning. While she was engaged with language and literacy activities with the students during these field placements, she did not see anyone teach a reading lesson to Deaf students that involved word reading and comprehension; her first experience with this kind of reading lesson was when she began work as a teacher. Erin stated that during her first year teaching she relied heavily for assistance with her reading lessons from the school's curriculum support teacher and her mentor teacher. (The school assigns a more experienced teacher to mentor all first year teachers).

Erin had taught for a total of seven years, from kindergarten through fifth grade. She had also supervised two student teachers and served as a mentor teacher to a first year teacher. Erin commented that she was very happy at the school. She described the

environment as very supportive and friendly, and felt her supervisor in particular was a great resource for her.

The adjoining first grade class was composed of students who could rely on and use spoken English; therefore the linguistic and communicative needs of these students was very different from those of Erin's students. As a result, Erin and the other first grade teacher taught their separate homeroom classes for English Language Arts; they did team teach for math and science lessons and regrouped the students for these classes.

Erin had a Deaf teacher aide, Deborah, who had worked at the school for 11 years. In addition to the teacher aide there were two other paraprofessionals in the classroom. One supported a student and his behavioral needs, and was hired through an outside agency, so she was not technically a staff member of the school. The other was an older Deaf woman, who assisted a student with additional health and mobility issues.

***Students in Erin's class.*** There were seven students in Erin's first grade classroom with severe to profound bilateral hearing loss, which necessitated communication through sign language. Of those seven, I received parental consent and student assent from four students to participate in my study. Three were girls, two African American and one Caucasian. The one boy whose parents signed the consent form did not sign the media release form, so he was not included in any videotaped data.

Desiree was eight years old, and although she had a cochlear implant<sup>7</sup> she did not use it because it offered her "limited auditory benefit" (Individualized Education Plan). Her current Individualized Education Plan (IEP) included a language goal of using a subject, verb, and object in her expressive language, and stated that her communication was average as compared to her class peers. Other goals concerned stories signed in ASL, specifically focusing on her attention, responding to questions, and expressing opinions. Desiree's parents used basic signs at home but were not proficient users of ASL. Desiree's siblings were encouraged to use sign language with her, but mostly used gestures and pointing.

Jazlyn, an eight year old who used two hearing aids inconsistently, reportedly began the school year with very limited communication, which consisted mainly of smiling and pointing, but Erin was pleased with the progress she was making. A current IEP language goal was that she would use a subject, verb, and descriptor within a sentence (an example was offered within the document: PLATE PINK ME WANT or "I

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<sup>7</sup> A cochlear implant is a device surgically placed within the inner ear in an attempt to afford the user hearing. Electrodes are placed within the cochlea of the inner ear, destroying auditory nerve cells, and directly stimulating the auditory nerve. A magnetized receiver is placed under the skin, which later connects to an external transmitter, held to the head by the magnet. A microphone is worn on an earpiece and a processor is worn on a belt or pocket (Lane, Hoffmeister, & Bahan, 1996). After surgery, intensive therapy is necessary as sounds are electrically mapped onto the field of the implant, and the child requires training to hear the new sounds and use them for speech.

The Deaf community raises concerns over cochlear implants for several reasons. One is that they view themselves as members of a thriving linguistic and cultural minority, and not as people with a disability. In addition, there are ethical considerations in parents deciding to implant young children without their consent and/or before the child is able to demonstrate a linguistic preference and ability for communication modality (signs or speech) (Ladd, 2003; Lane, 1992).



want the pink plate”). Jazlyn could answer simple *yes/no* questions, but had difficulty in clarifying her thoughts. Her low level of language often required staff or other students to figure out what exactly she was communicating, by filling in missing pieces. For example, after Erin had been out one day, Jazlyn excitedly signed to her, “I-C FLY!” Erin did not understand what she meant, and asked her for more information. Jazlyn repeated the comment. It took Erin awhile to realize that Jazlyn was telling her I had flown in for an observation: “J-A-C-I FLY.” Jazlyn also required extra time to process questions, which Erin often restated. At the time Jazlyn’s IEP had been written, when she was seven years old, she was not consistently writing her own name correctly, could rote count only to six, and could count objects to ten. Jazlyn’s mother said they used signs at home, but that she often asked Jazlyn to slow down and repeat her signs. Jazlyn’s mother also reported that she read books with Jazlyn less than two times per week for between five and ten minutes, using gestures and her voice, but no signs during this activity.

Angela turned seven years old during one of my first days of observation. She had received two cochlear implants when in preschool, but these were not found to be effective. Her parents then placed her at this school and began taking sign language courses. They reported using ASL at home, and said they sometimes asked Angela to repeat or clarify her communication if they did not understand. Erin noted the difference in Angela’s capabilities as opposed to her classroom peers because of this parental involvement and experience with sign language. She also stated that Angela incorporated new vocabulary into her expressive sign language. Her IEP goals included answering *where*, *when*, and *why* questions and using one to two ASL sentences to make predictions about stories.

**Rachel: 2<sup>nd</sup> grade.** Rachel worked at the same school for deaf students as Erin. She taught six students in her second grade classroom. With 26 years of teaching experience, her state certification was in special education and her degrees were in early childhood and special education. Her prior experience included the following: teaching in daycare and preschool settings, teaching middle school special education, and directing an early childhood program for children with cognitive and physical disabilities.

She had been looking for a change in her career, and after meeting with a supervisor from the school, was hired; she had been working as a teacher there for nine years at the time of the study. She did not have a deaf education background and did not know American Sign Language at the time she was hired. In addition to the mentor teacher all new teachers at the school receive, she also was assigned a mentor to help with her ASL skills. She acknowledged being overwhelmed by learning the language while being responsible to use it to communicate with and instruct her students. As would be expected, she was met with strong criticism over her hiring from some staff members who were concerned for the language development and language models available to students. She, however, had not taken the job from a capable signer; unfortunately there had been a lack of qualified teachers for the position, and her previous experience with education had made her the strongest candidate. Although Rachel acknowledged the concerns about her signing skills, she felt the negative attitude expressed to her, about her, added further stress to an already uncomfortable situation. She worked with her ASL mentor, as well as other Deaf staff members, and participated in sign language classes. After two years, she said she was comfortable signing with her students, but that she still

sometimes did pause to consider her signing when reading books or teaching a lesson to students.

Rachel shared a large classroom with another second grade teacher whose class was composed of five students who had cognitive disabilities. The two classes teamed for most of the subjects. This other teacher, who was hearing, had a full time classroom teacher aide, and these three staff members shared teaching responsibilities for English Language Arts during the mornings. Rachel shared a classroom aide, Wendy, with another teacher. Wendy joined Rachel's class for the afternoons daily, but was with the other class during the morning activities. Wendy was hearing, but had a deaf son in the high school program. She had been an active parent when he was in the preschool program, and worked for the school in several different capacities from the time he began full day kindergarten.

***Students in Rachel's class.*** Although all 11 students in Rachel's team were given consent forms, only one student returned the parental consent form and completed a student assent form. He was a nine-year old African American boy within the team, but was not in Rachel's homeroom class. This student was working on a pre-kindergarten level with English Language Arts. Because I received only one parental consent form the videotape of the lessons focused on Rachel only. As I was interested in how she interacted with the students, I tried to dictate what the students were signing into the videocamera. This, however, distracted Rachel during the lesson and added to her stress, so I did not continue with this.

### **Special Day Classes within Typical Elementary Schools: Arielle and Meg Arielle.**

***Description of Arielle's school.*** Arielle taught at a suburban neighborhood elementary school in Northern California with 465 students, where the majority were African American and Latino. The school served students from kindergarten through sixth grade, with the academic day beginning at 7:55 and ending at 2:35. Once a week the students went home early to afford the teachers professional development and planning time. Because a large percentage of the students in the school came from non-English speaking homes, 45 minutes a day were set aside in each classroom to work on developing oral language proficiency in English, with students supposed to be talking at least 50% of that time. Students had twenty minutes of recess and fifty minutes for lunch daily. Twice a week Arielle's students had an hour of Physical Education and Library. These teachers did not know or use sign language. The classroom aide, Shelley, accompanied them to these classes, but was deaf herself and therefore communication between her and the teachers was limited; she assisted mostly with maintaining appropriate behavior.

Arielle taught in a self-contained classroom for DHH students. Technically, she was the teacher for kindergarten through third grade, but her nine students were in grades two and three. Another teacher in the school, Lucy, taught a class of fourth through sixth grade DHH students. At the beginning of the school year, these two classes were on different lunch and recess schedules, so the DHH students never had the opportunity to socialize. By the spring semester, Arielle had convinced the principal that the students in both classes should be able to interact more and their schedules were changed to overlap.

*Arielle: 2<sup>nd</sup> and 3<sup>rd</sup> grades.* Arielle was a first year teacher and was still a student in a teacher preparation program. She had applied for the job of classroom teacher aide, but was offered the position of teacher when no one applied for the job. She had very limited knowledge and coursework in education at the time, and said of her first year teaching, “This is my student teaching!” (Meeting, December 2, 2009). Arielle had a deaf child with a cochlear implant, who could rely on hearing and speech for communication and did not rely on sign language. After raising her children, Arielle obtained her bachelor’s degree in an unrelated field and then enrolled in graduate school to obtain her master’s degree and teaching credential with deaf and hard of hearing students. At the time of my study, she was taking night classes twice weekly. The semester prior to my study, I was her college supervisor, so we already had established a relationship of supportive feedback. I began baseline observations for the purposes of my study (focused only on reading and literacy activities, not the general observations I had done across subjects as before) at end of December, after the college semester was over. The training and implementation work began the following January.

Besides Arielle’s limited coursework and knowledge with education, she also did not feel secure in her sign language abilities, which were at a beginning level. Her program offered courses in ASL, but only during the day; obviously she could not take those classes as she was teaching. Arielle, who had been born outside the United States and learned English as her second language in adolescence, had taken several courses in ASL, but wanted to learn in a more naturalistic setting. She investigated private tutors, but was too busy with her teaching, college courses, and family to take that on as well.

Arielle was concerned for the organization of her classroom, which was practically empty at the beginning of the school year. She spent several hundred dollars of her own money buying journals, folders, markers and other student materials. She also supplied her own desk and computer for the classroom. She brought books from home and bought them at garage sales so she had an adequate classroom book selection. She also borrowed books from her local library, but was hesitant about allowing students to take them home, as she was afraid they would not be returned. In contrast, she did not mind if students kept books she had brought from home, because she wanted them to experience books outside of the classroom. In December, Arielle moved to a new classroom within the school building; the previous room had been in a trailer behind the school. In both classrooms, Arielle changed the layout in repeated attempts for more organization and better space for teaching and learning. I was unsure if the students found this confusing, unsettling, or exciting. I might have written that she should have spent more time on the actual curriculum to get organized instead of focusing on the physical environment, except that she did not have curriculum guides and supplemental materials for the Houghton-Mifflin series until December. There were several trainings for new teachers that Arielle did find helpful. However, the trainings occurred during the school day, so she was away from her class. She relayed that it was still difficult for her to develop lesson plans and activities for herself, but that it was much more challenging to write these for another person to understand and implement.

During my time as her supervisor, I helped Arielle develop a schedule for the academic week. However, she was inconsistent with instructional plans and the schedule. This was partly due to issues with her classroom teacher aide. She began the school year with a classroom aide, Shelley, who was deaf but did not interact much with the students;

Arielle did not feel comfortable asking her to lead academic groups. Shelley left the school in February for a new position, and was replaced with a variety of substitute aides, most of whom did not know sign language. In both of these situations, with the regular classroom aide, Shelley, and the substitutes, Arielle taught all of the lessons, so students were either in full group sessions or working independently while she worked one-on-one with another student. A new teacher aide was hired in late spring who did know sign language.

Many of the challenges Arielle experienced (no classroom materials or curriculum guides, issues with the classroom teacher aide, and a range of communication needs by students) would have been very difficult for an experienced teacher, let alone a first year teacher with limited education about teaching and beginning sign language skills. Arielle was overwhelmed by these responsibilities, but exhibited obvious effort to learn more to address the needs of her students. Lucy, who taught the other class for DHH students in the school, was assigned to be Arielle's mentor teacher. However, Lucy did not make herself available much for support with teaching or logistical issues, such as writing report cards and conducting Individualized Education Plan (IEP) meetings. Arielle also felt there was a difference in philosophy of communication between them. Arielle had taken ASL classes and worked to help the students understand multiple meanings of English words and their conceptual signs, whereas Lucy was a supporter of Signing Exact English (SEE).

***Students in Arielle's class.*** Arielle had nine students, five of whom were boys. Six of these students were in the second grade, and three were in third grade. Several of their families spoke Spanish as the home language, and one spoke Cantonese. There was a large range of communication and language needs in this classroom. Several of the students used hearing aids or cochlear implants successfully, and used speech as their main mode of communication. However, several other students did not hear well enough to use speech as their main means to receive or express communication and relied on sign language. Therefore, Arielle was forced to sign and speak simultaneously. Research has shown that in these situations, teachers produce an accurate comment in spoken English but do not produce all the necessary signs to make the visual message comprehensible (Johnson, Liddell, & Erting, 1989). This was the situation for Arielle, not only because she was using the two language forms, but also because she did not have a large sign vocabulary. Because of the wide range in language and communication for students, this was the most difficult language environment of the four classrooms in my study.

The students who used speech as their main communication mode were mainstreamed for other classes. Arielle felt pressure to stay on the pacing level so these students would understand when they joined the other class, but she remarked that they were often missing necessary concepts and skills. In addition, problems arose with these students in the mainstreamed classes that required Arielle's intervention. For example, she asked teachers to make adjustments for her students needs, including having her students sit near the front, asking teachers to not turn their backs when speaking, and offering the students a permanent seat. These issues seem mild, but several of Arielle's students were sent back to her class because the teacher did not want to accommodate them on these issues. The professionalism sorely lacking by these other teachers put additional stress and responsibility on Arielle. In fact, Arielle started sending her long-term substitute aide with the students to the mainstreamed class instructing her to "... be

my eyes out in the mainstream” (Meeting, March 2, 2010), and hoping this would make the adjustment easier for the teacher and students in the mainstreamed class. However, this meant that Arielle was then alone teaching math and again could not separate the students into smaller groups based on grades and math levels.

I received parental consent and student assent from six of Arielle’s students (four of these students appear in a description of a lesson in the next chapter, so they are described here). Two of these students, Mark and Jorge, were in the second grade and very much functioned as hearing students. Jorge did not know sign language and told Arielle that he did not want to learn or use it because he could hear. He had two cochlear implants and relied on this auditory stimulation and speech for communication. Jorge’s family also spoke Spanish in the home, but he was not conversant in the language. He told Arielle that his father took him often to the library to get books.

Mark used hearing aids successfully. His family also spoke Spanish in the home, and he was able to converse in that language. Mark commented that he loved when Arielle read stories in class because his parents did not read to him at home. His mother reported that she read to him less than two times per week. Both Mark and Jorge were on grade level with reading and other subjects and were mainstreamed into typical classrooms for part of the school day. Because they could access sound and communicate using speech, they did not experience language delays. Selena, an eight-year old second grader, and Gabriel, a ten-year old third grader, both experienced language delays subsequent to their hearing loss. They each relied on a combination of signs and speech for purposes of communication. Both of their Individualized Education Plans included goals for vocabulary development and reading comprehension.

### **Meg.**

**Description of Meg’s school.** Meg taught in a self-contained classroom for DHH students within a typical neighborhood elementary school. The school was located in a suburban/rural area in Northern California and served 600 students from kindergarten through grade six. Instruction began at 8:20 and students were dismissed at 2:15. The largest majority of students were White (33%), while 22% identified as Hispanic/Latino, 19% Filipino, 15% African American, and 9% Asian. Only 13% of the students were considered disadvantaged in socio-economic status, 9% were classified as English Language Learners, and 6% had identified disabilities.

Most of the hearing students walked to school; however, this was one of two elementary schools in the district with a DHH program, so Meg’s students were bussed from across the area. In particular, this school’s DHH program was for students in the upper elementary grades, fourth to sixth. Another school, 25 miles away, was designated as the district’s site for the DHH program for the lower elementary classes, kindergarten through third grade. Meg was one of two teachers for DHH students within her school. She taught students in fourth and fifth grade, and a teacher in an adjoining classroom taught the sixth graders. The junior high school and high school with DHH programs for the district were both within a few miles of this elementary school.

**Meg: 4<sup>th</sup> and 5<sup>th</sup> grades.** Meg was a second year teacher and taught students in the fourth and fifth grades, aged 9-11. She received a bachelor’s degree in an unrelated field, and upon graduation was unclear about her career path. She recalled serving as a peer mentor in her elementary years in a deaf and hard of hearing classroom; in fact, many of

the friendships she made during that time were still maintained. She began taking coursework at a state university to earn both her teaching credential and master's degree in Education of the Deaf/Hard of Hearing. While she took courses, she also began working as a substitute in DHH and special education classes. During the summer for a few years, Meg traveled with a group to Asia to teach American Sign Language to deaf people there; she commented that this experience provided her a more in-depth understanding of ASL. Because of her experience and skill with ASL, she was assessed by a Deaf ASL instructor and subsequently was waived out of sign language courses by her college. Meg also commented that the few sign language courses offered by the college were only offered during the school day, so that working teachers, including several of her classmates, could not participate and were left to find community courses themselves.

At the time of my study, Meg had only just completed her credential requirements, and was still taking coursework for completion of her master's degree. Despite the fact that she was only a second year teacher, she was considered an "expert" in her field within her school. She admitted feeling overwhelmed by this, as she felt she still had much to learn. Professional development for the school was, as expected, geared towards hearing students, and there was much adaptation necessary for application to her students. Prior to the start of the school year, all teachers in the school participated in three days of training for new technology and a new math curriculum adoption. Meg reported that she depended more on her DHH supervisor than the school principal, who was unfamiliar with the linguistic and academic needs of her students. Meg commented repeatedly about how her supervisor, Janette, supported her. Janette served teachers throughout the district, observed in classrooms, attended IEP meetings, and developed yearly professional goals with teachers. In addition, she purchased supplemental materials for classroom use and informed teachers of professional development opportunities.

Although Janette had taught DHH students during the time of Total Communication—when teachers were encouraged to sign and talk simultaneously—Meg felt that Janette generally supported her use of ASL within the classroom. However, in a recent discussion of future goals, Janette asked Meg to work on "implementing oral and auditory skills within the daily curriculum." Meg felt that these were inappropriate goals for the communicative needs of her students, and instead succeeded in changing the goal to improve her understanding and use of assistive technology, such as FM systems<sup>8</sup> and cochlear implants.

Meg had a teacher aide/interpreter, Sally, who had worked for the district for several years. Sally did not have certification as an interpreter for ASL; however, she did have an Educational Interpreting Certificate, which does not assess or require fluency in ASL. She served as an interpreter when the students left Meg's classroom, for example during library and physical education classes. Meg did not feel comfortable using Sally for academic teaching during class, and instead asked for her assistance in other ways,

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<sup>8</sup>FM systems are used to improve a students' listening and auditory input in the classroom. The teacher wears a microphone that sends a signal to a transmitter, typically attached to the students' hearing aids (Hearing Evaluation Services of Buffalo, Inc.).

such as preparing materials. A speech teacher, who had limited sign language skills, pulled the students from class weekly for speech therapy.

***Students in Meg's class.*** There were five students in Meg's classroom. Although all used hearing aids and/or cochlear implants, they did not have enough access to sound to use speech alone for communication purposes. She therefore used a combination of speech with signs or ASL within the classroom. The students in the adjoining sixth grade class were more auditory learners and speakers, and did not rely as much on sign language. One student from this class, Yasminah, joined Meg's for most of the day for both communicative and academic purposes. Meg and the sixth grade teacher also took their classes on field trips together to a school for DHH students at least once per year.

All of these students began their education at a different elementary school within the district, which served DHH students from preschool through the third grade. Meg commented that the kindergarten-first grade teacher was excellent, but that the school had been unable to fill the teaching position for the second-third grade class for several years. Subsequently, during their second and third grade years, these students had been taught by a variety of substitute teachers who did not know sign language and did not know the particular communicative and academic needs of deaf students. Interpreters were sometimes hired to provide communication between these teachers and the students.

Meg was working on second grade standards with her students, but they were tested on fourth and fifth grade standards. Meg shared how difficult it was to give the standardized tests to students, which did not reflect their growth. She related the frustration and stress students experienced with the tests, and how she simply asked them to do their best. Meg used only informal assessments in her class, as she felt the students' ability with English confounded the results of any formal tests.

Meg commented that the parents of her students seemed more focused on their speech and hearing abilities instead of academic content and knowledge, with one parent continually asking if her child's hearing was improving. This communicative mismatch resulted in serious language delays and knowledge gaps. Meg offered an example from her class:

And I was telling them [about] the year I was born and was asking them the year they were born. None of them knew. Five out of my five did not know what year they were born in. Three out of the five didn't know their age. Didn't know how old they were . . . Like, the things that they don't come to school with at 10 and 11, they don't know what year they were born or how old they were? (Meeting, January 7, 2010)

I received parental consent and student assent from five students, four of the students in Meg's class, as well as the sixth grade student who joined Meg for most of the day. Two of these students, Garrett and Mona, were in the fourth grade and were reading at a second grade level. Garrett had a severe-profound hearing loss and, although he used a cochlear implant, he relied on ASL for communication. His IEP listed goals for expanding his vocabulary for expressive communication and reading. Garrett had difficulty answering questions, especially *how* and *why* questions. Meg reported he needed repetition to assist his answering of questions, especially about things he had read independently. Mona was ten years old and had a profound hearing loss. She wore two

hearing aids and benefitted from these, but relied on sign language as her main means of communication.

Naseer and Aaron were in the fifth grade and both of their families spoke a language other than English in the home, Arabic and Tagalog, respectively. Naseer had a severe to profound hearing loss and used two hearing aids and an FM system to amplify Meg's voice during lessons. He was reading at an early second grade level. IEP goals included identifying the title, character, and settings of books and retelling their stories. Meg reported that his parents used basic signs to communicate with him, but were attempting to teach him to read and write Arabic.

Aaron also used hearing aids and an FM system, and although his speech was understandable by others, he had recently begun uses signs only, without his voice, for expressive communication. He was reading independently at a mid-second grade level, and Meg commented that his interest in reading had greatly improved over the year, along with his skills. His mother reported that she read with him daily, but used only her voice and no signs for this activity. Meg commented that when Aaron's father had observed the class before a meeting, he said, "I didn't even know Aaron knew that sign language stuff!" (Personal communication, January 11, 2011).

Yasminah was eleven years old and in the sixth grade class, but she joined Meg's for most of the day for communicative and academic purposes. Yasminah struggled to answer questions, especially about text she had read independently. An IEP goal was in place to improve her ability to answer *wh*-word questions. Yasminah had a deaf sibling and her family spoke Arabic in the home. Her mother reported that she read to Yasminah daily for 15 to 20 minutes. However, she also added that she was uncomfortable with sign language for communication and for reading stories. Her parents were concerned that despite having a cochlear implant for seven years, her speech was still unintelligible. Yasminah's parents signed the media release form but did not want her on video, so she was not included in much of the study data.

### **Gaining Access**

Gaining access to schools and classrooms for the study was a challenge, especially considering its intensive and collaborative nature. When gaining access to a local DHH school was delayed, I reached out to a professional contact with the school for DHH students that did participate in my study. This site was chosen for convenience of access. However, this school was also on the opposite coast from where I was located, and required flights to and from the site for data collection. After my research request was approved, the supervisor of the elementary school told the teachers about my study; Erin and Rachel showed interest. Because of my professional experience with the school, I had known Rachel previously, but Erin was only an acquaintance.

I had been Arielle's college supervisor the fall semester before my research began, and she was interested to be a part of the study. Because of our previous relationship, which affected the study, as well as other reasons, I did not use Arielle as a focal teacher for analysis. Meg was the only teacher I had no contact with prior to the study. Her professor from her credential and master's DHH program suggested I contact her for participation. I met with the principal from Arielle's school and Meg's supervisor and principal, to explain the purpose and methods of the study, and they offered approval.



### **Time in the Field and Arrangements for Meetings**

I conducted the study at the school for DHH students over a period of three months (February through April) spending seven, six, and four days in classrooms on those visits. Two other days had been planned but were cancelled, one due to snow, and another to an all day school event, which was scheduled after my visit was already planned and my plane ticket bought. Two fire drills interrupted my observations. Erin was absent one of these scheduled days, and Rachel was absent for two due to illness. Another day Rachel was very upset about a personal issue, so out of respect I did not videotape her on that day, since she had previously commented that the videotaping was stressful for her.

I conducted the training and part of the exit interview with Erin and Rachel together, but all other meetings were held separately. The meetings were planned for a time that was convenient for the teacher. Erin and Rachel both offered their mid-day preparation times, lunch breaks, and afternoons to me for our meetings.

With Arielle and Meg, the study work began in late December and continued through the beginning of May. These local schools made scheduling easier. At the beginning of the study I was in their classrooms one to three times per week. Follow up visits occurred one-two times per week and were obviously scheduled around my visits to the school on the east coast and school holidays and breaks.

Arielle offered her mid-day preparation times and lunch breaks for our work together. A few times we also met after her school day had ended. It was most convenient for Meg to meet before the school day started, so we met at 7:00 am. We were often interrupted by her students who arrived early and preferred to be in the classroom instead of the school's common area. If we did not complete everything we needed to within the morning time, Meg was very accommodating, finding time during her preparation or lunch times to work with me more. Of all the teachers in my study, I had the most meetings with Meg, for a total of 14 meetings throughout the five months of our work together. Table 2 displays the study details for the participating teachers.

Table 2

*Study Information on Teachers*

	<i>Erin</i>	<i>Rachel</i>	<i>Arielle</i>	<i>Meg</i>
<i>Beginning/end Dates of Involvement</i>	February 2010-April 2010	February 2010-April 2010	Dec. 2009-April 2010	Dec. 2009-May 2010
<i>Total Number of Observation Days</i>	16	15	16	18
<i>Total Number of Audiotaped Meetings</i>	8	7	14	14
<i>Total Number of Minutes/Hours in Meetings</i>	296 min./ 4.9 hrs	257 min./ 4.3 hrs	349 min./ 5.8 hrs	577 min./ 9.6 hrs
<i>Total Number of Videotaped Story Signings and/or Reading Lessons</i>	17	11	9	18

**Summary of Research Design and Methods**

This study was undertaken to investigate a dialogic reading intervention, for the purposes of addressing the unique needs of deaf and hard of hearing (DHH) students in regards to language and literacy. I used a hybrid of case study and design study methods to address the research questions, which investigated the implementation by teachers and adaptations for the student population. The timeline of the study began with baseline interviews and observations, then training in dialogic reading practices, and continued with ongoing implementation work with dialogic reading and to identify impediments and adaptations. Data sources included videotapes of classroom lessons and audiotaped meetings with teachers, which served as the main data source for the study. All of the audiotaped meetings with teachers and selected videotapes of classroom practices were transcribed and coded. The meetings were then analyzed according to themes, and lessons were analyzed for the use of dialogic reading practices. Qualitative software programs were used for the purposes of transcription and coding. In addition, these programs served as a database for the original, transcribed, and coded data.

Validity for the findings was supported through accuracy of the reported information, which was maintained and assured through a variety of strategies, including triangulation of data, member checks, thick description, clarification of bias, presentation

of negative or discrepant information, prolonged time in the field, and peer debriefings (Creswell, 2009, p. 191-192; also Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005 and Geertz, 1973). The trustworthiness for this study comes from the consistency of the approach and documentation of procedures involved (Creswell, 2009; Yin, 2003).

Of the four teacher participants, two taught in a school exclusively for DHH students, where American Sign Language was used as the language of instruction. The other two teachers taught special day classes for DHH students located within typical elementary schools. Various forms of communication were used in those classrooms, including speech only, American Sign Language, Signing Exact English, and simultaneous speech and signs. The participating classrooms included first through fifth grades and ranged from five to nine students.

## CHAPTER 4: FINDINGS WITHIN CASES

Previous research on dialogic reading, conducted with disadvantaged hearing preschoolers, resulted in benefits to students' expressive language (Crain-Thoreson & Dale, 1999; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999; and Whitehurst, Arnold, et al., 1994). I undertook this study because I believed this practice could address the unique language and literacy needs of deaf and hard of hearing (DHH) students. However, I did not know the variables that would need to be in place for this population, nor did I know the aspects of the practice that would interfere with both fidelity and sustainability for teachers. The prior research had found three impediments to the sustainability of dialogic reading in classrooms, which were teacher time for small groups, a difference in philosophy (developmental learning versus instruction), and the effort required by teachers (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994). Because of my own experience as a teacher of DHH students, I did not anticipate that the first two issues would be problematic for my study, and felt dialogic reading—and supplemental literacy activities—could be integrated into regularly scheduled times for reading to students (read alouds/story signings) and would not be an additional burden on the teachers. Nevertheless, all three of the previous impediments posed problems for the participating teachers; their ability to implement dialogic reading practices was also hindered by the additional adaptations that were necessary with DHH students. I hypothesized that these impediments resulted from not only a knowledge to practice gap, but also from a disconnect or difficulty in implementing the pedagogy. Therefore, I aimed to identify features that hindered abilities of teachers to implement and maintain dialogic reading practices, as well as to brainstorm with them ways to address those issues within this population of students.

Because of the difficulties experienced by the four teacher participants, none of them integrated the intervention into their practices with the fidelity that I had expected. Although I conducted student assessments (pre- and post-testing) to have a measure of teachers' efforts on student performance, it was not appropriate to use the student data in this way. My study then focused much more on the complexities of pedagogy and the difficulties experienced by teachers during the implementation process. Consequently, this research was undertaken to specifically examine the following questions: What are the adaptations necessary to conduct dialogic reading with DHH students? What impedes implementation and sustainability of this practice? What can be altered or added to assist implementation?

This current chapter details the salient issues of individual teachers as they undertook the work of the study. In addition, it serves as an introduction to themes across teachers and highlights what must be taken into account for success with dialogic reading practices. Recurring issues were examined and subsequently analyzed to identify obstacles to implementation and necessary adaptations with DHH students, which will be further elucidated across grades and school contexts within the next chapter.

### Teacher Participants<sup>9</sup>

Four elementary teachers participated in this study. They all taught in the context of small classrooms with deaf and hard of hearing students but differed in their grades, languages, and sites. Two teachers, Erin and Rachel, taught at a school for deaf and hard of hearing students, which served 225 students from preschool through age 21 and was in a large metropolitan area in the northeastern United States. American Sign Language (ASL) was used as the language of instruction. Erin taught a class of seven first grade students, and Rachel taught a class of six second-graders. The other two teachers, Arielle and Meg, worked at separate elementary schools in Northern California, teaching special day classes for deaf and hard of hearing students. Arielle taught nine students who were in the second and third grades, and Meg taught five students who were in the fourth and fifth grades. Both of their schools encouraged the use of Signed Exact English (SEE) as a communication method, which used signs to accompany spoken English.

For the purposes of analysis and for a variety of reasons, I focused on two teachers, Erin and Meg, more thoroughly than the others. I felt both of these teachers very much attempted to integrate dialogic reading practices into their teaching. Erin's attempts were very clear, but—more important for my study—her obstacles were as well. On the other hand, Meg was the most successful in implementing the practices into her teaching. In addition, Erin was an experienced teacher, whereas Meg had only been teaching for two years. Moreover, they taught in different environments: Erin taught at the school for deaf and hard of hearing students while Meg taught in a special day class within a typical neighborhood elementary school.

In contrast, there were also good reasons not to focus on Rachel and Arielle. Rachel had a few absences because of illnesses, and the videotaping of lessons caused her undue stress. For these reasons, I did not have as much videotape data to rely upon for analysis. Arielle's situation was very complicated. She was a first year teacher who had not yet completed her teacher training; she expressed feelings of being overwhelmed by her responsibilities, so her focus was not on implementing dialogic reading. Her sign language skills were also at a beginning level. Because I had served as her college supervisor in a previous semester, we were accustomed to discussing a variety of classroom topics and subjects. I found it difficult to keep our discussions to only the language and literacy focus of my study as she asked for assistance with several aspects of her teaching, and was used to relying on me for help in these areas.

The purpose of this chapter is to describe and situate each of the four teacher participants within their classroom environment, to describe their pedagogical style and practices before the study, and to introduce issues that arose for each teacher during implementation. For the purposes of my study, I wanted to observe each teacher's practices around literacy before the implementation work began. This was necessary to identify what, if any, aspects of dialogic reading they were already utilizing, and to identify if and how they made connections between the ASL of signed stories and the English text with their students. Knowing these aspects of their teaching allowed me to cater the implementation to their pedagogical needs as well as to the academic needs of their students. Describing these baseline practices here is necessary in order to then compare those practices with what occurred during the implementation of the intervention. For each teacher, I describe her main concerns for students and how she

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<sup>9</sup> Pseudonyms are used for all teacher and student participants.

organized her schedule for language and literacy activities. I then take a more in-depth look at the approaches she used to read books to students, enact reading lessons, and the problems that arose around implementation.

After the training in dialogic reading, each teacher and I discussed her concerns and goals for her students, and how those mapped onto my objectives for the study. We then collaboratively agreed on specific focal areas for the course of the study. Naturally, the individual teachers each had separate areas of focus and struggles with the implementation, which I detail here. Describing the difficulties of the teachers is not intended as a judgment on the teachers or their skill level, but is done to elucidate the challenge of implementing new practices and the separate challenges that arise in teaching DHH students. In addition, my role as observer was much different and much less demanding than the role of the teacher, who were required to engage in multiple tasks while enacting these lessons; I was afforded the luxury and opportunity of being able to examine the many variables that are interdependent within teaching without the responsibility to students.

I cannot adequately articulate how appreciative I am of my teacher participants and their efforts. They all agreed to be involved in the study for the purpose of illuminating if and how dialogic reading and subsequent literacy lessons could improve their teaching and address the language and literacy needs of their students. This meant examining areas to their existing practice that would need to be altered in order to implement dialogic reading and identifying obstacles that would keep this practice from being maintained in their classroom. This also required that they conduct themselves as teachers in new and sometimes uncomfortable ways; what I asked was not easy, both in terms of making changes to practice and letting me in to observe their teaching and discuss difficulties. In addition, I was videotaping their work, which made it permanent and not at all private. All of this was on top of an already demanding job. They all, without a doubt, were willing to work with me so that their students—and other teachers and their students—would benefit. For these reasons, they have my utmost respect.

### **Erin: “We Have Challenges Everywhere”<sup>10</sup>**

Erin taught a first grade class of seven students at the school for the deaf students. In seven years she had taught from kindergarten through fifth grade. Erin described several main concerns for her students’ language and literacy development. First, she was concerned about their readiness for reading because of language delays in their first language, American Sign Language, and the subsequent gaps in world knowledge and conceptual development. She felt repetition of concepts was necessary due to these low language levels. She was also concerned about the possibility of additional disabilities and how these may “. . . ultimately affect the way that they acquire, retain and process reading.” Lastly, she noted their difficulties with attending which caused them “. . . to miss out on vital information during school time” (Teacher Questionnaire, #15). She was unsure as to the cause of these attention issues, but listed undiagnosed attention deficits, immaturity or boredom as possibilities.

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<sup>10</sup> (Meeting, March 18, 2010)

### **Baseline Practices and Initial Analyses**

Erin divided her day into specific blocks for English Language Arts (ELA), which included reading, word work, grammar, writing, and handwriting, and varied daily. Often Erin introduced a topic or lesson, and then split the students into two small groups, with Erin teaching one and the classroom aide teaching another. For example, I saw Erin lead several reading lessons while Deborah taught vocabulary lessons. In essence, Erin and Deborah taught the same topic twice with different groups of students.

For reading lessons, Erin relied on the Silver Burdett Ginn curriculum and the Reading Recovery series, but she was also free to independently choose books. There were some required or recommended stories with curriculum levels that she used to guide planning. She used the school library and curriculum resource center to find “. . . books with repetitive text (needed for my students’ instructional level) that will either help me teach a specific concept in English, will be of interest to the students, or will support development of certain concepts that appear in our content area curriculum” (Teacher Questionnaire, #9). Erin felt the repetition of concepts was necessary because of the low language level of students. Technology was integrated into her lessons (SMART Board and ELMO) to display the text specifically so that students could see the signs for words and the printed text simultaneously.

Story signing was only on Erin’s schedule officially twice per week. The first story signing occurred on Tuesdays during Silent Sustained Reading (SSR). SSR is typically an opportunity for students to choose books and read them independently. However, because Tuesday had the longest scheduled time for SSR, the teachers always read a book to the children on this day. The second scheduled story signing occurred on Fridays during Reading-Go-Round, where another staff member read to her class. Erin also conducted story signings during other SSR times and during other subjects if a book was relevant to the curriculum topic. The books were kept in the class library for about four weeks, and were available to students during free choice time, centers, or quiet reading during SSR.

**Example of story signing.**<sup>11</sup> Story signing occurred in place of the typical Read Aloud in classrooms with hearing students. In this case, Erin or a team member used American Sign Language instead of spoken English to convey the story. Students were not expected to read this book themselves. Erin had one official scheduled time per week that she read in this manner to students. During my first observation of this time, Erin read to her class and the adjoining first grade class in the shared space between their two rooms during SSR time. She chose two books, one about a birthday party, because two students were celebrating their birthdays that week, and another about a snowstorm, because school had been cancelled the entire previous week due to a large snowstorm. Erin sat in a chair with the students sitting on the floor around her. She rested the book in her lap and looked down to read the text. Upon looking back up, she waved her hand to get the attention of the students, and began to sign the story. Other attention getting strategies included holding the book in her lap and waiting for the students to attend, sometimes stopping her reading and signing, “I am waiting for Jesse to pay attention.” After reading each page, she held the book out for all the students to see the pictures. The two stories took a total of 21 minutes to read, and then the students were allowed to experience books on their own for the remainder of the SSR block.

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<sup>11</sup> (Video: Two Stories, 2-16-10)

**Analysis of story signing.** In this story signing example, Erin chose the two stories because of their relevance to recent activities. She conveyed the stories using very clear American Sign Language, providing a sophisticated model of the language. She referred to illustrations to help explain or clarify her comments. Although she responded to questions by students (e.g. “Where is the butterfly?” or “Will the bear eat the rabbit?”), she did not ask questions of the students, either to check for their comprehension of the story or to engage them in conversation about it. This was most likely due to the fact that she was presenting the story to a large number of students (14), and engaging individual students through questions and dialogue would interfere with group attention to the story, especially considering the visual attention issues of DHH students.

Attention was one of the main concerns Erin had for her students. This example highlighted the physical and visual nature of attention with these students: each time Erin looked down to read the text, eye contact with the students was broken and had to be regained before continuing to ensure they were seeing the story presented. The more she broke eye contact, the easier it was for students to become distracted and disengaged. In later discussions I suggested reviewing the text beforehand so she could merely refresh her memory as opposed to fully reading the text as a way to handle these visual attention issues. Reading to small groups of students was the original recommendation in the literature on dialogic reading (Whitehurst, Arnold, et al., 1994). Perhaps if the students were more actively involved in discussion around the book—through questions and comments solicited by the teacher—there would be fewer attention issues. Therefore, it seemed the issues of attention and questioning were interrelated, and will be further analyzed in the next chapter.

**Example of reading lesson.**<sup>12</sup> Erin also incorporated story signings into her reading lessons as a way to introduce a book to the students. Because she also used them for reading lessons, she chose books with more accessible language. She reread the book three to five times to examine “. . . various parts of the book, focusing on different concepts and skills within the book with each reading” and because, “Some things need to be repeated several times or in multiple ways to allow for processing and comprehension with everyone” (Teacher Questionnaire, #14). During reading lessons, students received individual copies of the book Erin had read to them, and/or Erin displayed the text onto the whiteboard using the ELMO. Reading lessons were used as a way to connect the signs to the text and to build receptive and expressive vocabulary in both sign language and print. In addition, sometimes these books were reread during the story signing time in the schedule because “. . . the concept needs to be reinforced over time, or it’s a book that they especially enjoyed the first time around” (Teacher Questionnaire, #13).

Erin had read the students *Cookie’s Week* several times and used the text for a reading lesson, which she taught to the full class of seven students. The students knew the story about the mischievous cat, and Erin was teaching them how to read the print. She discussed a continuum of working from ASL to English: she first introduced the story in ASL, and then over the multiple readings of the book, introduced a more English-based signing, and was now connecting the signs to the print. The text was displayed using the ELMO on her whiteboard. Scissors and a remote were used to hold the book in place, often unsuccessfully. Erin had written the days of the week on 3x5 index cards and each

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<sup>12</sup> (Video: Cookie Story, 2-16-10)



student received one card. Erin also gave each student a soft block to use later in the story. Erin modeled the reading of the first page, which read: "On Monday . . . Cookie fell in the toilet" (Ward, 1988, p. 1). She pointed to the word *Monday*, paused for students to identify the word through its sign, and then waited for students to identify who was holding the 3x5 card that read *Monday*. The next page read: "There was water everywhere!" (p. 2-3) Erin pointed to these words with her left hand while she signed them with her right. For the word *everywhere*, she signed "ALL-OVER"<sup>13</sup>. From previous readings of the story, students knew this was their cue to throw their blocks into the center of the room. They laughed while they threw them, and then retrieved the blocks from various places on the floor. This occurred several times throughout the story.

The text on the next page began, "On Tuesday . . ." (p. 4). Erin signed, "Whose turn is it to come up?" She picked Jazlyn, who was the first student to her right. Jazlyn came to the board. Erin pointed to the text, and asked Jazlyn to sign. She signed "TUESDAY." Both Erin and Jazlyn then looked to the students to see who was holding the Tuesday index card. That student held up his card. Erin turned the page, which read: "Cookie knocked a plant off the windowsill" (p. 5). Erin pointed to the first word of text as projected on the board, and asked "WHO?" Jazlyn signed, "FALL-OVER." Erin replied, "FALL-OVER, RIGHT. WHO?" and pointed to *Cookie* in the text again. Jazlyn paused, then signed, "COOKIE." Erin nodded and moved her finger to the next word in the text, *knocked*. Jazlyn signed "FALL." Erin nodded and told her that was fine, then pointed to *plant*. Jazlyn did not know this, so Erin showed her the sign. Next Erin pointed to the phrase *off the windowsill*. She used a convention of sign language called a classifier to set up the plant in space on the shelf. Jazlyn copied her signs. Erin turned to the next page, which read: "There was dirt everywhere" (p. 6). Erin pointed to first word, *There*. Jazlyn signed THURSDAY. Erin corrected her, pointed to the next word, *was* and signed "PAST." Erin pointed to the next word, *dirt*, and then pointed to the illustrations of dirt on the page. Jazlyn signed, "WATER." Erin shook her head, pointed to word, signed "DIRT," then pointed to the word *everywhere*. Jazlyn signed that it was a big word, Erin nodded, smiled, and asked "WHERE?" All the kids responded by tossing their blocks.

For the next page, Erin asked Angela, who was sitting next to Jazlyn, to come up to read. The text was, "Cookie upset the trash can" (p. 9). Angela knew Cookie, but didn't know *upset*; she signed "DUMP." For the next page, "There was garbage everywhere," (p. 11), Erin pointed to garbage, but Angela signed "WATER." Erin pointed to illustrations of trash on the floor, and asked, "Is this water?" (This same guess, WATER, also occurred previously with Jazlyn, and later with another student on a page about clothes.) With this question prompt, Angela corrected her answer and signed "TRASH." She could not identify *everywhere*, so Erin held her hands in place for the beginning of the sign for EVERYWHERE, then Angela signed it and the other kids threw their blocks.

**Analysis of reading lesson.** For this reading lesson, Erin incorporated several aspects of bilingual teaching for DHH students. She initially presented the story in ASL, and gradually, with each retelling, brought the signing closer to English, as is recommended practice (Evans, 2004; Nover & Andrews, 2000; Schleper, 1996). In addition, during the first readings, Erin would hold the book and show the pictures and text when she had finished relaying the content. In later lessons, the text was displayed on

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<sup>13</sup> A word written in all capital letters represents an ASL sign (Baker-Shenk & Cokeley, 1980).

the board using an ELMO, to be visually accessible by students simultaneously, and she pointed to the English print on the board as she signed the words. In addition, she modeled the reading first herself. Erin used classifiers to set up items visually in space, a key element of ASL (Baker-Shenk & Cokeley, 1980). She also taught students to read English phrases using conceptually accurate ASL (signing *all over* as EVERYWHERE). The 3x5 cards were given to students to reinforce word identification and reading and these cards as well as the blocks were given to students to facilitate active participation; besides these two devices, however, the students sitting at their desks merely watched while their peers read one on one with Erin at the board.

In reviewing this lesson, I noted the obvious struggle between the competing responsibilities Erin had to teach the curriculum and to address the specific language and literacy needs of her students. Both of the students in the above description required assistance with most of the words and all of the phrases. The text did not seem to be at their reading level; it seemed the students needed a basic reading vocabulary, with words they used in their expressive language, saw often in text, and could use regularly in writing. Both students also provided the sign WATER as a guess, which they seemed to be remembering from Erin's modeling. However, nothing about the illustrations on their pages dealt with water, so I was concerned the students were merely guessing and not realizing the text and illustrations could provide them with information.

Erin and I discussed selecting and reading books for different purposes, some for story signings she would share with students and others the students would read themselves. This was one of Erin's biggest issues, as she wanted to be able to share a book with the students as a story signing, and then use it for reading lessons. She chose a single book for these both these activities with accessible print for her students. This was admirable, in that she was very concerned with helping students connect what they saw of stories in ASL to what they could read in print. However, it was problematic in that books the students could possibly use in a reading lesson were very limited in their language, and did not lend themselves to conversation, which is the very goal of dialogic reading. Erin commented that the students were "... not ready for literacy because they don't have first language skills, but that's what we're supposed to be doing" (Meeting, March 18, 2010); she was appropriately frustrated by attempting to address the competing issues of teaching the curriculum while addressing the very specific needs of her students. I recommended that she choose a story rich in language, and then create her own materials—a hallmark of special education—at an appropriate reading and instructional level for her students, in order to challenge them without overwhelming them (Meeting, February 23, 2010; Meeting, March 18, 2010). Erin struggled to find a compromise here, but the competing pressures of developing their language and helping them become readers made it difficult for her.

The previous example also demonstrates Erin's concerns with the students' questioning: Jazlyn was asked a *who* question and responded with an action. Erin supported that answer, and then redirected Jazlyn back to the original question, to which she responded correctly. It was apparent from this and other examples that for the implementation of dialogic reading, Erin and I would be focusing on the use of questions to engage the students more in the activity and provide them opportunities to use language themselves. In fact, this became an issue Erin and I discussed together on a regular basis. She was frustrated by the difficulties the students had with answering

questions, saying they often responded with blank stares, head nods and smiles, or answers that were totally unrelated to the question. We hypothesized that the limited sign language skills of parents meant students were not often asked questions in conversation at home, and therefore their limited experience with questions was at school. I suggested starting with more simple questions and building up to the more complex, and identifying what kinds of questions individual students were capable of answering.

Erin had utilized several strategies with questions, including giving students more time to think and respond, asking the question in a different way, providing them with more information, or giving them choices instead of expecting an open-ended response. While helping one student to answer a question in any number of these ways, Erin commented that other students would lose interest and divert their attention to other things, meaning that Erin then had to regain their visual attention after each of these episodes. I suggested involving all the students in helping to answer a question, instead of working only with the one student: ask the other students for the answer, have them model it, and then again ask the original student the question (Meeting, February 23, 2010).

**Example of lesson connecting American Sign Language to English print.<sup>14</sup>**

Erin taught a small group of three students at their desks, while Deborah worked with the other students at another small table. Erin began the lesson by reviewing the many signs for the word *run*. She provided the signs, and did not ask for examples from the students. The word *run* can be signed over 15 different ways in American Sign Language to indicate different concepts (Fairview Learning Corporation, 2002), and Erin reviewed the following meanings: runny nose, running a race, run in a stocking, engine running, run a store, run out of something (time, money), river running, run/volunteer. Erin gave the directions for the lesson's activity: choose a picture, and try to identify which sign for the word *run* is appropriate. She then cut out several pictures. Angela became distracted, turned to me, and waved at the videocamera. Erin got the attention of all three students, asked who would like to go first, and explained the directions again.

Jazlyn went first, and received a picture of a judge. Erin asked her how to sign it, and Jazlyn responded that she did not know. Erin provided the answer, "CONTROL. JUDGE CONTROL COURTROOM." After having a student bring over working glue (her glue stick was dried out), Erin turned away from the students to the board, where she glued the picture of the judge to a chart titled, *Run*. She also wrote the phrase, *run a courtroom*. Erin gave Jazlyn all the pictures, and asked Angela to choose next. Angela's picture was of a run in a stocking; the boy next to her helped explain the appropriate sign. Erin added that it was like a rip in your clothes, but specifically on stockings. She also clarified that it is different than a scratch on your skin, even though the signs are similar. Erin showed each student the picture, fingerspelled<sup>15</sup> R-U-N, and asked them how to sign it. Angela was supposed to hold the pictures and let the other student choose one while Erin glued the picture to the chart and wrote a sentence. Instead, Angela proceeded to

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<sup>14</sup> (Video: ELA run lesson, 2-23-10)

<sup>15</sup> The manual alphabet of American Sign Language represents the 26 letters of the English alphabet (Stokoe, 1960). It may be used to spell any word, but in particular is used for names, clarification, or for words that do not have an exact sign designate. Padden (2006) describes how young deaf children first recognize the movements of a fingerspelled word, and only later, when they are learning written English, do they connect those movements to letters of the English text.

look through all the pictures. When Erin turned around, she again told Angela to hold the pictures so the other student could choose one. His picture was *running out of time* and he demonstrated the correct sign for this concept. However, neither Jazlyn nor Angela saw the picture or the interaction between the boy and Erin. Erin collected the pictures from Angela, and then glued the boy's picture to the chart and wrote the phrase *running out of time*. She then asked the boy to show his picture to the girls. Erin got the attention of the students and reviewed the three pictures and the conceptually accurate sign for each.

For Jazlyn's next turn she picked a picture of Obama, and Erin described the correct way to sign *run for president*. She then gave a description of the voting process occurring every four years. Angela again turned to face the camera; I redirected her to Erin, who asked her the sign to use when running for president. She provided the correct response. Erin then glued the picture to the chart and wrote, *run for president*, while the three students had a conversation. Erin turned back to them, waving her hand and raising her arm to get their attention. She reviewed all pictures and conceptual signs, with the students providing the correct sign for the corresponding picture.

Angela's next picture showed a business meeting, and she signed, WORK. Erin took the picture and showed it to the other students. She explained that it depicted a meeting, and used the example of them all having a meeting right then in class. She asked who was in charge, and explained that she, the teacher, runs the meeting, showing them the sign for this concept and fingerspelling R-U-N. She asked the students to sign it along with her. Jazlyn, however, did not participate. Erin put her hands together to start signing "RUN-MEETING," and teased Jazlyn by moving her signing hands closer to her. Jazlyn laughed, but still did not make the sign. Erin turned to the other two students and clarified the difference between the signs for "CLEAN-UP" and "RUN-MEETING." The boy had a hard time forming the correct sign. Erin giggled and held his hands in the appropriate manner to show him the correct movement. Erin turned again to Jazlyn, and asked how to sign *run* appropriately with the picture of the meeting. Jazlyn answered, "YOU TEACHER." Erin then asked, "What do I do?" whereupon Jazlyn produced the correct sign. Erin smiled and nodded, and turned to glue the picture to the chart and write the corresponding phrase.

**Analysis of lesson connecting American Sign Language to English print.** In this lesson, Erin again utilized a bilingual approach. She explicitly taught multiple meanings of English words and their conceptually accurate ASL sign, and reviewed them throughout the lesson. Additionally, she clarified differences between signs that appeared similar to the students (RUN-IN-STOCKING and SCRATCH as well as RUN-MEETING and CLEAN-UP.) Perhaps she could have written these English words or phrases next to each other to provide further emphasis.

While Erin offered many conceptual signs for the meanings of *run*, it seemed the examples in this lesson may not have been relevant to the students' lives. At the start of the lesson, Erin had reviewed usages (runny nose, running a race, and engine running, for example) which would hopefully appear in the students' expressive language and therefore in their reading and writing more than the usages from this lesson. By building up a reading and writing vocabulary that reflects the students' expressive language, they can engage with that vocabulary in print more independently (Shanahan, 2006).

This lesson also demonstrated the reciprocal relationship between student participation and student attention. During this lesson, Erin was the one who glued and

wrote on the chart, and she did so with her back to the students. Each time she turned to the chart, she broke eye contact and therefore visual communication with the students—who then began conversations with each other and waved to the videocamera—and needed to regain that attention every time she turned towards them again. This activity could have been more accessible in terms of attention if she had brought the chart into the visual field of the students, by either bringing the chart to them (by placing it on a desk) or sitting them closer to the board. Having the students glue and write on the class chart, and/or giving them individual charts would have increased their participation, reading and writing experience, and perhaps understanding of the lesson. In particular, students could have glued a picture of the correct conceptual sign for *run* by the pictures, which might help with their comprehension, since their language and literacy levels were so low.

This example also highlighted the additional demands placed on teachers of DHH students in terms of helping their students visually attend. Jazlyn and Angela missed a conversation between Erin and the other student; in a hearing classroom, they still could have accessed the conversation. In a classroom with DHH students, the teacher also must assist the students visually attend to each other and herself in order to gain information.

**Erin's baseline practices and initial analyses: Summary.** This section offered a detailed introduction to Erin and her baseline practices around literacy. Erin had stated several main concerns for her students, including their language delays, readiness for reading, and gaps in world knowledge. By observing Erin's teaching, I was able to see how these issues presented during lessons and how they were related to the implementation of dialogic reading practices. During the course of the study, Erin and I focused on the following topics: questioning of and dialogue with students, issues with student attention, and the process of selecting books for different purposes. These topics became areas of focus with the implementation and will be further examined within the next section.

### **Implementation Work**

As described previously, I worked with two teachers, Erin and Rachel, at the school for deaf students over a period of three months. Their English Language Arts lessons were scheduled for the same time. Erin offered to adjust her schedule to accommodate my observation needs in the two classes, and I happily accepted her offer; Rachel could not adjust her schedule because she was team teaching. In addition, Erin sent weekly lesson plans so I could stay on top of her activities even when I was not present.

From the beginning of our work together, Erin asked for ongoing feedback, particularly with how she was incorporating questions and encouraging dialogue when reading books to students (Meeting, February 23, 2010; Meeting, March 23, 2010). Several topics arose during our first few meetings that became the focus for our implementation work together. These included how she, the teacher, asked questions of students to engage them in discussion, the difficulties students experienced with questions and what she could do about that, difficulties with student attention, and the choice of books to be read *to* students and to be read *by* students. I saw these issues as interdependent. Following is a description and analysis of this implementation process.

**Difficulties with dialogue.** Erin expressed concern about the limited language of her students and how to engage them with questions. Soon after our initial meetings and training, it was evident that she was attempting to integrate dialogic reading practices. For example, in a re-reading of *The Napping House* (Wood, 1984), a student asked why the grandmother was wearing a hat while she was sleeping. Erin provided a detailed response about how older women put curlers in their hair and do not want to mess it up while they sleep, so they put on a cap. The student was satisfied with this response, and then Erin showed the picture to all the students. She began to turn the page, but then returned to the student who had initially asked the question and asked, “Why is the grandmother wearing a hat while she’s sleeping?” to which the student responded appropriately, “It’s protecting her hair.” This is an example of a *Repeat* in dialogic reading, the purpose of which is to provide the student further opportunity to review concepts and use new language.

Erin began writing the dialogic reading questions into her lesson plans as a reminder to herself, and wrote a list of those questions on an index card for use during the story signings. She also provided the lists to her aide, Deborah, for when she was conducting the story signing. Erin asked questions at the end of each page of the text. She admitted that she asked questions that she expected students to be able to answer; however, she was frequently met with blank stares or answers that were off the point. She described how wh-word questions confused them. She acknowledged that the language delay was the culprit in this situation, but still found it to be frustrating. When students were not able to answer questions accurately, she was unsure how to break them down in a comprehensible way. I asked her specifically what she did in these instances and she discussed several strategies that she used. These included giving the students more time to process her question and their response, repeating the question for them, asking in a different way, or providing them with choices for their response (Meeting, February 23, 2010). Erin said she was not always sure what was the best option, and she expressed disappointment with herself that she could not identify or address the issue in all circumstances.

During my observations, I saw several examples of the difficulties students had with questions and the various attempts Erin made to help them understand and formulate responses. The following is such an example from the second story signing of *The Napping House*, which has been translated here from American Sign Language into English.

Desiree asked if there would be lightning.

Erin asked Desiree how she feels when she sees lightning.

Desiree responded, “Rain and lightning.”

Erin then expanded on Desiree seeing lightning, and provided her options: “Do you feel scared? Do you feel nervous? Do you feel like everything’s cool and you don’t have to worry? How do you feel?”

Desiree responded, “Flashlight and candles.”

Erin acknowledged Desiree’s response and further explained that the flashlight and candles were necessary because the power had gone out. Then Erin signed, “But let’s back up. You’ve seen lightning. How do you feel?” Erin then

supplied the options again: “Do you feel scared? Are you nervous? Do you think the lightning is cool? How do you feel?”

Desiree responded, “The lights go out.”

Erin nodded her head to this, and then asked, “But inside how do you feel?” Erin then explained how she feels when she sees lightning: “When I see lightning, I get a little bit nervous. I don’t like it. I want to stay in the house. How do you feel, Desiree, when you see lightning?”

Desiree responded, “Lightning. The lights go out.”

Erin took a deep breath and signed, “How do you feel then? What are your emotions?”

Desiree answered, “Candles. Candles.”

Erin responded, “We’ve discussed the candles. And it’s great that you remember that. But my question . . .” Here Desiree looked away, so Erin had to regain her attention. “My question is when you, Desiree, see lightning, how do you feel? Do you feel scared? Are you nervous?”

Desiree responded, “Scared.” She signed it many times as Erin repeated her question and then signed, “You feel scared? Okay. Good answer!” Erin gave Desiree a high five. Erin then signed, “Watch me. You Desiree see lightning and you feel scared. How do you feel?”

Desiree responded, “Candles.”

Erin shook her head no. Erin asked the question again: “You see lightning. How do you feel?”

Desiree responded: “Window.”

Erin again shook her head no and then expanded on Desiree’s answer, signing: “You look through the window and see lightning. How do you feel?”

Desiree answered: “Lightning.”

Erin shook her head no, and signed, “Scared.”

Desiree copied her sign, “Scared,” several times.

Erin signed, “Let’s try again. When you are at the window and you see lightning, what do you feel?”

Desiree signed, “Dark and cloudy.”

Erin sighed and leaned towards Desiree, raising her eyebrows. She set up the situation, asked the question again, and provided multiple options for the answer: “You are at the window and you see lightning. What do you feel? Do you feel scared? Do you think it’s no big deal and not worth being afraid of? Do you think it’s cool? Which do you feel?”

Desiree looked at Erin, but did not respond.

Erin raised her eyebrows again and signed, “Which?”

Erin waited for several seconds for a response. Desiree finally signed, “Lightning,” to which Erin asked, “What do you feel? Scared, nervous, it’s not a big deal? Which? What do you feel?”

Erin turned to another student and told him to leave another student alone. Then she returned her gaze to Desiree, who signed, “It’s no big deal.”

Erin repeated that response in the form of a question, “It’s not a big deal? Ok. I’ll ask you again. You see lightning, what do you feel?”

Desiree responded, “It’s no big deal.”

Erin smiled broadly and gave her a high five, then turned the page of the book and signed, “Now let’s get back to the story.” (Video: Napping House B, February 22, 2010)

Throughout this interaction, which took three and a half minutes, Erin was amazingly patient and her attempts to assist Desiree are very evident. Erin expanded on Desiree’s own comments repeatedly, adding the students’ information into both her explanation and questions. Erin provided choices for appropriate responses repeatedly, and rephrased the questions repeatedly. One of the problems with this interaction, which Erin admitted, was that the other students were not engaged during this time. She stated, “I feel like I work with one, and then lose all the others” (Meeting, March 18, 2010). My suggestion was to make such efforts a group activity, so that Erin would ask all the students how they felt upon seeing lightning, receiving answers from several, if not all of them. With other students perhaps responding correctly and providing a model, she could then return to Desiree and ask her again about how she feels when she sees lightning.

Throughout the study, Erin commented about how the language delay of her students affected their ability to answer questions, and sought feedback on how to address this in her practice:

I think there's a long way to go with how they're answering questions. It definitely feels like pulling teeth. I guess, while you're here if you feel that there's any way that I can bridge that differently. I feel like it's hard to scaffold the questions when they're a little bit harder for the kids. (Meeting, March 18, 2010)

I suggested to Erin that she identify individual abilities and goals for each student around questioning, so that she could adapt the questions to the appropriate level of each student, perhaps lessening the frustration level both for her and the students. This, however, seemed to put a larger cognitive load on her while trying to implement the new dialogic reading practices within an already challenging process.

I also made the suggestion that Erin attempt to add onto student responses, as she had done with Desiree in the above example. For example, during a reading of *The Three Pigs*, Erin asked what the wolf wanted to do. The students took on the role of the pigs, signing, “You can't come in!” Erin acknowledged the students were providing information that was described on the next page, but she was having difficulty getting them to answer the specific question about the wolf. The students seemed to persevere on their own comments, so I suggested that Erin incorporate that into her explanation and perhaps ask a new question related to their comments before coming back to her own question. I also suggested providing a comparison question, such as, “Does the wolf want to play with the pigs?” If the students understand the story, they will realize this is not the case, but this question can guide them to the correct response.

Erin also voiced concern over the amount of information to provide students with questions: “I have a hard time going into this long stream of information, and then expecting them to draw something out of that” (Meeting, April 27, 2010). After seeing me model a story signing, Erin noted that her questions at the end of each page did not feel natural and perhaps she was over-thinking the process.



I felt like I was doing a question like after every page. Or after, . . . like I was asking so many questions that it might have like interrupted the story flow a little bit. And I'm kind of just now realizing that maybe I shouldn't have asked so many questions. Like, maybe I should have let the story go a little bit and then ask a question. (Meeting, April 28, 2010)

Erin's thoughtful reflection on her practice only made it more obvious that she wanted to do the best for her students.

By the end of the study, Erin commented that her class was making progress with answering questions, but she was unsure if this was because she was adapting her questions more, because they were experiencing more questions, or a combination of both. While Erin acknowledged student progress, she continued to experience frustration with her own practice:

. . . some of the questioning when they're not there [not understanding], I feel like, I'm not figuring out how to scaffold them there correctly. Like, I'm not always bridging them to that question . . . which I don't know if I should just eliminate some of the more difficult questions. And start with having success with the more basic questions that they can do, and use that as a bridge. Or if they should be exposed to that before they're really ready for it. You know? (Meeting, April 27, 2010)

These frustrations were very legitimate, and I acknowledged to Erin that she made numerous attempts with students, in various ways, to help scaffold questions and bridge student language and comprehension with questions.

**Attention issues.** Erin also voiced concern about her students' ability—or lack thereof—to attend during story signings and lessons, which caused them to miss information presented through sign language. This issue of students' attention is a serious one and needs to be acknowledged because their mode of communication requires visual attention. This visual attention is physically demanding, especially for younger students, but is necessary for both conversation and concept development. There is also a physical demand on teachers to maintain and regain this visual attention, much of which requires physical touch or movement.

Erin described how attention was a problem during story signings. She commented that reading to her students took longer than with hearing students, because when she paused to read and process text, she broke eye contact with students and lost their attention. Regaining their attention took time and effort; this inattentiveness made the reading less enjoyable for her and she would “just try to get through it quicker” (Meeting, February 23, 2010). I suggested that she read the book beforehand so there would be less need to reference the text during the story signing, thereby minimizing the breaking of the visual connection between her and the students.

Erin also was concerned about balancing the linguistic needs of one student with the visual attention needs of the whole class. She explained:

. . . the thing that I find frustrating is you sit here and you get one right answer from one of the students, and then you turn to the next one, and you ask them the

same questions, and they don't know it . . . And it's just an attention thing . . . But then I ask them again and they give me the wrong answer again, and I ask them again and they give me one sign. And I don't know if I should keep asking. Or, . . . If I should keep modeling, or if I should try to include, like then ask another kid, or . . . You know? I'm not sure exactly what to do, because I feel like the more I'm interacting with one kid and asking them again and again, the more I'm losing the other ones. (Meeting, March 18, 2010)

The competing priorities for individual linguistic needs and the needs of the class as a whole were an issue Erin and I attempted to address throughout the study.

**Choosing books.** I recognized that the choice of books could make a difference with both the issues of attention and dialogue. Erin explained that she chose books for story signings that she could connect to print: with simple, uncomplicated stories the students could access the text more easily (Meeting, March 18, 2010). Unfortunately, the books that used simple, repetitive text did not lend themselves to many questions or conversation, which is the very point of dialogic reading. My suggestion was to be strategic in choosing books for different purposes, choosing stories with sophisticated language and plot for story signings in order to engage students in discussion, while choosing more simple, accessible texts for their reading lessons. I also suggested that, based on my prior experience as a teacher, books used with story signings often could be brought to print, but did need to be adapted for the students to access them without frustration. I offered several examples of how to do this (including simple summaries, journal work, game board, and Bingo, to name a few). The problem with this is it requires more time and effort by the teacher to make it happen. Erin acknowledged that this was a valid suggestion, but was not able to make it happen during the course of the study.

### **Summary: Erin**

The concerns that Erin expressed for her students were very legitimate and evident in the classroom, and were also relevant for the implementation of dialogic reading. Specifically, she was concerned about the effects of their language delay on conceptual and world knowledge and readiness for reading. She was willing to implement dialogic reading into her practice in order to address these issues. In particular, Erin expressed frustration and difficulty in attempting to engage students in dialogue, and stated that their delayed language made this a difficult task. Her attempts to help one student understand and respond appropriately to a question often meant the other students were not as actively involved and lost attention. Regaining their attention—or getting it in the first place—was often difficult. Erin and I discussed how choosing appropriate books for story signings could alleviate some of the problems surrounding dialogue and attention.

Unfortunately, the competing responsibilities Erin negotiated daily made it very difficult for her to feel satisfied that she was adequately addressing the language and literacy needs of her students. With literacy, she said she wanted to expose them to the concepts and skills of the curriculum and it was her responsibility to do so. However, she also stated how this conflicted with their linguistic needs, saying that since her students were linguistically at a two or three year old level, it was not appropriate to ask them to transfer information over to their second language in print when they were not able to

discuss it in their first language, even after several story signings and discussions. Despite her efforts, Erin struggled to implement dialogic reading practices within her challenging environment.

**Rachel: “There’s so much they need to know, so much I have to teach them . . . I find that just totally overwhelming.”<sup>16</sup>**

Rachel taught a second grade class of six students at the school for deaf students, where she had taught for nine years. She did not know sign language when she was hired, but at the time of my study was proficient in American Sign Language. Previously, she had taught special education and directed an early childhood special education program. She had been in the field of education for 26 years.

Rachel expressed concern about the knowledge gaps that her students experienced in comparison to their hearing peers, and the overwhelming feeling of responsibility to provide them with information they needed. For example, during a lesson, students were talking about food they enjoyed, and one student described a chicken sandwich with “red and green,” meaning tomato and lettuce. In discussing this incident, Rachel got a desperate and frustrated look in her eyes, and said, “What do I do about that?” (Meeting, 2-23-10). The delays in students’ language were evident not only in academic topics but in everyday ones as well. Rachel was concerned about how to address these language issues—and what they meant for literacy—appropriately in the classroom.

### **Baseline Practices and Initial Analyses**

Rachel’s schedule had daily blocks of English Language Arts (ELA), which were taught by herself, her team teacher, and the team teacher’s classroom aide. At the beginning of the study, Rachel was teaching reading, her team teacher was teaching writing, and the classroom teacher aide was teaching vocabulary and spelling. By the end of the study, Rachel and her team teacher had switched topics. The students rotated between the three adults during the ELA time, which varied between 50 and 80 minutes per day. Students were grouped homogenously by ability. Like Erin, Rachel used the Silver Burdett Ginn curriculum, as well as Reading Recovery books and other texts she located from the school’s curriculum resource center. She also used the SMART Board and ELMO for many of her lessons in order to display the printed English text while signing it simultaneously.

With story signings, Rachel commented that the activity built vocabulary and she enjoyed seeing the students use the language of the story. She did add, however, that in order for the story signings to help further her students’ language development, she needed to improve: “If I get better, the kids will get better” (Meeting, February 23, 2010). Rachel did not have a formal time in her schedule for story signings, although they would occur during English Language Arts, with books they were using for reading lessons. If books were used for story signings during other parts of the day, they were typically a one-time event and not re-read. Following is a description of how Rachel read books and conducted reading lessons with students.

**Example of story signing.<sup>17</sup>** Due to a change in the schedule for vision exams, Rachel and her team teacher were not engaging in their typical ELA groups the first day I

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<sup>16</sup> (Meeting, March 18, 2010)

<sup>17</sup> (Video: Friend Story, 2-19-10)

observed her baseline practices. Instead, Rachel conducted a story signing with her homeroom students. They sat at their desks, which were arranged in a *U* shape, and Rachel sat on a chair in the middle of the desks. Rachel had chosen to read a book about friendship. Due to a snowstorm the previous week that had resulted in the school closing, the students had missed a Valentine's Day party; they were very disappointed that the event had not occurred. The teachers subsequently planned a Friendship Party for this week, had been discussing how the students were good friends, and had them write friendship cards to each other. Rachel chose this book and topic to go along with the friendship theme.

As Rachel picked up the book, one of the students began asking her questions about the book and asked to see the pictures; Rachel responded that she would be showing the pictures throughout the telling of the story. Rachel did not show the cover of the book, but opened to the title page and displayed it for the students to see. One of them saw the word *friendship* and signed FRIEND. Rachel nodded, then put the book on a desk to her left, pressed the pages to keep them open so she could reference them as she read, and began signing in American Sign Language, not using her voice.

She signed the first page of the book, explaining how friends like each other, play together, and spend time with each other. She then picked up the book, and passed it in front of the students so they could all see the illustrations. A student made a comment about it, to which Rachel responded with an affirmative head nod and signed "RIGHT." Another student commented about the picture, and Rachel pointed to it and asked what the two kids were doing. A girl did not respond correctly, so Rachel asked the question to the group. A boy answered that the kids were sharing. Rachel gave him a high five and started to sign something. This was awkward because she was still holding the book, so she put it down, and then signed that the two kids shared cookies.

She turned to the next page, looked at it, and passed it in front of the students. She put the book down on the desk, and began to sign about how the friends lived on the same street and went to the same school. Then she commented that they went to school with their friends. A student made a comment and Rachel nodded her head affirmatively and signed, "RIGHT." Another student commented about the kids standing on the corner. Rachel explained that they were waiting for the school bus, and then asked the boy where he waits for the bus. Because the students at this school were picked up from all over the city, they were picked up at their homes. Rachel explained how most children in a neighborhood wait together at a corner for the school bus.

Rachel turned and began signing the next page, which talked about how friends help each other when they are hurt. One student signed, "That's the nice thing to do." Rachel repeated the comment and nodded her head affirmatively. Then she asked another student what he would do if his friend was hurt, and told him he was nice and a good friend when he explained how he would help.

Rachel explained the next page about making friends with new students, emphasizing that students new to a school often feel lonely. Then she asked if the kids remembered who was new to their class, and they all enthusiastically began to comment. Rachel signed that they had a new student—and with a big smile pointed to her—and that all the students were very friendly to her and welcomed her to the class. At this point, Rachel noticed that two students were having a conversation. She turned to them, touched one of them on the arm, and signed to both of them to watch her. She pointed to the

illustration, and brought to the class' attention how the new student had a scared expression on her face. Then she signed that this was just like the student new to their class. She signed, "She was scared because she was new, and what did you all do?" One student answered, "We helped her." Rachel commented, "Right. You helped her and told her your names. You all were very friendly." One of the boys commented about a new girl in the class upstairs, and Rachel responded, "Yes. She's new too."

Rachel continued to sign the story and make connections between the topics of the book and students' lives. For example, she asked the children if they played jump rope, and asked if the kids remembered which friend of theirs had performed in the school play. She signed, "We all watched and then told him he did a good job and clapped." She also asked if the kids help each other with their schoolwork after this was mentioned in the book. One student commented that he helped his friends during math. She responded to students' questions, helping them identify the people in the illustrations ("This is the teacher and this is the mother.") Rachel read from the book that siblings can be friends too; she then looked to one student and said, "Your new baby sister will become your friend!" Another student commented that his dog was his friend. Rachel nodded her head and replied that cats can be friends too, and asked another student to look at the child who was commenting. Rachel read how sports camps are a place to find friends; she asked who played soccer. No one responded, to which she got a quizzical look on her face. She looked directly at one student and asked him again. This time he responded affirmatively and then commented about the picture. Rachel pointed to the illustration he was discussing. Another student asked if the picture was of a raccoon. Rachel shook her head no, and brought the book closer for him to see. Then she teasingly signed, "You need your glasses!" He pulled his glasses out from under his desk and put them on. Rachel read the last page, and signed, "We're finished," and then sent the students to get their writing journals.

On the SMART Board Rachel wrote the date and asked the students to write the title, *My Friends*. One student needed help writing *friend*, so Rachel gave him the book *Just My Friend and Me* by Mercer Mayer (1988) as a reference. He wrote *friend*. Rachel then asked him, "What if you have many friends?" and he added an "s" to the word. She then explained that she wanted them to identify three friends. She wrote the numbers one through three on the board under the title and told the students to write down their friends' names. One student asked if he could write the same friend in each number. Rachel giggled and told him to use different friends for each number. She helped another student write the name of one of her friends. She then told the students that they would have to finish later, as they had to line up for their vision exams.

**Analysis of story signing.** For this story signing, Rachel chose a book that was relevant to the discussion the class had just been having about their friendship party. She also repeatedly made connections between the book and the students, for example with waiting for the bus, welcoming a new student, and helping others. She asked questions of the students throughout the story signing, often responding to their comments by signing "RIGHT," but also adding further comments or questions to extend the conversation. Rachel also referred to the book and the illustrations to clarify comments or questions. When a student was commenting, she was able to redirect others who were not paying attention and/or were engaging in private conversations without causing a distraction and losing the flow of the conversation. Rachel also connected this story signing to a writing

activity immediately upon finishing the reading. She offered a book to help a student with spelling, and then asked him a question about pluralizing the word without supplying the answer herself in the form of correction.

From this example, it appeared that Rachel was already incorporating several features of dialogic reading, by connecting the book to the students' lives, asking them questions, and expanding on their comments to create a dialogue about the book. Since this had been a "filler" activity before vision exams, I was curious to see how much or how often this activity was part of classroom practice. Rachel explained that sometimes she would conduct a story signing at the beginning of Silent Sustained Reading, or to introduce a topic in reading or another subject, but that it was not a regularly scheduled practice. Scheduling story signings therefore became a major focus for Rachel and I during implementation.

**Example of reading lesson.**<sup>18</sup> Rachel had introduced a new story for a reading lesson the previous day, and was now continuing the lesson. She explained that she would tell the story again, and then the students would create their own books by coloring pictures and writing about them. The story was part of the reading curriculum and titled, *I Went Walking* (Williams, 1989). Rachel had the book open and placed upside in front of her on a kidney shaped table, so that the three students could see the text and illustrations correctly from their perspective. She asked for the title of the story and then asked what they saw. A student responded, "Cat." Rachel said, "Yes. A black cat." She then signed the text and asked the students to predict what the narrator saw as he walked. A student said the boy saw a horse, and Rachel added that it was a brown horse, asking a question about what he was doing. Another student responded, "Looking at me." Rachel repeated the phrase and told the student he was correct.

Rachel continued with the story, saying that the boy was walking and asking what he saw. A student pointed to the next picture of a cow and, responding to a question by Rachel, said that the cow gives milk. As Rachel signed how the animals were lining up behind the boy and following him, she used numbers to indicate how many animals there were, first signing "THREE FOLLOW" then "FOUR FOLLOW." With the next page, Rachel asked what the pig was doing. A student replied that it was getting a bath, and Rachel asked why. She then expanded on the answer that he was dirty, saying he needed a bath and now was clean.

When they were finished retelling and discussing the story, Rachel asked the students to get the books they were making. She opened hers as an example. On the first pages were pictures of a cat and a horse (she had colored and pasted these inside previously). She read the phrases she had written on the pages: "I saw a black cat" and "I saw a brown horse," signing in English word order. She then told the students to color the pictures and then write about them in their books. One of the students meticulously cut out his animals and patted his belly in satisfaction when he was done. Another student wrote the title *I Went Walking*, but on the wrong side of the paper. Rachel showed him that it would appear upside down on the title page. He signed that he was sorry. She smiled and let him know that it was not a problem, and he went to his desk to retrieve an eraser. The third student pasted the cat into his booklet. There were blank lines on the page for the students to add text; Rachel asked what he would write. He pointed to the curriculum book and its text. She asked him to sign it, and he replied, "I saw" and then

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<sup>18</sup> (Video: *I Went Walking*, 2-23-10)

fingerspelled S-A-W, “cat.” She wrote on the board, “I saw a black cat” and showed him her own booklet. He began writing the sentence in between the two lines.

**Analysis of reading lesson.** This lesson was a combination of Rachel and the students retelling the story. Rachel referenced the text on the page, but discussed the topic and actions using American Sign Language, asking the students to identify and explain what was occurring. After this discussion and with sufficient participation by each student to demonstrate their conceptual understanding, they began working on individual booklets. Here, Rachel signed the sentences in English word order. This is considered good bilingual practice with deaf students: discussing the concepts adequately in the first language, ASL, before bringing focus to the English print (Bailes, 2001; Evans, 2004; Nover & Andrews, 2000). Rachel allowed the students to plan and conduct their work at their own pace and in their own way. For example, one student cut out all of the animals before proceeding to the writing, whereas another focused on all the activities for one page at a time, coloring and cutting out each animal and then writing the corresponding sentence.

During our work together, Rachel and I also discussed activities to make explicit connections between the signs of the story and the print of the text. Because much of the text from narrative stories was more sophisticated than the students’ reading abilities, it needed to be adapted to their reading and writing abilities, which Rachel admitted was a challenge. She specifically asked for assistance with these additional activities. I suggested the following: sequencing pictures and text from the story (which could be especially helpful with student retells), having students dictate text and then illustrate and write their own story books, playing Bingo with vocabulary words from the book, and relying on the books themselves to create other activities. The problem, unfortunately, was time: these activities all required additional time for the teacher to create. We discussed how to incorporate these additional literacy activities into the schedule. At the end of the study, Rachel commented that while she was fairly comfortable with creating literacy activities from books, she had not done that and felt it was a missed opportunity. She commented that finding the time for story signing “. . . was just the hardest thing for me. I think, I found it easier as we went along; the more I did it, the easier it was” (Meeting, April 28, 2010). Scheduling therefore became a focal issue during implementation.

**Rachel’s baseline practices and initial analyses: Summary.** Rachel was concerned for the knowledge gaps that resulted because of her students’ language delays. She felt that story signings could build their expressive and receptive vocabularies and enjoyed seeing them use the language of the stories. Rachel was already incorporating several features of dialogic reading, including asking questions, expanding on student comments, and connecting the book with the students’ lives. She wanted to improve her own skill with story signing to enhance their linguistic development. Rachel did not have a regularly scheduled time for story signings and asked for assistance in adapting materials for the reading and writing levels of her students for instructional purposes.

### **Implementation Work**

During our initial meetings and trainings Rachel agreed that books were a naturalistic way to provide examples of varied language as well as new knowledge and information. With implementing dialogic reading, she raised concerns about how to

question students. In particular, she asked for guidance in how to allow them to participate without going off topic. We also worked together on finding consistent places in her schedule for story signings using dialogic reading. In addition, Rachel requested assistance in how to make connections between the signed story and the printed text. Each of these topics is described below in more detail.

**Difficulties with dialogue.** From my baseline observations, I identified several aspects of dialogic reading already occurring within Rachel's practice. She engaged students in conversation and connected the book to their experiences, by asking them questions and repeating and expanding on their comments. Rachel wanted to ensure that she was incorporating the specific recommended behaviors of dialogic reading, PEER (Prompt, Evaluate, Expand, and Repeat) and CROWD (the particular prompts and question types: Completion, Recall, Open-Ended, Wh-Word, and Distancing, which connects the books to the students' lives). She asked if she could or should post these somewhere in her room and/or place a list on her lap to use as a reference during reading. I printed out a list of PEER and CROWD for her to use for this purpose. I also suggested that she pre-read the book to get an idea of questions she might want to ask or additional concepts she might want to introduce. I somewhat reluctantly suggested that she use post-it notes on pages to remind her of these questions or comments; this concerned me because of the potential to interrupt the spontaneous nature of dialogue, and I shared this concern with Rachel. However, I thought it could be beneficial to help the teachers be more cognizant about ways to engage the students. Further into the study, Rachel explained that this had been helpful to her: "I think just becoming more aware of it, especially becoming more aware of the questions that I'm supposed to be asking, was helpful. I find myself doing that [asking questions] more" (Meeting, March 18, 2010). She also commented that she felt better able to scaffold questions in order to guide students to the correct answer.

Rachel also expressed concern about keeping students on topic when they were engaged in conversation about a book. Specifically, she pointed out her own discomfort: "... I don't know when I feel like it's okay for them to interrupt and stuff. Does it matter if they have, if they interrupt and make a comment? Do I stop and then go back after, you know?" (Meeting, February 24, 2010). My recommendation was to allow students to ask questions and make comments, because these may indicate areas where they do not have the necessary background knowledge. Rachel could then offer explanations to further both their conceptual knowledge and the conversation. I also encouraged Rachel to push the limits of her comfort zone. I explained that if students were discussing a topic from the book, connecting the book to their lives, or connecting the book to another story they knew, these were conversations worth having and connections that were important to foster. I also explained that because the story signing and its retells would occur over several days, that this actually allowed time for the conversation, as the story signing could continue where it was left off on the next reading. Because most story signings had previously occurred as a one-day event and were not continued or retold, this was a new concept and afforded Rachel the opportunity to facilitate more of those conversations. Rachel acknowledged that while she had initially feared going off topic in conversation, she came to realize that her students really enjoyed discussing the book; she became more comfortable with dialogic reading when she realized the goal was to engage the students in more conversation.



Rachel was also very intent on having all of her students participate in the discussion; she wanted to ensure that all the students were offering comments and asking and answering questions. She explained that she wanted to be aware of which students could answer specific questions, so that she could provide them with an appropriate prompt. In the midst of the story signing, however, she found this difficult. She admitted that it was also challenging to keep track of who had not answered questions or made comments during the story signings. She also discussed the difference between more talkative and more passive students, saying, “And I think my other fear is you get focused on the kids that are talking, and I’m like ‘Alright, have to get you in. Get you in.’ ” (pointing to desks of kids who were not as actively engaged; Meeting, March 18, 2010). My suggestion was to sit less chatty students near chatty ones, so that when her attention was on the student signing a comment, she could easily move to the student next to them to bring them into the discussion as well. As often occurs in classroom, one student in particular often wanted to make a comment or respond to a question. I suggested sitting this student closer to her, so that she could touch him gently to redirect his attention and touch him to ask him to pause and wait while another student commented.

I also suggested doing story signings in a different physical location than where most of their other academic learning occurred. I explained to Rachel that this may help her differentiate between “teaching” and “facilitating conversation” for the lessons—she had commented about getting in a different mindset for teaching reading and story signings—and that she could even explain this to the students. For example, telling students they pay attention well during lessons, but for story signings, they do not need to raise their hands to comment or ask a question, that the rules for this activity are more relaxed. In addition, sitting on the floor, in close proximity to students, would allow Rachel to assist with their visual attention needs more easily than when they are seated at their desks. Rachel incorporated these suggestions and commented:

Allowing them to have fun and interact and, you know, I think they really started getting into it. And we went over there [pointing to an area on the rug where they sat for dialogic reading story signings], and that was a fun time. (Meeting, April 28, 2010)

**Issues with time and scheduling.** While Rachel would sometimes conduct story signings during ELA times, there was not a consistent place in her schedule for them. Together we tried to negotiate times where she could tell a story repeatedly during the week using dialogic reading; Rachel acknowledged that the biggest issue for her with implementation was making time for story signings in her schedule. She initially offered the 2:30 time slot, saying she was often finished with the day’s activities (the school day ended at 3:00), and would use that time to review homework, for students to catch up on work, or for them to engage in center activities. However, upon trying story signings at this time, she found there was often not as much time as she had expected (only 15 minutes as opposed to 30), and that she was often “done” by this time of the day (Meeting, March 18, 2010). She also said that, after a very cold and snowy winter, she was sending the students outside to play at this time of day if their work was finished. This was similar to research on book reading in early childhood classes, which found

“book reading is not a vital daily ingredient . . . and may even be dropped from the school day if the children are too energetic or the weather is too inviting” (Dickinson, McCabe, & Anastasopoulos, 2003, p. 105).

During my second visit to this school site, Rachel, her aide, Wendy, and I spent the better part of one of our meetings trying to find more appropriate times. Scheduling also was difficult because of the team teaching that was occurring; Rachel had very limited time with just her homeroom students for dialogic reading. After some explanation of their schedule and its limitations, we found time to first introduce a story to her class during Silent Sustained Reading (SSR) on Tuesdays, with repeated readings on Wednesdays, and student retellings occurring on Thursdays and Mondays. Some students left for speech class during the Thursday and Monday times, allowing Rachel and Wendy smaller groups for the retellings, as well as opportunities for one-to-one reading with other texts, which is a traditional SSR activity. Both Rachel and Wendy commented about how their students loved the opportunity to retell stories. I also suggested that Rachel could use these scheduled student retells along with the school’s K-2 Literacy Initiative. Rachel had previously commented that she felt overwhelmed by the additional responsibilities being placed on her with this initiative, which included videotaping students’ signing. I felt the student retells of story signings would be a natural connection to this videotaping requirement for the literacy initiative.

We also discussed how Rachel and Wendy could share responsibility for story signing using dialogic reading, acknowledging that it is a cognitively demanding task. I suggested various possibilities, including that one of them read the book the first day, and then the other retell it the next. Another recommendation was that one take the lead for a book for a week, leading the retells and any related activities. This second suggestion I had found more successful in my own teaching practice. I noticed that students would begin conversations with me that would continue over several days of story signings and retells. The students made a connection not only with the book, but with the reader of that book, and maintaining that connection and the flow of the conversation seemed the most beneficial for the students. Rachel and Wendy discussed both options, but agreed to try this second option based on the reasons I offered.

### **Summary: Rachel**

Rachel was concerned by the conceptual gaps her students incurred due to language delays. She expressed an overwhelming feeling of responsibility to provide them with information they needed, and was interested in further incorporating dialogic reading into her practice in the hopes of improving their conceptual and linguistic development. She specifically asked for feedback in engaging students through dialogue and supporting their comments and discussion. While Rachel stated she felt story signings could introduce new vocabulary and help facilitate language development, she had not incorporated this practice into her regular schedule. The issues of time and scheduling interfered with Rachel’s stated concerns for her students and became a major topic of our work together.

**Arielle:**  
**“Those kids should not be language delayed . . .**  
**This should work for them. This is important.”<sup>19</sup>**

Arielle worked at a typical elementary school where she taught a second-third grade class of nine deaf and hard of hearing students. The school was located in a suburban area of Northern California. Arielle was a first year teacher, and had not yet completed her teacher education program when she began teaching. She had originally applied for the classroom teacher aide position, but was offered the teacher position when no one else applied.

Arielle’s concerns centered on the language issues in her classroom: the language delays of the students, the varied language needs within the class, and her ability to communicate appropriately using sign language. In discussing the language delay experienced by most of her students, she commented that she spent a significant amount of time teaching background knowledge before she could introduce the story itself. While teachers often provide explanations for concepts before reading a book, Arielle correctly realized that her students lacked the basic knowledge that was necessary for their understanding of the story. She found that there were so many basic concepts—and words and signs—that several lessons were required to teach these before she could even hope to get to the story itself. She remarked that because of this, her class was behind the recommendations in the pacing guide. This was stressful for Arielle, as several of the students were mainstreamed in general education and she needed to keep them on the same pace as their hearing peers. However, she was very frustrated by this, saying that differentiating instruction for these students was important and necessary but conflicted with the school’s goal of following the curriculum and pacing guide.

The varied communication needs of the students were also challenging for Arielle to address. Some students could communicate quite well using their speech and hearing, and she wanted to support that. In addition, she wanted to support the visual communication needs of the students who relied on sign language. She acknowledged the difficulty and inaccuracy that resulted when trying to do both simultaneously. Her sign language courses had been in ASL, and she was well aware that the grammar and structure of this language was much different than English—pretty much making it impossible to enact both languages at the same time.

In addition, Arielle was very critical of her sign language skills, and felt she was doing the students a disservice by not being a better model for them. She commented that signing stories was especially difficult and required preparation to find and learn all the signs she would need for the story. However, she was adamant that she was not going to let this discourage or stop her from reading, as the students needed the stories and she could improve her skills.

### **Baseline Practices and Initial Analyses**

Arielle’s day began with 45 minutes for Academic Language Development (ALD), which was a requirement for all the teachers in the school because of the large number of English Language Learners. This time was set aside to specifically develop oral/expressive language proficiency. Arielle conducted most lessons with speech and sign language simultaneously, including this ALD time, because of the varying

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<sup>19</sup> (Meeting, May 11, 2010)

communication and language needs in her classroom. Several of her students were auditory/oral learners, and did not use sign language; others were not able to depend on speech or hearing, and relied on sign language for expressive and receptive communication. In my observations of the Academic Language Development, for which there was not a guide or recommended activities, the students were engaged in discussions about what they had done during the weekend, games to practice their fingerspelling, and lessons about prefixes and sentence structure.

As discussed previously in the methods section, Arielle's schedule changed often, due to a variety of factors. However, the Academic Language Development time was typically followed by a lesson from the Houghton-Mifflin curriculum, where Arielle focusing on reading, language, and vocabulary. These lessons lasted between 25 and 35 minutes, depending on the day. After lunch, Arielle resumed literacy activities, with independent work, mini-lessons with small groups, and one-to-one work. Arielle created the independent work to review concepts she had previously taught based on the goals of the curriculum and standards. Students also wrote in their journals and engaged in independent reading during this time and some students were pulled from class for speech therapy.

**Example of story signing/read aloud.**<sup>20</sup> Arielle chose books for story signings/read alouds that introduced or supported new concepts. She aimed to read stories outside of the curriculum three times per week, but often found she ran out of time, and then did not finish reading and/or was not able to return to that book later.

For this story signing/read aloud, Arielle had chosen a book titled, *Inside-Out Grandma: A Hanukkah Story* (Rothenberg, 1997).<sup>21</sup> She sat in the middle of a kidney-shaped table, with the nine students seated around her. She held the book in her left hand while she signed with her right and voiced. She asked for students' attention and read the title. A student, Mark, said he did not know what that meant, and asked her to explain. Another student repeated the title and added gestures, and Arielle responded, "She went outside and inside, yes. Inside-out." She explained that there would be new words in the story, and that she would write them on the board. She wrote the author's name and the title on the board. She added that she had looked through the story and found new words, said and signed them, and wrote them on the board. These words were *gelt*, *latkes*, and *Rosie Posie*. Mark asked what *Rosie Posie* meant, and another student told him it was her last name.

Arielle introduced the two main characters in the story, the grandmother and the granddaughter, Rosie, and began reading. She read about Rosie telling her grandmother that her clothes looked silly, but the grandmother responded that she had a good reason for wearing her clothes inside out, to remind herself to buy oil to fry the latkes. Arielle then asked the students what happened and what Rosie said. She asked six times in different ways without getting a response, and then asked if she should repeat the reading. She then re-stated that the grandmother was wearing her clothes inside-out and asked the

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<sup>20</sup> Arielle is the only teacher in my study who spoke while she signed the story. Therefore, I refer to this activity by both its traditional name with hearing students, Read Aloud, and the term I am using with ASL, story signing.

<sup>21</sup> The full description of this story signing/read aloud can be found in Appendix G. Highlights are presented here for the purpose of explication and analysis. (Video: *Inside-Out Grandma*, 12-15-09)

students if they knew what that meant. To demonstrate, Arielle brought her coat to the table and put it on inside out, explaining that is how the grandmother was wearing her clothes. The students commented that this was silly. Arielle re-read the section, saying the grandmother was wearing her clothes in this manner to remind her of something. The students did not know what she needed to remember to buy. Arielle explained that it was oil, and asked if the students knew what this was. Gabriel said it was like gas. Arielle said that it was like gas, but not for the car, for frying the latkes. Gabriel asked what color the oil was, and Arielle asked all the students if their moms used oil to fry food. Jorge said that his mother cooked eggs in oil.

Arielle continued reading the story, with Rosie asking her grandmother how wearing her clothes inside out reminded her to buy things. Arielle asked what the grandmother wanted to remember to buy, with a few students responding “potatoes” and “oil.” Arielle asked the students why the grandmother needed the oil. She asked this four times without getting a correct response from the students. She continued reading, with the grandmother commenting about the grandfather’s “coppery red hair” (Rothenberg, 1997, p. 7). Arielle explained that copper was a metal and asked if they knew what that meant. Arielle picked up a chair and showed them its leg, saying that it was metal, but copper was a red metal. Selena commented that she had metal on her tap shoes for dancing.

The story signing/read aloud was interrupted twice, first because the classroom phone was ringing and shortly thereafter because a students’ hearing aid battery had run out. In both instances, Arielle passed the book to her teacher aide, Shelley. Shelley continued signing the story but did not use her voice because she was deaf. When Arielle returned to the table, some of the students asked her to use her voice to tell the story.

Arielle resumed the story, with the grandmother explaining how the family celebrates Hanukkah. Arielle said, “I’m gonna read this page,” and stopped signing, using her finger to track the print while she read the page aloud. At the end of the text she asked, using her voice and signs, “And what does grandmother need to buy?” A few students responded correctly that she needed to buy oil. Arielle read that the grandmother needed to feed the family and would be cooking. Gabriel said, “Yum! Pancakes!” Arielle asked what the other word for pancakes was in this story, and he answered correctly with “latkes.” Jorge yelled, “Latte!” And Selena said, “Pancakes!” Arielle explained that latkes are like pancakes but are crunchy because they are fried in oil. At the end of the story, Arielle asked what Rosie’s dad would say when he saw the grandmother with her inside-out clothes. Three of the students responded that the grandmother would remember she needed to buy oil. Arielle then dismissed the class for Physical Education. This story took 35 minutes.

**Analysis of story signing/read aloud.** This lesson made clear Arielle’s concern for the conceptual development and literacy learning of her students. She introduced several new topics and vocabulary before and during the story, and wrote these words on the board. However, a few of these explanations took away from the flow of the story. For example, after reading a part about the grandfather’s coppery red hair, Arielle described copper as being a metal, looked around the room for something that was metal, and then picked up a chair to show the metal components. The metal was not actually important for the plot of the story and took her off the point, which was that the grandfather had very red hair. Arielle later described how she felt overwhelmed and “gets

distracted” by the many concepts that appear in stories, and knows she was sidetracked with explaining these details instead of focusing on the plot itself (Training C, January 28, 2010). In addition, some of the explanations did not seem clear, and the students were unable to answer questions, even when they were repeated. After reading *inside-out*, Arielle responded to a student’s comment saying Rosie “went outside,” but this was not the meaning of the term in this story. Arielle did not fully explain the term until later in the lesson when she brought over her coat and demonstrated. During the reading, Arielle asked questions of the students, but the majority of them were *yes/no* and simple *what* questions. In checking student comprehension, Arielle asked *yes/no* questions again (“Do you understand?”) instead of soliciting student explanations.

As stated previously, Arielle was concerned by her beginning skills with sign language. Before reading this story to her students, she had looked up the signs for several words and phrases and had practiced the story signing at home. During the reading, she commented that her nerves got the better of her, and even though she had prepared she forgot several of the signs she had just learned. She also stated that she had not yet “. . . reached a certain technique in reading” (Interview B, December 15, 2009). She acknowledged that reading to a larger group was more demanding than reading to just one or two students.

Because Arielle told the story using simultaneous speech and signs, the hard of hearing students were able to access the story, while the deaf students had more difficulty. The complexity of speaking and signing simultaneously became too much at one point, and Arielle only used her voice for the reading of one entire page. In fact, the hard of hearing students were involved in asking and answering questions during the reading, but only one of the deaf students made a single unsolicited comment throughout the entire reading.

Even determining how to hold the book was a challenge for Arielle. Within hearing classes, it is appropriate for the teacher to hold the book in order for students to see the text and illustrations while she is reading. However, this is not an appropriate practice with DHH students for two reasons. The first is that students must split their visual attention between the book and the signs relaying content. This is especially difficult for younger children; older children may be able to reference both adequately, but with another person holding the book so that the teacher can sign the story. The second reason is that holding the book interferes with sign production. Arielle held the book in her left hand while she signed with her right, which is difficult to do, regardless of one’s skill in sign language, but more importantly it interfered with sign production and clarity and resulted in partial and/or unintelligible signed utterances.

**Example of reading lesson.** During the course of my study I did not observe reading lessons in Arielle’s class, due to a variety of reasons, including the following: her schedule was in flux, she did not conduct reading lessons around the stories she read aloud, her lessons were often one-on-one with students, and I was conducting student assessments. However, I had observed reading lessons the previous semester when I was her college supervisor. In one of those lessons, she worked with a small group on a story they had begun the previous day. The students individually read out loud while others listened, and then the group read together. Arielle defined unknown words from the text, by writing the word, drawing a picture on a large chart paper (ex. waterfall), and demonstrating the sign. She also brought over a chart she had from the previous day’s

lesson, with the vocabulary and coordinating pictures, to remind the students of words and their relationship to the story (observation notes, October 27, 2009).

The text seemed difficult for the students, and Arielle expressed concern over preparing students for assessments instead of teaching to their reading level. We also discussed that it was difficult for hard of hearing students to follow another student reading out loud—and near impossible for the deaf students to do so—and I recommended she use an ELMO to display text so she could point to it while students were reading and signing along. She requested this machine, and the first time I saw her do this, she projected the text onto the curtains and stood by the machine. I recommended that she project the text onto the board, so she could point to the words during reading and interact with the text by underlining words or phrases. We got an extension cord so she could keep the machine near her so she could quickly turn pages when necessary. At the end of the study, Arielle commented that the ELMO helped her make connections between the signs of the story and its print, but she felt she was not using it as much as she wanted for explicit instruction.

**Arielle's baseline practices and initial analyses: Summary.** From the above examples it was clear that our implementation work could focus on developing a story signing/read aloud style. This would include examining the purposes of readings and re-readings, how to introduce new vocabulary and concepts before or during the story, and determining what information would be better provided in a reading lesson. Other obvious topics included engaging students through questions, identifying ways to address the different and competing language needs of students, and scheduling and organizing story signings/read alouds and reading lessons with more visually appropriate methods.

### **Implementation Work**

Because of our previous work together with Arielle's college supervision course, we were already comfortable working together and she was used to soliciting and receiving feedback as well as sharing her concerns and frustrations. As a first year teacher—who had not completed her teacher training—she experienced many additional difficulties that would have challenged an experienced teacher. The contradictory communication needs of the students in her class were of particular concern. The issues I was hoping to address did not receive the time or attention required because of competing factors, including these communication needs of her students and the pressure to follow the curriculum.

**Developing a reading style.** Arielle commented that she did not have a reading style yet, and admitted feeling overwhelmed by the amount of information and details contained in stories. I thought the progression of dialogic reading could be beneficial for her. We discussed introducing a story in a storytelling manner, without reading word for word but conveying the meaning of the story, and then discussing concepts or English conventions in subsequent retellings or lessons. Arielle admitted that it was difficult to sign the sentences exactly as they were written, and asked for suggestions. I provided an example from a recent story she had read with the word *fortnight*, recommending that in the initial telling she sign the meaning (fourteen days) and in later retellings and reading lessons she could introduce the English word and discuss its meaning. I also suggested using story signings/read alouds, and student retells of them, during the required Academic Language Development class in the morning. Arielle was reluctant to do so

because several of the students were mainstreamed to other classes during that time, and she did not want them to miss the story. We also discussed what aspects would be best to discuss not as part of the story signing/read aloud but within a reading lesson, using the ELMO to display the text for explicit instruction. I was hopeful that this understanding of how to use the story over several retellings and lessons would allow Arielle to maintain the flow of the story without becoming bogged down in the details; she acknowledged that this made sense and was something she could do.

Arielle noted that time was an issue with story signings/read alouds. First, because she was a beginning signer, she needed to look up several signs for words and phrases from stories before she told it. Because of her busy schedule, Arielle admitted she often was not able to do this until late in the day when she was already tired, which made it harder for her to remember these new signs the next day during the reading. In addition, when she did not know a sign during a reading, she wanted to show her students how to access resources to find the information. She felt it was important to explain new terms and concepts so the students would be able to understand in the moment, but felt this took a lot of time. She also commented that reading books in addition to the curriculum was time consuming.

**Difficulties of simultaneously speaking and signing.** A major concern of Arielle's was the very different modes of communication of the students in her class and how she was supposed to address these. As a hearing person, it was natural for Arielle to speak all of the time, and because of this her hard of hearing students had the opportunity to receive the spoken information she was providing. However, the deaf students were not getting as much information because she was not using signs as often. In an analysis from one of Arielle's final videotapes of story signing/read aloud, she used her voice—with no signs at all—28% of the time. In addition, she only offered complete, accurate signed messages for the spoken story content 21% of the time. All of her other spoken messages were accompanied by partial or inaccurate signed equivalents, sometimes rendering the message unintelligible. One of the problems that interfered with her signing was that she held the book while she read. I encouraged her to either leave it on her lap, or ask Shelley or a student to hold it while she signed, but I think Arielle felt conflicted in this because she wanted her students to have access to the print and illustrations while she told the story.

I suggested that Arielle implement small groups for the story signing/read aloud based on language needs, one as a read aloud for the hard of hearing students, another as a story signing for the deaf students. Arielle had previously mentioned that reading to the full class was much more demanding than reading to a smaller group, so I thought this would address her needs as well as the students'. In particular, I thought it would be much easier for Arielle to focus only on producing speech *or* signs during a given reading, without the interference and difficulty of trying to do them simultaneously. For subsequent retellings and discussions, I offered two suggestions. First, I suggested that after the initial small groups, the students all come together for discussion, which I thought would be easier in terms of time and scheduling. My second recommendation was that she maintain these separate groups, so the students would receive the benefits of appropriate language (spoken or signed) in a small group setting, where they would have more opportunity to use language and participate. In particular, I thought this would benefit the deaf students, who did not participate as much in the story signings/read



alouds as their hard of hearing peers. However, this suggestion required organization of the schedule and coordination with classroom staff. Because of issues with Arielle's aide and then substitute teachers, as well as other competing demands, Arielle was not afforded the opportunity to do this.

**Responsibility to the curriculum.** Arielle felt at odds about her responsibility to teach the curriculum, follow the pacing guides, and meet the needs of her students, which she felt conflicted. She was obligated to follow the grade level curriculum because of testing that all the students took, and because several of her students were mainstreamed into other classes and needed to be at the appropriate content level. However, she acknowledged that, because of the language and conceptual delays of her students, it took her class much longer with any one topic or story than the typical classrooms. She complained that knowing a test was approaching made her feel that she needed to rush over topics so her kids could have as much information possible for the tests. Of the pacing guides, she questioned: "Who are they to tell you [what you should be teaching]? Why are we in a self-contained class? What does differentiated instruction mean?" (Meeting, January 27, 2010). Arielle was in constant distress by these competing responsibilities.

### **Summary: Arielle**

Arielle was in a very challenging situation. She had not yet completed her teacher training, so felt that she did not have all the knowledge and skills necessary to be a teacher. Her students had different and incompatible communication needs, which she felt inadequate in addressing, especially given her beginning sign language skills. She felt her obligations to the curriculum were in conflict with the needs of her students, especially since several of her students were mainstreamed to other classes. In addition, she could not rely on her teacher aide for small group instruction, so felt alone handling the responsibilities of the classroom. Within this context, it was not surprising that Arielle was not able to implement dialogic reading practices in a way I hoped she would, for example, in using small groups for story signings/read alouds, in order to address students' communication needs and provide them more opportunity for language use and participation. However, despite these challenges and stressors, Arielle was intent on doing the best she could for her students, and actively sought out ways to do so.

**Meg: "... you learn you need to build background knowledge ...  
But what does it look like with deaf kids who haven't had a language?"<sup>22</sup>**

Meg taught a class for deaf and hard of hearing students within a typical elementary school. Her five students were in the fourth and fifth grades, and a student from the sixth grade DHH class joined for most of the day for both academic and communicative reasons. At the time of the study, Meg was a second year teacher.

Meg's major concern for her students was the development of a first language, which she believed should be American Sign Language (ASL). In particular, she was concerned both by the lack of influence by parents, because of their very limited abilities with sign language, and the confusion caused by the use of Signed Exact English in their previous school experience. Meg commented that the goal of English literacy went hand-in-hand with language proficiency in ASL, and that if students had a strong first language

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<sup>22</sup> (Meeting B, May 4, 2010)

then subsequent connections between the two languages would be more easily understood. However, she was concerned because the families of her students had very limited sign language abilities, and were therefore not able to serve as language models for their children. Meg was frustrated by the lack of language experience her students had in their home environments, and the subsequent gaps in their background knowledge. She was also concerned for how they would acquire information, and felt this was an overwhelming responsibility on her as their teacher. For instance, in teaching sexuality education, Meg commented that the students asked many questions, including personal ones, but added, “. . . who else are they gonna ask?” (Interview, December 10, 2009). Meg also commented that the students did not have many models of ASL besides herself, and she was concerned that one proficient adult was not nearly enough to access and learn a language (Personal communication, February 23, 2011).

Also, in their previous school, there had been a focus on speech and Signed Exact English. Meg felt that this did not meet their communicative needs and focused on their disabilities as opposed to their abilities. In addition, she described how the strict focus on one sign for each English word resulted in conceptually inaccurate signed utterances, such as a student signing, “That really *bugs* me!” being signed as “That really *insects* me!” (Observation notes, December 10, 2009). She noted that reading in this manner also significantly interfered with students’ comprehension of printed text.

### **Baseline Practices and Initial Analyses**

Students arrived in Meg’s classroom for instruction at 8:15, but she reported that it took about 15 minutes for them to turn in their homework and get their hearing aids and FM systems (assistive listening devices) ready before she could begin teaching. She began every day with a writing lesson, which lasted from 30-40 minutes. She typically wrote a prompt on the whiteboard and reviewed pertinent information, including vocabulary and the appropriate verb tense, before students wrote their responses. Students were responsible for two journal entries a week in past tense, and one in future tense. Following this was an hour-long reading class (an example will be provided below), using the Harcourt English Language Development Grade 3 curriculum. Meg read the stories to students page by page using American Sign Language or simultaneously signing and speaking—depending on the students’ preference—and then had the students read the text independently from their books. Meg selected supplemental texts that also related to the standards.

Meg aimed to conduct story signings three times a week, for 30 minutes in the afternoons. She said this depended on the day’s activities and what had been accomplished, or more accurately, what still needed to be accomplished. She said, “I’d like to read more, especially because I know they’re not getting this exposure and experience with books at home, but it’s hard to fit it in with the standards” (Interview, December 12, 2009). Meg tried to use deaf models of language to tell stories when possible. Every Friday, a deaf staff member came to the class and read a story to the students. And occasionally a deaf high school teacher would read to them. When the students were not being read to, they were given time to independently read their library books. The school used a computerized program called Accelerated Reader to determine each student’s instructional reading level. Students read a book and took comprehension tests on the computer at each level before advancing. Meg also had a hard of hearing

volunteer who came once a week. She read one-on-one with students and/or had them retell stories. The school speech therapist took students from the classroom, but her work was not integrated into the classroom as it was in the school for deaf students. Although there were paraprofessionals assigned to Meg's class—who served as interpreters when the students went to non-academic classes with other teachers—Meg had concerns about their abilities to help with the academic aspects of the class. She therefore taught all the lessons herself.

**Example of story signing.**<sup>23</sup> Meg believed story signings could help students make connections between ASL and English, saying: “Students need to be able to receptively and expressively comprehend and retell stories in their L1 [first language] before trying to understand and answer questions about that story in their L2 [second language]” (Teacher Questionnaire #16). Meg said the activity, “. . . gets crazy, but crazy in a good way,” and described it as “the perfect problem” (Interview, December 10, 2009). Students’ enthusiasm for the activity, while sometimes difficult to manage, provided them the experience with dialogue and asking questions, thereby meeting her goal of providing them a foundation in their first language. She discussed how story signings helped students comprehend stories by giving them experience with asking questions, predicting, and connecting the book to themselves, to the world, and to other books, opportunities they did not receive at home.

For my observation of story signing, Meg had chosen a collection of Dav Pilkey stories titled *Dragon Tales* (Pilkey, 1991). She sat at the kidney shaped table in front of her whiteboard with her five homeroom students. Meg began the story signing about a dragon who lived alone. She asked a student to sit up, and began again, but the student started making a comment. Meg stopped signing and looked down at the book, not at the student. Meg began again. The student raised her hand, Meg signed to her—without making eye contact—to put her hand down. Meg began again. Naseer asked if the dragon was a boy or a girl. Meg looked to the text, nodded her head affirmatively, and signed, “It says *he*. What’s that mean?” Naseer answered, nodding his head knowingly, that it means he is a boy. Meg got a timer from the ledge of the whiteboard and set it so she would be aware of the time. She then continued the story signing, conveying that the dragon did not want to be lonely any more and met a squirrel and then a hippo, neither of whom wanted to be his friend. Garrett began making funny faces; Meg looked at him and shook her head no. He stopped. She continued the story signing, making use of signing space to set up characters appropriately on either side of her so conversation between them was easily followed, a feature of ASL called body shifting (Baker-Shenk & Cokeley, 1980). Meg described the dragon meeting a gray hippo, signing and then fingerspelling both *gray* and *hippo*. As she showed the pictures to the students, Aaron began making a comment, but Garrett began talking and signing over him. Meg redirected Garrett to look at Aaron for his comments. She then fingerspelled *hippo*, instead of signing it, and asked where it was in picture; Mona responded by pointing to the animal.

Meg added, “The dragon is sad because the animals don’t want to be his friend. That’s rude.” Naseer copied the sign for rude. Teasing, Meg turned to Naseer and signed, “Rude like you?!” Naseer answered affirmatively, so Meg asked seriously, “Are you rude?” He sat up quickly in his chair, as though he had not been fully attending before, and signed “no,” repeatedly. Laughing, he then pointed to the two boys sitting next to

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<sup>23</sup> (Video: *Dragon Tales*, 1-13-10)

him. Garrett began making a comment. Meg got Naseer's attention and told him to look at Garrett, then she asked, "What were you saying about a skunk?" Garrett commented about how he saw a picture of a skunk eating cat food. Meg flapped her hands to get all the students' attention. Mona asked what Garrett had said about the skunk, and Meg repeated the information.

Meg continued with the story signing, conveying how the dragon visited a pond and met an alligator, and then sat under a tree, only to have an apple fall on his head. She showed the students the illustrations. Mona stated that she thought a bird in the tree threw the apple onto his head. Meg repeated Mona's comments for the group. Meg commented that the bird was mean, and then asked Mona if she thought the bird would be mean or nice. The students added their opinions, and Naseer commented that maybe it was a bear who threw the apple. Aaron commented that a bear would be too heavy for the tree. Naseer did not see this comment because he was signing with Meg, but when Meg looked away, Aaron shared his thoughts about the bear with Naseer. Garrett commented that he thought the bird was the kind that pecks. To clarify, Meg asked some questions, and then fingerspelled *woodpecker*. She then repeated the explanation for the class. Mona said she had the same prediction.

When the timer ran out, Meg began signing and talking at the same time, explaining that they would have to finish the story tomorrow. She then asked for predictions about if the snake would be the dragon's friend. Aaron offered his prediction that the snake would be mean, and Meg asked what the snake would do. Aaron said he did not know, so Meg offered a few examples. When Aaron still could not explain why he thought the snake would be mean, Meg told him to think about it. He then changed his response, and said he thought the snake would be nice. Meg explained that he could predict the snake would be mean, but that she wanted him to guess what he might do. She then asked using ASL, "Do you think the snake will drag the dragon to the ocean and let him drown?! That would be mean!" She then turned to Yasminah and Mona and, using simultaneous speech and signs, asked for their predictions. Meg repeated Mona's prediction to the class that the snake would climb up the dragon's back and then ended the lesson.

**Analysis of story signing.** Meg was already incorporating several features of dialogic reading into her practice, including expanding and questioning techniques. She also asked questions of students to further their language opportunities, especially in asking students to predict future events. In fact, she spent the last several minutes of the lesson in conversation with the students, asking what they thought would happen. Meg would often scaffold these questions, starting and ending with open-ended questions, but providing examples of options or asking simple yes/no questions in between these harder question types. For example, when asking Garrett what the dragon was looking for, she asked, "Why was he looking for the snake? Why? Did he want to eat him?" When clarifying student responses or comments, Meg often offered an inappropriate example ("Will the snake eat the dragon?" "Will the snake take him to the ocean and let him drown?!") in order to provide a contrast to the expected answer and to elicit further responses. This also made for enjoyable interactions and the students often laughed when she did this.

Meg asked questions numerous times and in various ways ("Do you think a bird dropped the apple? Is it a mean or nice bird? What do you think? Do you think the bird

will become the dragon's friend? Do you think they will become friends? Do you think they will or won't be friends?") I believe Meg engaged in this questioning style to accommodate the students' visual needs, their comprehension, their language delays, or a combination of all of these factors. Meg added, "the reason for so much repetition of questions is related to how often they (students) answered questions wrong" (Personal communication, February 23, 2011).

Meg handled behavioral interruptions to the story signing using a variety of techniques. These included using a stern facial expression, nodding her head no, stating expected behavior, and waiting for compliance. On a few occasions, namely the interaction at the very beginning of the story signing, Meg engaged in these techniques without actually making eye contact with the student. Eye contact is a very important part of Deaf culture, because it is necessary for communication. However, from my own teaching experiences, I know that sometimes looking at a child and waiting for them to change their behavior can escalate the situation. Meg confirmed she was intentionally avoiding eye contact with the student in order to avoid a power struggle. This example shows Meg's respect for the student; Meg gave the student time to meet the behavioral expectations and avoid getting in trouble.

**Example of reading lesson.**<sup>24</sup> Meg began the reading lesson by asking the students what they remembered about the new story. Students raised their hands, and Meg commented on each student's answer before asking the question again by signing and speaking simultaneously, "What else do you remember?" Each student responded to the question, with Meg asking more specific details about what they had already read. When a student commented that ants eat seeds, she asked the students what seeds humans could eat. Students offered sunflower seeds and pumpkin seeds as examples. One student commented that he ate fruit seeds, to which Meg responded, laughing, that she did not, but if he wanted to that "was cool!" She then passed out individual reading folders, where she had copied the pages of the story. She explained that these pages were review, and told the students to take them out and read them. The students began reading, two with and two without signing, as they preferred. Meg got their attention by gently hitting the table twice, and then told them to raise their hand and ask her for help if they did not know a word. Naseer asked for the signs for several words in the text, including the following: *ponies*, *disappear*, *cozy*, and *worn*. At one point, Naseer raised his hand, but Meg had stepped away from the table to speak with a staff member. He waited for almost a minute with his hand raised but then went back to reading; when Meg returned to the table he did not ask for help. When Garrett finished reading, Meg asked him if he understood and he responded that he had. She gathered his folder and those from the other students, and then praised them all for their focused, independent work and reading.

Meg then began discussing (using simultaneous speech and signs) how ants built their anthills. She asked if the students could spell *tunnel*. Naseer tried but misspelled the word by one letter, to which Meg responded, "You are very close!" Another student correctly spelled it, and then Meg told them she would review the pages they had just read and show them a picture of a real anthill. Aaron began talking about ants in his house, and Meg asked if the kids remembered the ant problem they had in their classroom previously. At this point, the speech teacher entered the classroom, bringing Mona back from a lesson and taking another student.

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<sup>24</sup> (Video: Reading Lesson, 1-13-10)

Meg asked who remembered the title of the story, and then asked the kids to vote on how she should communicate for the discussion of the story. All of the students asked for voice off, sign only, except for Garrett. Interestingly, he signed—without using his voice—that he preferred she also speak as she read. Majority ruled, and she continued the review using ASL. Meg reviewed how hard the ants work to build the hill, and teasingly asked Garrett if he was lazy or a hard worker. As she was describing a picture, Aaron asked a question about it, and Meg explained that those were harvester ants and their job was to collect food. Meg then asked the students how many rooms were in the anthill, how the floor became smooth, and the meaning of the word *cozy*. Students supplied the correct answers, and Meg asked Naseer to demonstrate when he feels cozy; he lay down on the floor and pretended he was sleeping. Meg said and signed, “Perfect! Perfect! That’s cozy!” Then using an ELMO machine, Meg displayed and discussed a picture of an anthill: a scientist had poured concrete into the anthill in order to discover its complexities and intricacies, including the numerous tunnels and rooms. Garrett asked if what he saw were the babies, and Meg corrected him, saying they were the rooms. He then began counting the rooms, but Meg told him there would be hundreds.

Meg started reading the next page of the story, which was new, but stopped when Garrett was not looking. He explained that he had something in his eye, and Meg told him that was okay and she would wait for him. She then asked the students to vote on the communication mode for reading. Garrett again voted for her to use her voice, and so did Mona, so Meg resumed reading from the page, speaking and signing the information to the students. A student responded incorrectly to one of Meg’s questions, and she began explaining the answer using simultaneous speech and sign, but then switched to ASL without using her voice. When she began reading the story again, she used speech and sign to communicate about husks of seeds and the worker ants that dispose of them. Meg finished reading the page, and then explained that she now wanted the students to read it, and if they needed assistance with a word, to raise their hand. She had copied the page of the book and passed it out to all the students.

**Analysis of reading lesson.** Meg began this reading lesson by asking what the students remembered from the story. Each student had an opportunity to participate and contribute to the discussion. Meg began by asking broader questions and transitioned to asking for more specific information. She attempted to connect the story to their experiences (called the distancing prompt in dialogic reading) by asking what seeds they eat and recalling a time when they had ants in their classroom. Meg was not critical of the students’ comments or mistakes; she in fact praised Naseer’s spelling attempt, even though it was inaccurate. During this lesson, Meg took control of the visual attention of the group, and twice waited patiently before continuing with the story (when Garrett had something in his eye and when Mona returned from speech therapy).

After reviewing the story, Meg asked the students to vote about how she should read them the next pages. Meg explained in depth why she did this in the initial interview (December 10, 2009). She stated that she preferred to first read a story to the students using ASL, because then all her students had equal visual access despite their various hearing levels. She asked the students to vote with each reading because she wanted them to feel empowered about their needs and their Deaf identity, but said she had been concerned by their response the first time she asked because they all wanted her to use her voice only. Meg explained:

... you can tell that students come from an environment that puts hearing and talking on a pedestal and that's what's most important. When they're saying things like that, they've clearly had some mixed messages ... but they have so many misconceptions about their own identity and their own hearing loss.

Meg was concerned that the students were more aware of the desires of teachers and parents than cognizant of their own communicative needs. Meg wanted them to identify and ask for the kind of communication that was best for them. She explained further:

So originally they all voted: "Voice only! Voice only!" It was kinda like, "We can! We can! We can do it!" kind of thing. Like, "We know that's what you want" and so I would. I would read to them without signing, kinda to help, not to embarrass them, not to crush them, but to show them that, no, that isn't the way they can best ... I'd read them the story (using my voice only), and I'd read at a regular pace, and 'Blah blah blah' [mimicking talking fast]. And they would laugh. And it was funny, and then I would ask a question [using American Sign Language], "So who were the two main characters in the story?" And I was getting these looks like [makes confused face]. "Ok. So is that the best way for you to understand?" I mean, it was such a process, and they really truly believed that they understood best when it was [signs: read orally]. They don't have parents that sign. But now they understand a lot more about themselves. Like I have students who can explain and express when they vote. And they'll vote for voice off, and I'll ask them why, and they can explain why. They can tell me: "I pay attention better." Or "I understand better." (Interview, December 10, 2009)

Meg's concern for the language and communication access of her students was very obvious both through this conversation and through her practice. Although Meg preferred to read the story using ASL, she was respectful of the students when they later voted during the lesson for simultaneous speech and sign. However, she changed back to ASL when she felt an explanation was clearer in this manner and when it was the more appropriate language approach for the student.

Meg had a conversational manner when she was relaying information from the text to the students. She did not make direct connections between her signs and the English print of the text during this lesson, except for fingerspelling of words; she explained to me that this was not a time when she focused on English, as she wanted the students to comprehend and enjoy the story first before studying and reading the print. For reading, however, Meg encouraged the students to ask for her help if they did not know a word; she later explained that she tended to introduce a new story on Monday morning, and would teach the vocabulary that afternoon. This, however, meant the students did not know many words when they began to read. In the above example, Naseer in particular asked for help with many words, and when she stepped away from the table, he did not appear to have or know about other resources. In addition, when the students were independently reading to themselves, either silently or with sign language, it was unclear how Meg checked their reading accuracy or comprehension. For example, when Garrett finished, she asked if he understood, and he responded that he had. She did

not ask for a summary of his reading, ask for details, or ask other comprehension questions. She later clarified that she asks for summaries before she asks questions that check for comprehension (Personal communication, February 23, 2011). In another meeting, Meg said she stopped asking students to sign while they read, because they would merely sign the words and not try to comprehend the meaning behind them. She felt the earlier focus in their education on identifying each word in text using SEE interfered with their comprehension, and she did not want to support that word identification in her classroom.

**Meg's baseline practices and initial analyses: Summary.** Meg was concerned about the delayed language development of her students and subsequent knowledge gaps, and her limited ability to address these issues during school hours due to her academic responsibilities. Meg felt much of her teaching time involved discussion with students to engage them, provide them language opportunities, and explain new concepts. She was incorporating several features of dialogic reading into her practices, including expanding on student comments and furthering their involvement through questions. With story signings, she encouraged the students to consider what language they would most like to see, and was pleased that students were realizing that they could understand more through ASL.

Meg felt the influence of Signed Exact English interfered with her students' comprehension of text. In fact, she felt their concept of reading was merely identifying words. However, after Meg read text to them, she did not offer instruction in strategies for their independent reading. The main areas of focus for our work together were reading instruction and helping students make connections between ASL and English print.

### **Implementation Work**

From the start of our work together, Meg was very accommodating; she described herself accurately as "super flexible" (Meeting, December 1, 2009). She offered to make changes to her schedule to accommodate my observation needs and assessments of students. She offered to call parents to explain the research and ask for their consent, saying the parents trusted her and might be more willing for their children to participate if she explained the research instead of me. Most importantly for my goals, she was also open to feedback that would help her implementation of dialogic practices and improve her teaching, saying she did not offend easily and was receptive to constructive criticism.

From our first discussions, Meg was enthusiastic to be involved in the study. She felt she was already doing the discussion aspect of dialogic reading, saying she encouraged her students to express their ideas and relate their own personal experiences to stories because this basic dialogue was not able to occur with their parents. Specifically she stated that she tried, "... to engage them and get to my goals through their connections or what they have to say" (Interview, December 10, 2009). However, Meg was very concerned for how to help her students make connections between ASL and English print. In particular, she was concerned with how their experience with Signing Exact English (SEE) affected their reading comprehension, adding, "It's so hard to 'undo' or re-teach what they've learned" (Personal communication, February 23, 2011). For the purposes of the study, we decided to focus on how Meg could make those explicit connections between ASL and English in order to influence their reading.



**Issues with students' reading.** After several baseline observations, the training in dialogic reading, student assessments, and further observations, Meg and I met to determine the focus for our work together. I had transcribed all the audio data from our previous meetings and reviewed several of the videos of story signings and reading lessons. From this data, I had compiled a list of specific areas where Meg had asked for suggestions or feedback that correlated with the goals of the study. We agreed to focus on teaching strategies that made explicit connections between ASL and English in order to improve students' reading comprehension.

Meg described her concerns about how SEE interfered with the students' reading comprehension and offered a recent example. The students had been learning about ants, and read how they store seeds. However, they signed the word *store* as the place of business, a noun, instead of the verb. Meg said she explained to them the dual meanings of the word *store*, and that in this instance the sign for that word was also the sign for *save* (Training B, January 12, 2010). The students objected to this explanation, saying they knew the word meant a place to buy things; their emphasis on the one sign for each English word—a staple of SEE—interfered with the conceptual meaning of words and sentences. But Meg's main concern was that the students had not registered that the phrase they signed did not make sense.

In addition, Meg commented that the students' concept of reading was identifying words. For example, when her students read independently, they identified individual words by signing them, but did not appear to put forth effort to make meaning among them. I observed several students reading to themselves in this manner, without stopping at punctuation at the end of sentences; the result was a haphazard rambling of signs in quick succession, which I could not follow. We were both worried that the students did not understand the meaning of the text and appeared unconcerned about their lack of comprehension.

Meg described this word-for-word reading—without comprehension—as painful to watch, and acknowledged it was one of the hardest issues for her teaching. She asked for suggestions that could help students make the transition from identifying individual words to comprehending the meaning of those words in total. We agreed that some un-teaching of previously learned behaviors was necessary. I suggested Meg model appropriate reading behaviors, in the following way: first conduct a story signing using dialogic reading methods. Then, because the text itself was at a frustrational level for students, re-write the text using words they knew and could read. Display this text on the whiteboard using an ELMO machine, and then read together, signing words and discussing—in ASL—why certain signs were used and what the sentence meant.

To begin this “re-teaching,” I suggested Meg use only words they knew in her text, so the focus could be on comprehension, instead of adding a layer of complexity with determining meanings of unknown words. (This, I noted, would need to be added later, but only once students were more cognizant of the need to understand.) I explained to Meg that she would need to model this sentence-by-sentence reading, by asking meanings of words, using correct conceptual signs, stopping at ends of sentences to make meaning from the previous words and re-reading the sentence using ASL. I also recommended that she be very explicit with students in their abilities, by complimenting them on their ability to identify words, but explaining that now they needed to focus on figuring out what those words mean together. Meg would need to be the model for this,

so they could see that this was the ultimate goal of reading. After working on the text Meg had re-written together, she could then ask students to read it independently. Meg acknowledged that she needed to do more of this explicit teaching, saying, “. . . I think once I've signed the story, it would be better to directly teach more of the English phrases or sentences within the story. I think, I haven't directly taught a ton of ‘This is what this means’” (Meeting B, February 1, 2010). She also commented about how she needed to be strategic in identifying and choosing the topics for that direct instruction. I acknowledged that this type of modeling and discussion would require much effort from her and would be painstakingly slow. The issue of time was a big concern for Meg, but she agreed that students needed to make sense of the printed story, and that would be easier for them if she made the text more accessible.

Meg had a legitimate concern with the strategies I offered. She feared that in reading the sentence word for word, she would be reinforcing features of Signing Exact English, which she felt had already interfered with students' comprehension. My counter to this fear was that identifying the individual words was only the *initial* part of the reading. Meg needed to then model how she made meaning of the words and how she corrected herself if she needed to use a different sign (for example, *store* as a place of business versus *store* things in a place.) Also, when students were reading independently, I felt it was important to have them sign the words so that she could notice and they could identify when a word was misread. In support of this, I brought up an example from my observation the previous week. Garrett had been reading independently about a river, but signed the phrase *the water is running* as *the water is jogging*. Meg caught this incorrect sign, and stopped Garrett, teasingly asking him if the water jogs in races. He laughed, and corrected his sign after Meg provided it. Meg recognized that Garrett would not have stopped reading except that she had interrupted and she was frustrated by that fact. I added that for the purposes of re-teaching reading, her job currently was to do just that, to help him when he did not know he had made a mistake. But also, for their reading progress, students needed to become more actively involved in and aware of their reading. In Meg's modeling, I encouraged her to ask, “We know this word has different meanings and different signs, how is it used here? Does what I've signed make sense?” Our goals were for students to make meaning of the sentence, to become aware when they were not understanding, and to take action in order to make meaning. Meg and I discussed strategies she could model and teach when students did not comprehend, which included stopping to re-read, using context clues, finding another resource, and asking for help.

Meg and I decided that she would observe me conducting a story signing and a reading lesson based on that story, in the hopes of clarifying some of the strategies we had discussed. Meg chose a book for me to read, and I developed a summary for the reading instruction and follow-up questions as additional literacy activities.

**My modeling of a story signing.**<sup>25</sup> The following week I conducted a story signing with the students, which lasted for 36 minutes. Meg had chosen the story *A Very Special Friend* (Levi, 1989) about a young girl who befriends a new neighbor, who happens to be Deaf. I had pre-read the story, so for the reading I skimmed the pages again, placed the book on my lap as I described the content, and then showed the

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<sup>25</sup> (Video: Jaci, Friend Story, 2-9-10)

illustrations. The students had not read this book before, and Garrett asked if it was fiction.

When the main character was introduced, I fingerspelled her name, Frannie, and explained that it could be a boy or girl's name, but in this case it was a girl. I then wrote the name on a small white board in front of me on the table. I told the students we would read about her over the next few pages, and then they could choose a name sign based on her characteristics, which is an aspect of Deaf culture (Supalla, 1992). After a few pages, they assigned her a name sign based on her curly hair.

Throughout the lesson I attempted to incorporate features of dialogic reading, including asking students open-ended questions ("Why is Frannie sad and crying?" "How can Frannie learn sign language?"), asking distancing questions, which aim to connect the story to personal experiences of the students ("How would you feel without friends?" "Have you ever moved? How did you help get ready for the move?") and allowing time for comments, predictions, and questions by students ("Can they bring the dog to their new house?") I also tied their comments and answers back to the story. For example, after Garrett described his previous moving experience, I connected that back to the character, Frannie, explaining that she did not understand what a moving truck was for and needed her mother to explain.

In addition, I checked for basic comprehension (referring to a picture of a moving truck, I asked, "Do you know what this kind of truck is for?") I also clarified signs and their meanings. For example, my sign for *truck* was different than the one the students were familiar with, so I explained that my sign was commonly used in another part of the country. Also, when describing the moving truck, I used the sign for furniture, and asked if they understood what that meant. They did not, so I explained it was a collective word for the beds, chairs, tables, and televisions for the house; I offered the word *fruit* as another example. Garrett asked me how to spell the word *furniture*. I complimented him for his good question and then wrote it on the small white board in front of me, fingerspelled it, and explained it again.

I also needed to manage the visual communication for the students. For instance, I asked a question about why Frannie was excited, but Naseer missed the correct explanation given by a student, so I asked another to explain the answer. This redirection and repetition was necessary several times throughout the lesson. In addition, I repeated several comments by students to the group myself to ensure students had accessed the information.

**My modeling of a reading lesson.**<sup>26</sup> The next day I taught a reading lesson, using a summary I had written of the story signing. I attempted to model several of the things Meg and I had discussed in our previous meeting, including stopping to re-read a sentence and changing it into ASL, modeling comprehension strategies, and determining the multiple meanings of words and which was appropriate for the sentence.

Using ASL, I began the lesson by explaining that we would be reading about the story *A Very Special Friend*. One student, Yasminah, had missed the story signing the previous day because she had been in speech therapy. I asked Mona to provide her with a summary of the story. Mona and I told students to watch this description, and Garrett and I assisted Mona with fingerspelling. At the appropriate time in Mona's summary, I

commented that during the story signing the day before, the students had good ideas for how Frannie could learn sign language, and, in an effort to engage all the students in the discussion, I asked them to share those ideas with Yasminah. This summary and discussion took six minutes.

Next I explained our activity for the day, stating that we would read a summary<sup>27</sup> of the story together, which was now displayed on the board using an ELMO. I told the students how I noticed they were able to identify many words, and complimented them on this, but relayed that I wanted them to think about what the words meant altogether. I explained that I wanted to practice reading with them, explicitly stating that we would read the words, stop at the end of sentences, and then go back to figure out meaning.

Only the first short paragraph was displayed on the board, which read, *Frannie did not smile. She was sad and lonely because she did not have friends.* I asked the students to sign/read as I pointed to the projected text. I stopped moving my finger at the end of the first sentence, but they continued on to the next one. I cautioned them not to only identify words, but to think about what the sentence means. We engaged in a discussion about the different meanings of the words *lonely* and *alone* and their relation to the word *one*.

I then pointed to the next sentence on the board, which read, *Each day Frannie got on her bike to look for friends in her neighborhood.* The students signed the words, and I stopped moving my hand when we got to the period. Naseer, however, continued into the next sentence. When he realized what he had done, he threw his hands into the air and looked frustrated with himself. I asked him teasingly if he was mad because he had not stopped, and he blamed the very small period. Again I explained that reading word for word does not make sense, so we need to read in a different way, and offered to model. I pointed to the first two words of the sentence, which the students signed as two distinct words. I got their attention and told them to sign them together for the concept *everyday*. I complimented them again that they knew the words, but emphasized that once the words have been identified we need to figure out what it means, and here, these words together should be signed EVERYDAY. Yasminah commented that because they were two separate words she thought they should be signed separately. Meg, who had been observing, responded to her, saying we read the separate English words, but then think about what they mean and sign that in ASL.

I pointed again to the text, with the students signing *Each day* as EVERYDAY in ASL. We continued signing the words of the sentence. Students offered several different signs—none accurate—for *got* in the phrase *Frannie got on her bike*, including signs that meant *arrived* and *received*. I explained and offered examples of these, writing the sentences on the board. A detailed discussion followed, in which I modeled the usage for the different conceptual signs for *got*. We then referred back to the original sentence to determine the appropriate sign to use. We began the sentence again, with me pointing to each word, and they all used the correct ASL sign for GET-ON except for Garrett, who used the sign for *receive*. I pointed to him smiling, and he quickly changed to the sign for ARRIVE. I laughed and teasingly signed, “No! No!” He and the other students also laughed, and then he used the appropriate sign.

We continued reading the sentence (*Each day Frannie got on her bike to look for friends in her neighborhood*), and they again used separate signs for the phrase *look for*. I

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<sup>27</sup> The summary and questions for this activity can be found in Appendix I.

explained that these two words have a unique ASL sign for this meaning of *searching for* something. I asked the students what Frannie was looking for, and they responded that she was looking for a friend, and used the appropriate, conceptual ASL sign instead of the two English words. The discussion of this one sentence took eight minutes.

The lesson continued in this manner for another 19 minutes, during which we read another 12 sentences. These sentences were less complicated to change from English to ASL, but included several discussions around using conceptually accurate signs for English phrases (*too big*, meaning to tall, not too fat; *the truck pulled up to the house*, as *the truck drove and parked at the house*, not the SEE signs which would be *the truck grabbed up to the house*). I also explained the use of body shifts to indicate the various speakers in a conversation, and we reviewed the new vocabulary word, *furniture*, with Garrett offering an explanation.

We continued the lesson that afternoon, with me repeating that the focus not be on individual words but on overall meaning. We reviewed the most complicated sentence from the morning's work, and then re-read quickly the sentences from the morning lesson. I pointed again to those sentences, asking students to use ASL to describe their meaning. This review took six minutes. We then began reading new sentences from the summary, continuing in the same manner of stopping at the end of each sentence, reviewing meaning and the use of conceptually accurate signs, using body shifts within conversation, and comprehending unknown words and new vocabulary. This second part of the summary reading took another 25 minutes.

I had also written 11 questions to accompany the summary, so we next read them together, first word for word, and then changed them into ASL. After reading each question, we discussed the answer. We read the first few together, and then the students came to the board one by one to model the reading of each question and provide an answer. The questions served a variety of purposes, including the following:

- to check understanding of the story (What did Frannie's dog do?)
- to check comprehension of vocabulary (Frannie wanted a friend who was "the right size." What does that mean?)
- to offer open-ended responses (Tell me about Laura.)
- to allow students to offer personal suggestions (How can Frannie learn sign language?)
- to elicit predictions (What do you think will happen in school?)
- to connect the story to the students' own experiences (Who are your friends? What do you like to do together?)

Finally, I passed out the summary and questions to each student for homework. Reading these questions together had taken an additional 23 minutes.

**The issue of time.** In discussing this lesson, Meg stated her concern for the enormous amount of time it took, and the time it took away from other lessons. I explained that working between two languages would always take more time than is required if working with just one. In addition, I felt this explicit teaching should have occurred much earlier in the students' education, and that this re-teaching would require additional time. However, I felt that once the students acquired more meta-awareness with their own reading, that this much time would not be necessary for future lessons. Meg was overwhelmed by the time that was needed for this lesson, but had stated earlier that the purpose of education should not be just "getting through" material, but for

student understanding of concepts and vocabulary (Meeting, January 15, 2010). In one of our final meetings, she commented that she had previously wondered, “Am I wasting their time? My time? Should I be just getting it to them and then not . . . but then it's like, what is that teaching them other than knowledge and me just giving it to them. You know?” (Meeting A, May 4, 2010). Meg said it was “validating” to see the time and effort it took for the reading lesson I taught (Meeting A, May 4, 2010). She acknowledged that it was beneficial to see a model of the hard work that went into helping the students build conceptual understanding and comprehend what they were reading.

**Connections between American Sign Language and English print.** Meg and I repeatedly discussed how to incorporate direct instruction and how to assist students in comprehending the message of the text instead of merely identifying individual words. Meg stated, “. . . that's like my whole goal, for their lives!” (Meeting, February 9, 2010). Meg was very open in soliciting suggestions and feedback for her teaching. For instance, the day I conducted the story signing, she asked a question about how she should conduct the reading. She asked if she should read the entire story first or include direct instruction as she went along. I recommended she focus mostly on the story signing, in order for the students to have an understanding of it in their first language before bringing it to their second.

In subsequent meetings, we further explored how to present new vocabulary. At the beginning of our work together, Meg introduced a new story to the students on Monday morning and then asked them to read the text, but she did not introduce the new vocabulary until that afternoon. The students asked Meg the signs and meanings for many words, which interfered with their comprehension. I recommended that she teach new vocabulary before the students were expected to read them in the text, and offered two means of doing this. First, if there were many words that would also be new to students conceptually, I suggested she introduce these before reading the story. Providing a brief synopsis of the plot line would help situate and explain these new words and concepts within context. Alternatively, I recommended allowing the text itself to introduce new concepts and vocabulary during the reading. This second option, however, did not address the issue of knowledge gaps and delays of most of these students. I also encouraged Meg to choose books that were at an appropriate reading level for the students. Meg had commented that following the grade level curriculum meant there was an enormous amount of new and unknown words for the students to read. She was conflicted and frustrated by the emphasis on a curriculum that did not address the needs of her students.

Meg often used words from reading stories as vocabulary and spelling words for the week. I suggested that Meg determine words the students would be responsible for being able to *read and spell* and those words which they would only need to *read* within the story, and to differentiate these for the students. I recommended she create a list of these words and use visuals to serve as a reminder of their meaning. For example, next to the word *drought* could be a drawing and picture of the word *rain* in a circle with a line drawn through it. The list and visuals could be written and drawn during the vocabulary lesson, and then displayed or copied for individual students during reading. I explained that it was important that the students have other resources besides Meg. In the baseline example of a reading lesson, Naseer raised his hand often for assistance with words, and

did not know what to do when she stepped away from the table. Meg admitted that providing additional resources was a challenge for her, knowing the limited reading level of her students.

I also suggested displaying the text using an ELMO, and then highlighting new words, either by circling or underlining them. Meg liked the idea of using different colors to designate the words they would need for their spelling lists and those words that were just new to the reading. This, in combination with the visual representation, could provide students a more independent way of reading.

During my observations, I would see Meg implement various pieces of the sign to print connections we were discussing. However, in an observation at mid-point in the study, I was distressed to see Meg revert back to her original practices of reading to the students and then presenting them with the text to read independently, with frequent requests by them for the signs and meanings of words. On subsequent visits, Meg again implemented direct instruction for these connections between the two languages. The previous visit that had concerned me, I realized, was the week before spring break, and Meg had been dealing with some important and stressful personal issues at that time. I hypothesized that the cognitive effort necessary to implement these new practices was too much to maintain with these simultaneous stressors. I was encouraged, however, that this temporary setback did not mean she had given up on the implementation of these direct practices.

Meg reflected on how her practice changed while participating in this study, and why. She explained that originally with books and stories, she wanted her students to understand them conceptually: “I just wanted them to understand a new concept or get . . . the story. Get the point . . .” and that in terms of making connections between the print and ASL, she just “ . . . wasn’t there yet” (Meeting, April 13, 2010). She also explained that she did not realize how underdeveloped their first language was. She was disturbed that for most of her students, she was the “first and only exposure to ASL” (Personal communication, February 23, 2011). She explained that in focusing on dialogic reading, she realized that the direct, explicit instruction was also a dialogue. She said discussing what it means to read and how she went about that with her students had become a new and valuable part of her teaching, saying that she had not realized, “ . . . how much I needed to be doing that. Because I was always showing the difference, but I never directly told them, because I was scared” (Meeting, A, May 4, 2010). I was awed by this comment, as it highlights that teachers may know what they should be teaching, but are unaware of *how* to do so.

**Reading by students: Awareness of the purpose.** When I began my study with Meg, she commented that the students’ concept of reading was identifying words. This raised concerns that the students did not understand the meaning of the text; they also appeared unconcerned by their lack of comprehension. After several discussions and my modeling of the reading lesson, Meg noted that having the students stop and re-read text to make meaning from it had become very successful and an integral part of her teaching. She added that she displayed the text using the ELMO much more, so there could be a group discussion around the words and their meanings. She remarked that this discussion was critical to providing them the background knowledge they needed to understand the story, and that she scaffolded upon the concepts throughout the conversation (Meeting, April 13, 2010).

Meg described that her reading lessons involved stopping at punctuation, identifying words and phrases and then considering how best to produce them in ASL, and determining which words were not necessary to sign individually, such as prepositions, like *of*. In particular, Meg said she was working on question words within the sentences, as students previously had no idea the text was asking a question. When she had repeated the question, their answers had been totally off point. She relayed how the focus on question words, and how to answer them, started first with reading the whole sentence, then stepping back to consider the question. She acknowledged that the students were gaining an awareness of what the questions in text meant (Meeting, April 13, 2010).

This student awareness during reading was exciting to Meg. She commented that there was less word for word reading by students, and she would see them, both in group lessons and individual reading, trying to understand the meaning and concepts of the sentences. She described how Yasminah would sign word for word while reading, and then realize that her signs were not accurate. She would laugh at herself, criticize the mistake, and then change to the conceptually accurate sign. After the correction, she would look to Meg to ask, “Did you see me?!” Meg also described how Garrett would engage in word play, purposefully “messing up” sentences to entertain his classmates and Meg (Meeting A, May 4, 2010). Meg was pleased to see this awareness of the flexibility and versatility of words, and hoped those strategies they were using in lessons would be applied by students when they read independently. However, Meg was concerned that when students read books that she had not directly taught, the students did not “understand or ‘catch’ what they’ve misunderstood. You don’t know what you don’t know” (Personal communication, February 23, 2011).

**Changes to Meg’s practice.** By the end of our time together, Meg had integrated several changes to her practice that she felt had a positive effect on student learning. With reading lessons, which had been the main focus of our collaboration, she was teaching vocabulary before expecting the students to read those words in the text. Meg felt she had been doing this prior to our work together, but acknowledged that had not realized how many words were unknown to them until they began reading the text. She was also displaying text on the board for group lessons and discussions on a regular basis. She introduced lessons with a discussion of what students already knew and had read on the topic, asking students questions and expecting answers from all of them. During one of my final observations, she pointed to the text, and then asked students to determine the correct sign for words as well as what the text meant altogether. For example, the text stated that the place an animal lives is called a habitat. Meg asked the students if *called* in this sentence meant *yelled*. One student very quickly responded that it meant *named*. She engaged the students in a similar discussion with the phrase, *cut down trees*, with students laughing as she asked if scissors would be used. Meg followed up the reading lesson with a discussion of what they had just read. She asked some questions to review content, but then also asked for student input on the topic. In this example, they had been reading about endangered animals, so she asked them for suggestions on how to protect animal habitats. Each student was expected to respond with an intelligent answer. When one student was having difficulty thinking of an idea, Meg listed all the previous suggestions (Observation notes and video, May 4, 2010).

With her story signings, Meg had been confident that she was engaging in dialogic reading practices before working with me. However, there were two changes that



seemed important to me. The first change to the story signing was that Meg no longer asked students to raise their hands to comment or answer a question, but encouraged them to just share their thoughts. This seemed important because it differentiated the activity from a lesson and encouraged a more typical conversation. The second was that she no longer asked the students to vote on what language they wanted for the story signing. Previously this had been a long process, where Meg felt obligated to show the students that they could access information better if it was presented in ASL. While she was encouraging their acknowledgement of their needs, she also wanted to empower them to make their own choices in terms of language use. This change, conducting the story signing in ASL without a student vote, indicated to me that the students were well aware of their communicative needs. Meg admitted, however, that she felt pressure from parents, other teachers, her supervisor, and the audiologist to “always” be providing auditory input instead of sign only (Personal communication, February 23, 2011).

These changes may have occurred because of several reasons. First, Meg saw a model of teaching that “validated” the direct instruction and time that was required (Meeting A, May 4, 2010). Through our on-going meetings, we discussed strategies to further incorporate this explicit teaching. Finally, the changes may have occurred mostly because Meg learned *how* to teach reading in a way that met the unique needs of her students.

#### **Summary: Meg**

At the beginning of the study, Meg was already incorporating the discussion aspect of dialogic reading into her lessons and felt this was a strength of her teaching. She specifically felt discussion was important because it allowed students to actively participate and use new language, and also offered a natural way of learning new concepts. However, Meg was concerned by the influence of Signing Exact English on her students’ reading and asked for assistance with direct reading instruction. After watching me conduct a story signing and a reading lesson, Meg raised concerns about the amount of time such instruction required. However, she acknowledged that providing strategies, including determining multiple meanings of words, was important for the students’ reading and she was encouraged by the changes she saw in their reading. By the end of our work together she had integrated this explicit reading instruction into her daily practice, and was encouraged by the awareness students were showing with their own reading.

#### **Summary of Findings Within Cases**

This chapter described each of the four participants and their teaching before the implementation work of the study. Beginning analyses served to highlight areas of focus for the implementation of dialogic reading. The teachers had different obstacles to implementation, which were influenced by the ages and language and literacy needs of their students. Issues that surfaced included the following: facilitating dialogue with students and the difficulties that arose due to their language delays; choosing books to support language development; addressing the conflict between stated goals of the curriculum and the needs of the students; and teaching bilingual lessons by making explicit connections between the ASL of story signings and the English print of text. These issues and adaptations will be further explored and examined within the next chapter across the grade levels and school sites.

## CHAPTER 5: FINDINGS ACROSS CASES

The previous chapter provided context for the four participating teachers and detailed their attempts and struggles with integrating dialogic reading into classroom pedagogy. From the analysis of their audio- and videotaped data, themes emerged across the four cases, and will be examined in further detail here. In particular, this chapter aims to elucidate how the issues presented themselves within the context of grades—and the language and literacy needs of students across those levels—and school sites.

The authors of the previous studies with dialogic reading (which were conducted in hearing preschools with students of low socioeconomic status) identified three impediments to sustainability, which were teacher time for small groups, a difference in philosophy, and the effort required by the teacher (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994). I felt that, in applying this intervention to deaf education, the first two impediments would not be an issue. In discussing teacher time, the authors explained the demands of using small groups for dialogic reading activities, in order to provide students more opportunities to participate. Within the large class size of typical preschools, this required additional staff and volunteers to oversee the activities and behavior of the other students. However, often this was not the case, as other staff members were managing needs of individual students, setting up or breaking down activities, or readying materials. As deaf and hard of hearing (DHH) classrooms are typically very small in comparison (for example, the classrooms in my study ranged from five to nine students) and most likely have at least one additional staff member, this did not seem it would be the obstacle it was in hearing classrooms.

The second impediment researchers identified was philosophy. They felt preschool teachers wanted to foster developmental learning and not engage in explicit teaching during stories. Again, at first glance, this did not seem it would be an obstacle, because I was investigating the use of dialogic reading practices at the elementary level, where both reading stories to students and reading instruction are typical practices.

The third identified impediment to sustainability was the effort required by teachers during dialogic reading sessions. Researchers acknowledged the “hard work” of facilitating and maintaining conversations with students while encouraging their participation and appropriate behavior (Whitehurst, Arnold, et al., 1994, p. 687). I anticipated that this would also be an issue for the teachers participating in the study, especially given the need for teachers to model language, provide necessary background information, and assist and manage the visual communication and attention needs of their students.

Unfortunately, all three of the impediments to sustainability that were identified through previous research were also issues for the teachers in my study, despite my prediction that the first two would not be problematic. Because of the issues of sustainability in previous research, and in order to identify adaptations for DHH classrooms, I wanted to investigate *how* to implement dialogic reading. Specifically, I undertook this study to answer the following questions: What are the adaptations necessary to conduct dialogic reading with DHH students? What impedes implementation and sustainability of this practice? What can be altered or added to assist implementation? In describing the goals of the study to my teacher participants, I explained that I very much wanted them to complain to me: I wanted them to identify

obstacles to implementation in order to make them more transparent. In addition, by identifying those obstacles, I hoped we could find ways to address them successfully.

With this information in mind, I decided to conduct an analysis of my study based on three elements: the previously identified impediments to sustainability, the recommended critical features of dialogic reading, and the necessary adaptations with students who are deaf and hard of hearing. The first section of this chapter will focus on the analysis of the previous impediments; critical features of dialogic reading are subsumed within this section. These features, which were identified through a review of the literature, are the choice of book for the reading, the use of small groups, the teacher's role in facilitating dialogue with students, and active student participation and opportunities for language usage. Despite the fact that my research was conducted with special education teachers, these issues would need to be considered by any teacher attempting to implement dialogic reading.

The second section of the chapter will focus on the analysis of adaptations specifically with DHH students as identified through collaboration with teachers and analysis of audio- and videotaped data. Examples of the previous impediments, critical features, adaptations and problems surrounding them were already introduced in the case analyses of individual teachers in the previous chapter. Using pertinent examples from teachers' work, this current chapter will examine how these issues manifested across the participating classrooms.

### **Teacher Time for Small Groups**

Previous researchers identified teacher time with small groups as an impediment to sustainability of dialogic reading practices. Their work with preschool teachers found that classrooms were often not organized in a way that both adults in the classroom could be teaching simultaneously: "One adult is often in charge of all children while the other adult is preparing materials, doing administrative activities, or dealing with individual children's problems" (Lonigan & Whitehurst, 1998, p. 285). Due to the small size of DHH classrooms, I had presumed that this would not be an issue with the participating teachers in this study; unfortunately, this was not the case. In reality, a great deal of organization, team support, and effort is required to group students appropriately, plan and coordinate simultaneous activities, and communicate expectations and lesson plans to staff, even for these small class sizes.

### **Grouping Students**

Original research on dialogic reading recommended small group sizes "in groups of no more than five children at a time" in order to afford each child an opportunity to participate in the discussion around the book (Whitehurst, Arnold, et al., 1994, p. 682). A later study—also with positive results to language development—was conducted with groups of eight students, as it was thought this group size might be easier for teachers to implement (Hargrave & Senechal, 2000). I was hopeful—but mistaken—that, because of the very small size of DHH classrooms, the use of small groups would not hinder implementation with the participating teachers.

Two of the participating teachers, Erin and Rachel, used small groups consistently within their practice, coordinating English Language Arts activities with other staff. Erin, however, was the only teacher who began to use small groups for dialogic reading during

story signing. After engaging in several full class story signings, she wondered aloud if her group of seven students was still too large. We discussed how their visual attention might improve and their opportunities to use language increase if she split the students into two groups. This raised another question concerning how to group the students. Erin said she tried to place students heterogeneously, with students with more advanced skills in American Sign Language (ASL) in each group to serve as language models for the students with more delayed language; this use of children as language models was also a suggestion from previous research (Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999).

Erin decided to have her teacher aide, Deborah, conduct the story signings while Erin simultaneously taught a literacy lesson; as Deborah was Deaf and a native signer she would be a strong model of ASL. I had conducted the training in dialogic reading with Deborah, but because of scheduling issues, it was much shorter than the training I conducted with Erin. In addition, I often met with Erin during times when Deborah was responsible to supervise the students, so Deborah and I were not able to meet together on a consistent basis for the purposes of discussion, assistance, and feedback. Moreover, these scheduling issues meant Erin and Deborah were not able to discuss and share feedback on their practices collaboratively with each other. Erin provided some written questions to serve as reminders to Deborah, who tended to use these after, not during the story signing, which unfortunately remained an adult-led activity, with students passively watching the story signing.

With the two teachers in special day classes within typical elementary schools, Arielle and Meg, I recommended using smaller groups based on grade level and communication needs. However, neither teacher felt comfortable asking their teacher aides to lead a group. Meg had been previously disappointed that her teacher aide conducted lessons that did not encourage active student participation. After a year of trying, she gave up having her teacher aide lead small groups and instead used her for managerial and logistical work.

In Arielle's class in particular, I felt the use of small groups could help her address the different communication needs of her students, because some relied on sign language while others relied on speech. However, among Arielle's stated frustrations was that, because her teacher aide lacked educational training and knowledge, Arielle did not feel she could depend on her to lead lessons, or even supervise students at center or independent activities. When Shelley left mid-year for a new job, Arielle was given substitutes who often did not know any sign language. Arielle felt very alone in her teaching and singularly responsible for the students' progress.

### **Coordinating Simultaneous Activities and Communicating with Staff**

The use of small groups requires a great deal of forethought and effort: teachers must consider what activities need to occur prior to the small groups, determine student groupings, and plan the progression of small group activities so information is building on previous lessons. Arielle and I discussed this process several times. As a first year teacher, however, this effort was too much in addition to her other responsibilities; she recognized that she was not yet organized enough to plan for and teach in this manner. Indeed, she found it easier to prepare and execute one lesson with the whole class of nine students instead of planning for two simultaneous activities. At the end of my study, a

new teacher aide had been hired for her classroom, and this consistency afforded her the opportunity to conduct small group lessons. However, she continued to conduct story signings/read alouds with the whole class, stating she did not have time to engage multiple groups of students for this activity and retellings in addition to the demands of the curriculum.

Erin, a first grade teacher with seven years of experience, also had issues with using small groups, even though they were a consistent part of her practice. She explained how she wanted to provide a teaching model to her aide, Deborah, who did not have any formal educational training. To do this, Erin needed to conduct lessons with her full class before breaking into smaller groups and having Deborah lead one independently.

The use of small groups in this situation also led to another issue, that of communication between classroom staff. Erin admitted she could not offer feedback or guidance to Deborah on her teaching, as they were simultaneously working with different groups of students. Erin was unable to make sure Deborah was conducting the lesson with the strategies and techniques she intended, and was not sure how Deborah was engaging the students. When I suggested planning weekly times for them to review lesson plans and goals for students, Erin stated that they had attempted this, but their schedules made a consistent time difficult, often resulting in very quick communications between them before lessons.

Specifically with dialogic reading, Erin wrote questions for the story signings, but did not know if or how Deborah was integrating them. In one classroom observation, Deborah read a version of *The Three Pigs*, following the text closely and rarely asking questions. She finished this story signing well before the allotted time, and interrupted Erin, who was teaching a grammar lesson, to ask what she should do next. Erin suggested having the students retell the story. This led to a very active and engaged conversation between Deborah and the students that was much different than the story signing itself. Deborah and I discussed this lesson afterwards, identifying that the retell was very dialogic in nature, whereas the story signing had been a teacher-led activity. She said she felt compelled to follow and not expand on the text. She acknowledged how the conversation that ensued with the retell provided the students many opportunities to use their language, and was a much more enjoyable activity, seemingly for all, than the straight story signing.

### **Teacher Time for Small Groups: Summary**

The issue of teacher time for small groups that surfaced with original research in dialogic reading was still an issue for the teacher participants in this study, despite the small class size. Planning time was necessary to determine the activities that needed to occur prior to small groups and to organize the progression of small group activities in order for information to build upon previous lessons. The use of small groups depended on reliable and capable staff; two teachers in my study were unable to use small groups because of this issue. Teacher time was also necessary to model teaching of lessons as well as for communicating plans and goals for lessons to teacher aides. A great deal of organization and effort was required to group students appropriately, plan and coordinate simultaneous activities, and communicate goals and expectations to staff. The teachers in

my study experienced a variety of problems that limited their ability to do so, despite the obvious and acknowledged benefits to students.

### **The Issue of Philosophy**

Teachers' philosophy of development and learning had been an impediment in previous research, and it surfaced as well in my study, albeit not in a way I had expected. Lonigan and Whitehurst described how the preschool teachers in their research had been reluctant to engage in activities to build specific skills, which they felt were "the function of the school system" (1998, p. 285); they felt their own role was to facilitate developmental learning through play and natural social situations and that explicit instruction should occur at the elementary grades. As I was bringing this intervention to the elementary level, I thought this would not pose an issue. However, I found a different problem. It seemed the teachers felt the language learning of their students should have already occurred and that their role as educators was to focus on academics. Despite the fact that each of the participating teachers described the delayed language development of their students as a major issue, they acknowledged that they did not have the tools to address it within the classroom, especially considering the demands of the curriculum. Erin stated it this way: "Yeah, it's a struggle because they're not necessarily ready to be reading. Because they don't have the first language skills, . . . But at the same time, that's what we're supposed to be doing!" (Meeting, March 18, 2010). Typically, language is well formed by the age of three or four (Bates, Thal, & Janowsky, 1992) with preschool offering opportunities to further develop linguistic complexity and fluency. By the time children arrive in elementary school, the focus shifts to building academic knowledge and skill, specifically with literacy.

Primary language development is critical for educational success (Cummins, 1981). Deaf and hard of hearing students often do not have a strong first language base in ASL upon starting elementary school, and then learn a second language, English, for reading and writing. Research with bilingual hearing students indicates that teachers feel they build language skills throughout the day within each subject. In actuality, they are not incorporating specific and explicit instruction to build vocabulary and further language development (Saunders, Foorman, & Carlson, 2006). I hypothesized that the teachers in my study would need to spend time facilitating language development, especially considering the limits of communication within their students' families. However, the concerns of these teachers were mismatched to the pedagogy they enacted: because they did not know how to address the language delays, they followed the curriculum guidelines, which they recognized were at a level well above their students' linguistic and academic capabilities. This issue of philosophy, in terms of furthering linguistic development and conducting academic instruction, surfaced specifically around the choice of books and the interrelated topics of reading for different purposes and the use of the curriculum.

### **Reading Books for Different Purposes**

Research supports the idea of reading texts for different purposes, for example, reading books *to* students, reading instruction *with* students, and independent reading *by* students. Parents and teachers read books to young children that are above the child's expressive language capacity; reading in this way provides a sophisticated model of

language, instills motivation that promotes further reading, and fosters cognitive, linguistic, and vocabulary development (Cunningham & Stanovich, 2001; Dickinson, McCabe, Anastasopoulos, Pesiner-Feinberg, & Poe, 2003; Schleper, 1996; Whitehurst, Arnold et al., 1994, Whitehurst, et al., 1999). Reading instruction occurs in the primary grades to teach vocabulary, phonics and decoding skills, and comprehension strategies, which leads to independent reading by students.

While reading instruction is an integral part of the curriculum, reading to students continues to be a recommended practice throughout the elementary grades (National Academy of Education, 1985; Fountas & Pinnell, 1996). Because of the communicative mismatch between DHH students and their parents, students often have very limited experiences with books and therefore still need books read *to* them for the above stated reasons. For the purposes of my study, I encouraged teachers to choose narrative books for story signings (reading *to* students) and either adapt these texts to an accessible level and/or use curriculum texts at an appropriate reading level for reading instruction *with* students. However, all the teachers in my study wanted to read a story *to* their students, which the students would then be able to read themselves. While all four teachers in this study acknowledged the language delay of their students, there seemed to be a disconnect or lack of understanding about the importance of a proficiency with language before the introduction and expectation for actual reading *by* students. The goals of helping students develop their language while teaching them literacy appeared to be in competition for all of my teacher participants. Therefore, we discussed the separate goals for reading *to* students, reading instruction *with* students, and independent reading *by* students.

As described in the section about Erin, one of her biggest issues with implementation was with the choice of books. She was very focused on the literacy learning of her students, but that learning seemed to take a higher priority than their need to develop more proficiency with expressive and receptive language. Erin was intent on helping students connect what they saw of stories in ASL to the English print. She presented books first as a story signing, and purposefully chose books with text that had more accessible print for her students. However, this was problematic because the language that the students could access in a reading lesson was very limited, and did not afford the opportunity for much detailed or expanded discussion, which is the goal of dialogic reading. Erin tried to engage students using questions and prompts, but the repetitive and simplistic nature of the text prevented success.

After trying dialogic reading with two repetitive texts, Erin took my suggestion to use a more narrative story, choosing the classic *Corduroy* by Don Freeman (1968). She asked her teacher aide, Deborah, to conduct the story signings in order to provide a sophisticated model of ASL to the students. I had recommended this book for a story signing for reading *to* students, and asked her to adapt the text for reading instruction *with* students, where they could learn some written vocabulary and simple sentences at an appropriate and accessible reading level. However, Erin did not find the time to make these adaptations, so she presented the full text to the students. Despite the fact that the students were between the ages of six and eight, they were linguistically at a two to three year old level and thus developmentally incapable of reading such text. In fact, Erin had told me that when assessing students at the beginning of the year, the highest performing student had been able to identify only four words from a preschool high frequency word list (Meeting, February 23, 2010). As noted in the previous chapter, Erin struggled with

the competing pressures to address the language needs of her students and the objectives of the reading curriculum simultaneously (see pages 55 and 63).

### **Responsibility to the Curriculum**

All four of the teachers felt their responsibility to the curriculum conflicted with the needs of their students for further language development. Rachel commented that her school offered teachers a freedom in choosing books for story signings and instruction, but she also felt “highly encouraged to use the curriculum books” (Meeting, February 23, 2010). She added that the stories in the curriculum were not enjoyable or motivating. Arielle described stories from the curriculum as “irrelevant” (Meeting, May 11, 2010). She, in particular, felt a responsibility to follow the recommended pacing guides as several of her students were mainstreamed into other classrooms. She said that this pressure did not allow her time to engage much with stories that were supplemental to the curriculum.

Meg also felt pressure to teach to the curriculum, especially because her students were older, in the fourth and fifth grades, and were supposed to be past the stage of learning how to read. Meg admitted, however, that the texts within the curriculum were at a frustrational level for them, saying, “. . . it's overwhelming because they don't even understand, they're missing 60, 70% of the vocabulary in there” (Training B, January 13, 2010). I was concerned that this text was beyond the frustrational level and perhaps completely inaccessible to the students. This may also have explained a problem with the independent reading by Meg's students, who merely identified words instead of trying to comprehend the meaning of the text; students will not be successful in comprehending text when there are so many words unknown to them.

To address the language development and literacy learning of her students, I suggested to Meg that she read chapter books *to* students, and then use curricula—at an accessible level—for reading instruction *with* students and independent reading *by* students. In addition, I predicted that students would be more motivated for reading and writing activities associated with the engaging chapter book, and recommended she make adaptations to that text so students could access it for literacy activities.

### **The Issue of Philosophy: Summary**

The stated concerns of the teachers for their students' language delays were mismatched with the pedagogy of their classrooms. Teachers admitted that they did not know how to address these delays and felt pressure to follow the curriculum guidelines, despite the fact that they were above their students' linguistic and academic capabilities. The competing pressures of fostering linguistic development and furthering academic knowledge and skill appeared with the choice of books; the teachers and I negotiated choosing books for the separate goals advanced in reading *to*, *with*, and *by* students, but unfortunately not to the level of success I hoped for or expected.

### **Teacher Effort with Dialogic Reading**

The third impediment to the sustainability of dialogic reading with previous research was the “hard work” it required of teachers (Whitehurst, Arnold et al., 1994, p. 687), who were responsible to “. . . carefully attend to individual children, provide instructive feedback, and manage the group dynamics” (Lonigan & Whitehurst, 1998, p.



265). I expected that this would also be an issue for the teachers in my study, especially given the need for teachers to model language and provide necessary background knowledge. In addition, the visual communication needs of students necessitated that teachers take on an active and physical role to assist and manage their attention.

Language proficiency is necessary for conversation. Because the students in this study all experienced language delays and lacked conversation partners at home, the teachers needed to exert additional effort above and beyond that required by dialogic reading. These additional responsibilities included the following: modeling and facilitating conversational and turn-taking skills, explaining new vocabulary, and describing new concepts. This was most evident with the youngest students, who were most lacking in conversational experience.

### **Teacher-Student Interactions for Dialogue**

Student difficulty with questions was evident throughout all the grades within my study, but was most obvious with the youngest students. Because family members were unable to communicate well with their deaf children in sign language, Erin hypothesized that her first grade students did not have much experience with questions and were unclear as to how, when, and why to respond to them. Erin said that questioning students was “like pulling teeth,” and the students often responded with blank stares, head nods and smiles, or an answer that was totally unrelated to the question (Meeting, March 23, 2010). In an example in the previous chapter, Erin worked with Desiree for three minutes to answer a question about lightning (see pages 59-61). Erin utilized a variety of strategies to help students answer her questions including providing them more information, giving them a limited number of choices, and asking in a different way. She was also particularly good at pausing and giving the students time to consider their answer before responding, which is a recommendation from previous research with dialogic reading (Crain-Thoreson & Dale, 1999).

Erin and I discussed her recommendations for adaptations to dialogic reading with DHH students. In addition to rewording questions, she suggested “telling them the answers, and then backing up and asking it again” (Meeting, April 27, 2010). She felt this modeling was important, and that students needed to be clear that an answer was expected before continuing with the story.

Erin also commented that the completion questions with dialogic reading were difficult with DHH students. Completion questions with hearing students rely on vocal intonation to indicate that a student response is expected. However, this does not translate to ASL, where direct questions are asked and completion questions would be signed into *wh*-word questions. This warrants further investigation, as it may need to be removed from the dialogic reading coding system with DHH students due to a cultural and communicative difference.

The dialogue within Erin’s class was awkward and required effort because of the low language levels of students. Meg’s fourth and fifth grade students had more advanced language, which afforded more ease with communication and conversation. She found that dialogue was an integral part of their learning, explaining, “. . . it’s like everything else kind of falls into place because they’re asking the questions, they’re doing what I wanted. They’re accomplishing my goals just by dialogue. So I really like that” (Interview, December 10, 2009). She felt this natural conversation was a way for her to

provide them the background knowledge and vocabulary they lacked, but was concerned by the amount of time these conversations took, acknowledging that they did not feel quite as academic as lessons with typical students.

In addition, Meg stated that her students, “. . . still don't know the answers to the basic questions” (Meeting, December 1, 2009). She described how she used conversations to ask open-ended questions and have the students make predictions about stories. She used these conversations to introduce their writing work, but added that she needed to be very clear about the answers that were expected for *wh*-word questions in the activities, for example explaining, “Who means your answer must be what? A person.” and “When you have a ‘when’ question, your only answer can be what? A time” (Meeting, December 1, 2009). Meg felt this review of concepts focused the students on the questions and aided their success with the literacy task.

### **Teacher Progression with Dialogic Reading Practices**

I had originally planned to monitor teacher fidelity to dialogic reading practices. However, the teachers experienced so many obstacles that they did not achieve the level of fidelity I had expected. In spite of this, I do think their efforts and progress with implementing these practices should be recognized and described. For each teacher, I reviewed videotapes of story signings at different time points within the study, and coded those for language use, based on aspects of dialogic reading (Pearson Early Learning, 2006; see Appendix D) and typical categories of interactions, which were adapted from Whitehurst and colleagues (1988; see Appendix E). The dialogic reading coding form included teacher communications to further students’ language use (Prompt, Evaluate, Expand, and Repeat. Prompts include the following question types: Completion, Recall, Open-Ended, Wh-Word, and Distancing questions.)

Individual books offer unique opportunities to use specific question forms; this should be recognized and considered as teachers choose books for story signings. Also, the differences in teacher behaviors may reflect the nature of the book and the questions and discussion that emerge from it, and may not be an accurate representation of their progression with dialogic reading strategies.

**Erin.** I reviewed two story signings by Erin that occurred one month apart, at the beginning and mid-point of the study, and each of these books had repetitive text (Video: Napping House, February 23, 2010; Video: Little Cloud, March 18, 2010). I was unable to code a story signing by Erin at the end of the study because she had by then asked her Deaf teacher aide, Deborah, to lead the story signings.

Erin reviewed the books before she conducted story signings and as a reminder to herself wrote the questions she wanted to ask of students. Previous researchers had also used written cues for parents and teachers (Fung, Chow, & McBride-Chang, 2005; Whitehurst, Epstein, et al., 1994). As described in the literature review, I was concerned that these cue cards with prescribed questions could inhibit student participation and natural language and dialogue. Erin said she felt they helped focus her on engaging the students. However, after seeing me model a dialogic reading session with three of her students, she criticized herself, saying that she had been too formal in her questioning, and had not let the story guide her or the students to comments and questions.

Erin progressed in her use of prompts with the second reading. In particular, she asked many more *why* and *distancing* questions in the second reading. In fact, she more

than tripled the number of *distancing* questions, which aim to connect the book with the students' lives. Of all the teachers in this study, Erin struggled the most with students' difficulty in answering questions, probably because hers were the youngest and most delayed in their language. Despite these frustrations, she maintained a professional and patient demeanor with students and was very encouraging of their responses. To her credit, Erin used the most number of positive comments with her students, totally 21 and 22 statements of praise in the respective story signings.

**Rachel.** Rachel experienced many scheduling difficulties and was not able to implement story signings using dialogic reading practices often, so I did not feel it was appropriate to review her videotapes and analyze data for improvement. However, she did make several comments that I feel are worth repeating. First, she commented that while she was feeling more comfortable using prompts and questions with students, she was not sure if she was "doing it right" (Meeting, March 18, 2010). I encouraged her to focus on getting students actively engaged in discussion, and regardless of the prompt or question she had used, if that occurred, she had been successful. By the end of the study, she recognized that she was more comfortable with allowing students to lead the discussion. Originally she been nervous that students would go off topic, but realized that they "just like being able to talk about [the book]" (Meeting, April 28, 2010). Rachel also voiced a concern for engaging students with question types that were most appropriate for their individual language levels, but found that it was too difficult to remember this information while trying to negotiate the story signing and discussion simultaneously.

**Arielle.** Like Rachel, Arielle had numerous difficulties that made analyzing her use of dialogic reading practices difficult. Specifically, as a first year teacher, she had limited teacher training, beginning sign language skills, diverse and conflicting communication needs of students, and a teacher aide who could not assist with instruction. She said her situation was like working "in a constant state of fog" (Email Communication, February 13, 2011). However, because she engaged more consistently in story signings/read alouds than Rachel, I did review three of her videotapes, which occurred before the study began, and at mid- and end points (Video: Inside-Out Grandma, December 15, 2009; Video: Cat Fire, March 10, 2010; Video: Arthur's Eyes, April 21, 2010).

With her first videotape, Arielle used many *yes/no* questions; this reduced somewhat over time (from 37 with the first video to 30 with the last). Also in the first video, her use of explanations had interfered with the flow of the story, and these were also reduced, but fluctuated (34, 13, and 22 with the respective videos); the choice of book was influential with this coding category. In contrast, though, she greatly increased her use of *why* and *distancing* questions (from 1 to 8, and 8 to 16, respectively). By the end of the study, she was also confirming students' responses, whereas she had previously not responded to their comments or questions because she found it distracting.

**Meg.** Meg felt that fostering discussion was a strength of her teaching, so I was not sure if a review of her practice would reveal any changes. However, I analyzed three of her videotapes, which, like Arielle, occurred before the study began, and at mid- and end points (Video: Dragon Tales, January 13, 2010; Video: Ant & Dove, March 8, 2010; Video: Habitats, May 4, 2010).

Meg greatly reduced her use of *yes/no* questions during the course of the study (30, 18, and 4 respectively). However, with the first reading in particular, she had used

*yes/no* questions in conjunction with open-ended questions. She would first ask the open-ended question, and then provide an example for the students as a model, which was often silly or inappropriate, and served to clarify the correct response for students. She would then follow up her example by asking *yes/no* questions, and then repeat the open-ended questions, for which she expected a response from students. The use of *yes/no* questions embedded within the open-ended questions was a technique she used to help students respond to the more difficult questions. She also greatly increased her positive comments to students, from three comments of praise in the first reading to 16 in the last.

As the study progressed, Erin, Arielle, and Meg all spent less time connecting the signs to print during the story signings (Erin: 11, 5; Arielle: 10, 5; Meg: 7, 1). I consider this change a potential indicator that teachers were recognizing the separate goals for different literacy activities: language development for story signings *to* students and reading instructional activities *with* students. This change could indicate that teachers were focusing more on the dialogue with students and the language goals of the story signing activity.

### **Teacher Effort with Dialogic Reading: Summary**

The third impediment to the sustainability of dialogic reading was the effort required of teachers. Of the three impediments identified by previous research, this was the only one I anticipated would also be problematic for the participating teachers. In particular, I expected that the need to introduce new vocabulary and concepts would require additional and significant effort by teachers. This additional effort—specifically engaging language delayed students in discussion through questioning—and other obstacles hindered their fidelity to the implementation of dialogic reading. However, through a review and analysis of videotaped story signings, I did identify positive changes to their practices which included the following: a reduction in the use of *yes/no* questions, an increase in confirmation of student responses, an increase in the use of more complicated questions, and an increase in questions that connected the story to the students' experiences.

### **Additional Teacher Responsibilities:**

#### **Supporting the Visual Attention Needs of DHH Students**

In addition to the responsibilities of teachers to facilitate conversation and engage students in active participation during dialogic reading, teachers of deaf and hard of hearing students have additional responsibilities. The first of these adaptations is to manage the visual attention needs of their students. This is not as easy as it may seem: sign language requires visual attention for conversation, language learning, and concept development. (Unfortunately, at least one teacher thought immaturity, boredom, Attention Deficit Disorder, or another disability were the reasons for the students' difficulties with attention, and did not consider their visual communicative needs). This visual attention places a physical demand on students, and requires teachers to have an active and physical role in supporting that attention. Teachers must manage student attention to themselves, the teacher, during the story signings, must direct turn-taking behaviors and attention to students who are asking questions or making comments, and often need to repeat comments or questions of individual students to the entire group to ensure access.

Three of the participating teachers considered maintaining this visual attention a very difficult aspect of their work, with Meg commenting, “The attention part is just really, really hard” (Meeting, January 7, 2010). Rachel described how her second grade students distracted each other during story signing, and their side conversations meant that their attention was completely off the story. She stated:

I think it's hard, just hard keeping all their attention at the same time. That's like sometimes my biggest frustration. And then sometimes having to go back again and read it because they missed it. Or if I know one kid missed it, I'll sign it again. (Meeting, February 23, 2010)

Sometimes the teacher repeated student comments or questions, but often teachers got the attention of the group and then asked an individual student to repeat their question or comment. Repetition was necessary to ensure that all students accessed the information, regardless if it came from the teacher or another student, and was an obvious part of teacher practice throughout my observations.

Teachers admitted feeling pressure because the students were delayed developmentally and academically, and felt additional stress to maintain their attention for learning. Erin acknowledged that her students often did not know information, not because they could not process or understand it, but simply because they had not attended to the information when it was presented in ASL. She stated, “Attention is always a challenge . . . sometimes I'm signing something, and I look around, and I'm like, ‘Not one of you is looking at me!’” (Meeting B, April 27, 2010).

In a study on interactive sharing reading, researchers and teachers discussed and modeled strategies for maintaining student attention to the teacher and peers (Wasik & Bond, 2001). Likewise, the participating teachers and I discussed strategies to support the visual attention of their students. The most common attention getting strategies were hand flaps and touch, both very common elements within Deaf Culture. Rachel and Meg in particular used means to redirect students that did not interrupt the flow of the conversation or story signing, such as gently touching students who were not attending while watching the signed comment of another student.

### **Seating Arrangements for the Story Signing**

During my initial observations, all four teachers conducted story signings with the students seated at their desks. The desks created a physical distance, making it more difficult to regain students’ attention using touch. I recommended, especially with the younger students who were inexperienced with books, that teachers do story signings on the floor. I conducted a story signing with three of Erin’s first grade students, during which we sat together on the floor. Even though it was a very small group, it was still necessary to touch each student numerous times throughout the reading to regain their attention, either to me or to another student. In addition, they touched me to get my attention to their question or comment. However, this did mean that in addition to encouraging dialogue and engaging the students that I was required to take on a very active role in maintaining student attention to each other and myself. Again, this was much easier to do because of our close physical proximity.

I also recommended sitting on the floor for story signings because I felt it could help teachers and students differentiate between the goals of reading activities. Reading instruction occurred at their desks and participation involved them raising their hands. During lessons, raising hands is appropriate, but it is not a natural aspect of conversation. During my reading with Erin's students, it was not necessary for students to raise their hands because we were sitting closely together. I suggested explaining to the students that there were different behavioral expectations for these activities, and that during story signing on the floor, they were expected to ask questions and participate in the conversation without raising their hands.

Rachel began to sit with the students on a rug for story signings, and commented that it did help her focus on the separate goals of the activities. I had previously commented to her about my own teaching experience and conducting story signings on the floor: I could tell if students liked a book because they kept moving closer and closer in order to touch me for my attention to their questions and comments. After one story signing in particular, Rachel commented about how she noticed the students moving closer to her for the same reasons. She added how she was excited to see their engagement and enthusiasm and felt the conversation around the book was more natural because much of it came from the students themselves.

### **Pre-reading the Book**

Another attention issue that arose during my study was the need for teachers to reference the text during a story signing, inadvertently losing the visual attention of the students. Erin described it this way:

I think that everything seems to take a little bit longer with our students. You know? Because it's like, you're pausing to read the text, and processing it yourself, and then signing it, but then you're also waiting for attention a lot of the time.  
(Training B, February 18, 2010)

All teachers should be familiar with books before reading them to students, but this comment highlights the necessity to do so with DHH students. Additional preparation time is required for teachers to review and know the plot so that they can merely reference the text during the story signing. Arielle and Meg were both very interested in allowing students to choose books for this activity. I encouraged this, but suggested that they present a choice of books that they were familiar with for reading that same day. I also recommended allowing the students to choose books for reading the next day, which afforded the teachers time to pre-read the book. Both of these options allow students to choose books, but ensure that teachers are prepared and know the story well so that brief glances to the text will not result in the loss of students' visual attention.

### **Holding the Book**

Because of the visual attention needs of DHH students, displaying the book during story signing means the students' attention is split between the book and the signing of its content. For younger students, this can be challenging, especially when the books have detailed and engaging illustrations. Most of the teachers in my study showed the pictures before or after sharing the contents of the page, placing the book on their lap

or the table while they signed. However, Erin acknowledged that how she held the book during story signings was not a conscious decision, and said sometimes she rested the book up against her torso in order for students to see the pictures and signs simultaneously, but that it was physically awkward to do so.

Teaching students how to visually scan is important, and becomes easier as they are more accustomed to and familiar with story signings. I recommended to the teachers to have a team member or another student hold the book during the story signing. The teacher could gently push the book down if student attention was too focused on the illustrations and not the signing. I did not see this adaptation occur in any of the classrooms during my study, but Erin said she and her team teacher did this during the once weekly scheduled story signing they conducted together.

The most salient example of the problems associated with holding the book emerged from the analyses of Arielle's teaching (see pages 75 and 77). Her situation was unique to my study because the language and communication needs of her students were so diverse. Teachers in typical elementary classrooms hold the book while they read the text aloud. Arielle had good intentions in offering her hard of hearing students this same opportunity to hear and see the text simultaneously. However, because she was holding the book and signing at the same time, it resulted in inaccurate or unintelligible messages for the deaf students. Later, she acknowledged the problems that arose from holding the book while signing, and said, "Yes, now I hide it [the text] and show the pictures later as recommended" (Email communication, February 13, 2011).

### **Supporting the Visual Attention Needs of DHH Students: Summary**

Three of the teachers in my study described attention issues as a real challenge to their teaching: there is a physical demand on DHH students to visually attend that requires physical attempts by teachers to maintain and regain their attention. In addition, teachers are responsible to focus students' attention to the turn-taking behaviors that occur in discussion around books. Specific adaptations by teachers are necessary in order to facilitate appropriate attention during story signings and include the following: seating students so they are in close physical proximity for redirection; pre-reading the book; and displaying and holding the book. Students were already delayed linguistically and academically and the issues with attention caused additional pressure for teachers.

### **Additional Teacher Responsibilities:**

#### **Supporting the Bilingual Learning of DHH Students**

Dialogic reading was originally implemented to further the language abilities of hearing preschool students. While teachers were encouraged to conduct additional literacy activities related to the book reading, it was not a major focus, most likely because explicit literacy instruction is not developmentally appropriate at that level. It is, however, both appropriate and expected at the elementary level. For my study, I believed these additional literacy activities would be a critical aspect of the intervention because DHH students often lack experience with print materials and have difficulty with or an inability to access audition for phonology. Students cannot rely on sounds to connect words from the story signing to the print on the page, and require explicit instruction to make connections between the signs and words they see. With my implementation, I intended for teachers to continue to teach reading skills from the curriculum. In addition,

I wanted them to use more complicated, narrative books for story signings, to promote language development, and then use these books to develop supplemental literacy activities, which would involve explicit instruction.

Erin, who taught first grade, very much wanted to make connections between the signs of the stories and the English print with her students. She experienced difficulty, however, because she chose the same book for reading *to* students and reading instruction *with* students. She explained that she wanted to “. . . do something more like concrete literacy. Like I want them to do something with the words, or with sequencing” (Meeting, March 18, 2010). She explained that she did not choose books with complicated text or plot, because then there were too many words at a level too advanced for the students to read. I encouraged her to choose books for story signings that were complex models of language, and then create supplemental activities at the students’ literacy level. She stated, “I think there's a hard balance with that the more basic stories didn't allow for a lot of expansion, but then it was hard to take the more expanded stories [and develop additional activities.]” I acknowledged that this required more work for the teacher, to which she responded:

Yeah, but this is something that, I mean, in my eyes, this isn't for you, the teacher. It's for you, but the kids are benefitting from it. Teachers rephrase books all the time so kids can read them. It's not that big of a deal. I just didn't do it, that's all! (Meeting, April 27, 2010)

Erin’s difficulties involved both the choice of book and the issue of time, and greatly interfered with the implementation of the intervention.

For the other teachers in my study, the biggest obstacle to explicit instruction with supplemental literacy activities was time. Rachel had difficulty finding a place in her schedule for consistent dialogic story signings. She commented about how she wanted to set aside two or three times per week, with extended time the last day for the literacy activities. However, she did not make this happen during the course of the study and said it was a “missed opportunity” that she did not offer the students literacy activities along with the story signings she conducted (Meeting, April 28, 2010). Rachel also remarked that making it a regular part of the schedule at the beginning of the year—“keeping it consistent”—and in particular determining when to do additional literacy activities, could make it a more regular part of her practice (Meeting, April 28, 2010).

Arielle and Meg were both concerned with the amount of time it took to make the explicit connections between signs and print, especially with the signing of English phrases. For example, during a reading lesson Arielle’s students signed the English phrase *just in time* as RECENTLY INSIDE TIME and ONLY INSIDE TIME, which were not accurate and did not reflect the meaning of the text. Arielle was dismayed by the amount of time necessary to explain the correct sign and meaning, and said she did not have time in the schedule to engage in such detailed instruction regularly (Training, C, January 28, 2010).

Meg initially had also been reluctant to engage in this kind of explicit instruction because of the amount of time. She even felt these explanations interfered during story signings, explaining of one recent story: “But it said something about, they were talking about cat litter, and then they were picking up litter, like trash. You know? . . . And it



took so much explaining for it to make sense, so by then they were exhausted” (Meeting, January 7, 2010). My concern was that students did not understand the text—which is the whole goal of reading—and that explicit instruction was necessary for their comprehension of the story. Otherwise, students were merely identifying words, which Arielle and Meg had both stated was a problem, especially with their students who used Signed Exact English for communication. As described in the section about Meg in the previous chapter (see pages 86-87 and 90-93), she recognized this logic and began using explicit instruction regularly in her teaching, saying she noticed the students being more cognizant of their mistakes and questioning the meaning of the signs they used, which greatly assisted their comprehension.

### **Supporting the Bilingual Learning of DHH Students: Summary**

For this study, I believed the explicit instruction to connect the signs of ASL with the English print would be critical. Deaf and hard of hearing students have limited experience with print materials and difficulty or an inability to rely on audition for phonology. Because of this, I felt the explicit teaching would be an invaluable aspect of teaching and learning in these classrooms. However, the issue of time—in terms of scheduling and preparing materials—prevented three of these teachers from taking on these additional literacy activities. Meg was the only teacher who changed her practice to incorporate this explicit instruction around books and engage students in active discussion concerning the differences and similarities with the two languages.

### **Additional Teacher Responsibilities: A Matter of Time**

Issues with time have been introduced within other sections of this chapter and within the previous chapter on individual teachers. However, the issue was significant enough to warrant further explication as its own topic. Throughout my study, I realized that bringing dialogic reading to the elementary level with deaf and hard of hearing students required additional time before, during, and after the reading. Erin stated: “everything seems to take a little bit longer with our students” (Training B, February 18, 2010). This was to be expected because the students already exhibited language and conceptual knowledge delays and were working between two languages, American Sign Language and English. In fact, they were relying on their limited and delayed skills in ASL as a foundation for English literacy.

### **Before Reading: Preparation**

Time for preparation before a story signing included choosing an appropriate book, reading the book beforehand, and creating additional literacy activities for students. Books can and should be chosen for specific topics and linguistic and conceptual features. Additional time was necessary to provide background knowledge to students that they would normally access through incidental hearing and through communication with families.

Teachers must also read and know the book before the story signing so as not to lose the visual attention of students. It was incredibly difficult for the participating teachers to read an unknown text with their DHH students, while trying to maintain a visual connection with them. When the visual connection was lost, the students were not engaged, and the focus shifted from language and literacy to attention and management

issues. Rachel commented about how pre-reading the book before a story signing had made the activity easier for her than when she had merely skimmed the book before sharing it with students.

Because the books for story signings had language at a level above the reading capabilities of students, teachers needed to create additional materials at appropriate literacy levels for their students. Arielle asked, “. . . do we really have that much time to prep for telling and reading and all that?” (Meeting, May 11, 2010). The issue of time for preparation and reading instruction interfered with the implementation of dialogic reading for these four teachers.

### **During Reading: Dialogic Reading Practices**

In addition to introducing specific dialogic reading practices during the reading to engage students in conversation, teachers also needed to introduce and explain new concepts and manage the visual attention of students—to themselves and the reading, and to comments and questions by classmates. The students often exhibited knowledge gaps that were subsequent to their language delays, which required teachers to explain additional concepts. Sometimes these explanations took away from the flow of the story; recall that this occurred several times throughout one story signing with Arielle (see pages 73-74 and Appendix G). These explanations could also occur prior to the story signing to avoid that disruption, but requires that teachers know the areas students are lacking. Teachers were also responsible to engage the students visually while they signed the story, as well as direct student attention to comments and questions of other students. This resulted in several repetitions of information, either by the teacher or students, throughout the story signing. Because of these additional responsibilities, I found the teachers in my study needed on average 20 to 25 minutes for story signings; the recommendation in the original research was 10 to 15 minutes for dialogic reading (Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999, p. 317).

### **After Reading: Explicit Instruction**

Because the students were working between American Sign Language and English, explicit instruction was necessary to draw comparisons. As discussed in the previous section on bilingual explicit instruction, Meg stated her concerns that time for explicit instruction, while beneficial, would outweigh other subjects and even the time for reading instruction with the curriculum stories. In my modeling of explicit instruction following a story signing with Meg’s class, one sentence took the students and me eight minutes to discuss and understand (see pages 89-90 and Appendix H). We translated between the exact English words, their multiple means, and their comparable signs; this required time and effort but was necessary for student comprehension. Erin had conducted such a lesson on various meanings and conceptual signs for the word *run* (see pages 56-57). In fact, hearing students learn 213 English words in the Dolch pre-primer to third grade lists, whereas, because of multiple meanings of these words and differences in signs to represent these meanings, DHH students must learn 510 signs for those same words (Fairview Learning Corporation, 2002). It is illogical to expect DHH students to learn these 510 signs in the same amount of time that hearing children learn less than half that number of words. The grammar of the two languages is also different, and students must be taught how to translate between them for literacy activities. For example, in the

reading lesson I taught to Meg's class, we read a sentence together, "Frannie's dog jumped into the doll carriage." In ASL, this would be signed: DOLL-CARRIAGE, FRANNIE HER DOG JUMP-INTO. Explicit instruction requires additional time for teachers to be creative in conceptualizing and making materials at an appropriate reading level for students, and then time executing them in practice.

### **A Matter of Time: Summary**

The issue of time was a persistent problem with all four of the participating teachers. This was not atypical, as many teachers claim time keeps them from integrating particular practices and the issue of time with small groups was identified as an initial impediment (Lonigan & Whitehurst, 1998; Whitehurst, Arnold et al., 1994). However, using dialogic reading to address the language and literacy needs of DHH students requires additional time before, during, and after the story signing. As students are constantly working between two languages and experience language and knowledge delays, this additional time is to be expected. Unfortunately, it has not adequately been addressed, as all four teachers commented on their competing responsibilities to the curriculum, which limited and interfered with their abilities to integrate dialogic reading practices.

### **Summary of Findings Across Cases**

The authors of the previous studies identified three impediments to sustainability, which were teacher time for small groups, a difference in philosophy, and the effort required by the teacher (Lonigan & Whitehurst, 1998; Whitehurst, Arnold et al., 1994). I felt that in applying this intervention to deaf education, the first two impediments would not be an issue. Unfortunately, all three were also problematic for the teachers in my study. The analysis of the study data was based on three elements: the previously identified impediments to sustainability, the recommended critical features of dialogic reading (the choice of book for the reading, the use of small groups, the teacher's role in facilitating dialogue with students, and active student participation) and necessary adaptations with students who are deaf and hard of hearing. This chapter examined how these issues manifested across the different developmental and curricular levels within the participating classrooms.

For teachers—of typical or special needs students—certain elements are necessary for the success of dialogic reading. The use of small groups is important in order for each student to be actively engaged in the conversation around the book. These small groups depend on capable staff and clear communication between teachers and teacher aides. There is also a sophisticated level of organization required for grouping students and planning and coordinating simultaneous lessons.

Another hindrance to the implementation of dialogic reading was the issue of philosophy. For the participating teachers, this surfaced in what they identified as competing issues of facilitating language development and conducting academic literacy instruction. While the teachers acknowledged that their students had language delays, they also admitted they did not know how to address these delays within the classroom. In a misguided attempt to address both linguistic and curricular issues simultaneously, the teachers chose books to read *to* students that could also be used for reading instruction and independent reading. Unfortunately, this resulted in either the use of very simplistic

books for the story signings, which did not lend themselves to the conversational goal of dialogic reading, or the use of text that was not at an accessible reading level for the students, for either instructional or independent reading.

The third previous impediment to sustainability in classrooms was the amount of effort required by the teacher during dialogic reading sessions. Teachers were responsible to engage each student and facilitate their participation in dialogue through the use of prompts and feedback, while maintaining appropriate behavior in the group. Because the students involved with this study were language delayed, teachers' attempts with conversation were further complicated. In addition, the teachers needed to provide background knowledge and serve as a linguistic model during this activity. Despite the obstacles with implementing dialogic reading, the participating teachers did make attempts to change their practice and exhibited positive changes during the course of the study.

In implementing dialogic reading practices with deaf and hard of hearing students, there were additional teacher responsibilities, which included maintaining students' visual attention, explicit bilingual instruction, and the issue of time before, during, and after the reading. The visual attention of DHH students placed a physical demand on them to attend, and a physical demand on their teachers to support and maintain that attention. This was an additional aspect of the teacher effort required during story signing. Pre-reading the book was another necessary adaptation, so that teachers could reference text without significant breaks to eye contact with the students. After the story signing, instruction was necessary to connect the signs of the story to the print of the text. In addition to the explicit teaching of features of both languages, this required that teachers adapt materials to the appropriate literacy level of students. Time for preparing materials, executing dialogic reading, and conducting bilingual instruction was an enormous hindrance to the implementation of dialogic reading with these four teachers.

This chapter explained impediments to the practice of dialogic reading as experienced by the four participating teachers and how those impediments manifested across the different developmental and curricular levels within the participating classrooms. The analysis highlighted the complexities that would be experienced by any teacher attempting to implement dialogic reading practices, and the further responsibilities and adaptations necessary by teachers of DHH students.

## CHAPTER 6: DISCUSSION AND IMPLICATIONS

I undertook this study because I was impressed by the benefits of dialogic reading for disadvantaged, hearing preschool students, and I believed this intervention could address the unique language and literacy needs of deaf and hard of hearing (DHH) students. Dialogic reading aims to make the students more active participants in the reading process by having adult readers engage students in discussion and retellings of the stories (Lonigan & Whitehurst, 1998; Whitehurst, et al., 1988; Whitehurst et al., 1999). Because dialogic reading was typically used for preschool aged children, I realized that some adaptations would be necessary in bringing dialogic reading to the elementary aged DHH population. I wanted to conduct a study to identify those adaptations. In addition, because there had been issues with sustainability in previous research, I aimed to identify the obstacles that teachers experienced in sustaining the program for the long term. With teachers' input and effort, I also aimed to make adjustments during the study to alleviate such problems as they arose in the implementation process. Previous researchers had identified the following three obstacles to implementation: teacher time for small groups, the issue of philosophy for learning, and teacher effort. I hypothesized that only one of these, teacher effort, would be an issue for the teacher participants in my study. However, as the findings from the study demonstrated, all three posed problems for them. Their ability to implement dialogic reading practices was also hindered by the additional adaptations that were necessary for DHH students. Because of these difficulties, none of the four participating teachers integrated dialogic reading into their practices with the fidelity that I had hoped for and expected. Although I had conducted student assessments for the purposes of pre- and post-testing to have a measure of teachers' efforts with dialogic reading on student performance, it was not appropriate to use the student data in this way. My study then focused much more on the difficulties experienced by teachers during the implementation process. The research questions guiding this work were:

1. What specific knowledge and skills do teachers need to implement dialogic reading practices in order to address the language and literacy needs of deaf and hard of hearing students?
2. What are the obstacles/challenges to implementing dialogic reading? What aspects impede implementation, fidelity, and sustainability? What factors are consistent with sustained practice?
3. How does dialogic reading need to be adapted to meet the particular needs of deaf and hard of hearing students?
  - c. In what ways do these adaptations surface across grades, settings, levels of hearing loss, and communication needs?
  - d. What are critical features of supplemental direct instruction connecting ASL signs to English print?

The research questions concerning teacher implementation (#2) and adaptations for DHH students (#3) were discussed in the preceding two chapters, through in-depth examination of individual teachers in chapter four and in terms of how the issues presented across all the participants in chapter five. These questions are very much

related to and dependent upon teacher knowledge, which is the subject of the first research question. In essence, the question of knowledge for teaching has been dealt with indirectly within discussion of these other research questions. However, I reserved the first research question for direct examination in the current chapter primarily because the issue of teacher knowledge is a natural bridge to the conclusions and implications that characterize this chapter. In addition, the other research questions will be summarized and discussed here within the context of teacher knowledge. In particular, I intend to make direct links to implications for practice, with pedagogy both for young children in the classroom as well as for teacher education and professional learning and development. Findings will likewise be reviewed and further explored in the context of implications for theory, policy, and further research. Limitations of the study and directions for future research will also be considered.

### **Teacher Knowledge and Skill**

In considering the research question about the specific knowledge and skills for teachers of DHH students, three issues proved problematic for implementing the intervention. These were the following: teachers were not regularly engaged in the recommended best practice of reading to students, teachers did not know how to address language delays in the classroom, and the adaptations necessary for their students presented additional difficulties for teachers. Teacher knowledge will first be discussed as a stand-alone issue at the beginning of this section, and then will be discussed within the context of the research questions on implementation and adaptations for DHH students.

### **Knowledge of Best Practices**

Reading to students is considered best practices (Ezell & Justice, 2005; Fountas & Pinnell, 1996; National Academy of Education, 1985) as it provides a sophisticated model of language, instills motivation that promotes further reading, and fosters cognitive, linguistic, and vocabulary development (Cunningham & Stanovich, 2001; Dickinson, McCabe, Anastasopoulos, Pesiner-Feinberg, & Poe, 2003; Schleper, 1996; Whitehurst, Arnold, et al., 1994, Whitehurst, et al., 1999). However, the teachers in this study did not have regularly scheduled story signings as a part of their classroom practice. Erin, who taught first grade at a school for DHH students, had only one time per week scheduled where she or a team member conducted story signings with students, although she said it did occur in other lessons. Rachel, who taught second grade at the same school, also said she used the activity only as a supplement to other subjects. The two participating teachers of special day classes for DHH students also did not make reading to their students a priority. Arielle and Meg, who taught grades 2-3 and 4-5 respectively, both had story signings on their schedule, but commented they were often not able to make it happen because other activities ran over or they needed the time to complete other lessons.

The lack of emphasis on story signings was concerning for two reasons. First, it is considered best practice and “the single most important activity for eventual success in reading” (National Academy of Education, 1985, p. 33). Second, because of the linguistic mismatch between DHH students and their hearing parents, they lacked a common language with which to experience books. In this situation, teachers should especially be mindful of the need to read books to students who have had limited experiences with

shared reading at home. Specifically, I was concerned that the academic focus on the *skill* of reading would overshadow the *enjoyment* of reading; I feared this unequal focus would interfere with students' motivation to pursue reading despite its challenges.

Story signing was not given a priority in the classrooms in this study and all signs in the data point to a lack of knowledge around several topics: best practices for reading, the benefits of reading to students, and the importance of language for literacy development. Kennedy describes five reasons reform efforts are not effective in schools. The first of which is: "Teachers need more knowledge or guidance in order to alter their practices" (2005, p. 12). It is the professional responsibility of classroom teachers to address the specific needs of their students. Likewise, it is the responsibility of teacher education, whether pre-service teacher education programs or in-service professional development, to offer appropriate knowledge and pedagogy. Studying the research and theory supporting certain pedagogical practices with students, to address their needs, is much, much different from actually implementing those practices with a group of students: studying why and how to read to children is much different than having expectant students sitting in front of you. Theory and research "go out the window" when practical issues, such as classroom management, take priority. Arielle described the difficulty in connecting what she was learning in her college courses to what was happening in her classroom: "... the theory is nice and peachy and everything, but then how do I implement it in [the many parts] that I have to ... ?" (Interview A, December 14, 2009).

Teachers might benefit from a more integrated learning experience combining knowledge underlying pedagogical practices and decisions with practical application of research-based pedagogy in classroom internships. Erin, the only teacher in my study with bachelor's and master's degrees in Deaf Studies and Deaf Education, respectively, reported teaching her first reading lesson as a *hired teacher*, not during her student teaching or practicum placements within either of those programs. Erin commented about needing:

more research-based approaches to working with deaf students ... I also think that teacher training programs need more careful placement for internships and student teaching experiences to ensure that future teachers get adequate exposure to model teachers and to hands-on practice with literacy. (Teacher Questionnaire, #30)

The implications for teacher learning are clear from this comment: teacher education and ongoing professional development need to explore means to help integrate knowledge into practice, with coaches or mentors to provide guidance and critical feedback. Also implicated in Erin's comment is the lack of a clear path of transition from student (in a university setting) to teacher (in your own classroom). Our protestations as a profession about the "induction" and transition process notwithstanding, we still lack good models for accomplishing this difficult feat.

Meg was also frustrated from the lack of pedagogical knowledge she acquired during her teacher education program<sup>28</sup>, which left her "doing trial and error on the kids."

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<sup>28</sup> This lack of knowledge may also be due to the fact that she had not yet completed her teacher training.

She commented further, saying, “[avoiding] any wasted day trying to figure out how they learn, when you could be taught different strategies *before* going in would be helpful!” (Training B, January 13, 2010).

Because story signings were not a regular practice in the participating classrooms, additional problems arose during the implementation of the study. I had expected that my intervention would occur during scheduled times for reading aloud/story signings with students. I also anticipated that the additional literacy activities, making explicit connections between the signs of the story and the English print of text, could occur during one of these times per week or as an additional literacy lesson. I had hoped and expected that the dialogic reading intervention would be integrated into already established classroom practices. Thus, I was surprised and disappointed when I learned that this kind of reading to students was not a regular activity in these classrooms. As a consequence, dialogic reading became a scheduling issue—instead of an instructional one—that placed an additional burden on the teachers.

My research also began in the middle of the school year; perhaps story signing would be easier for teachers to integrate if it was part of the schedule from the start of the school year. Rachel, who struggled with scheduling issues, commented that making it a regular part of the schedule at the beginning of the year—“keeping it consistent”—and in particular determining when to do additional literacy activities, could make it a more regular part of her practice (Meeting, April 28, 2010). Future research should consider integrating interventions of this sort into the curriculum at the beginning of the school year in order to ensure regular times for the activity several times weekly.

### **Addressing Language Delays**

All four teachers in this study commented on the negative repercussions of their students’ language delays to linguistic, conceptual, and academic learning and development, yet stated they did not know how to address these delays within the confines of the curriculum. While there was a surface understanding that these delays were an enormous detriment, there were also competing responsibilities (to the curriculum and testing, for example) that interfered with the teachers’ opportunities to think critically about these delays and implications for student development and learning. When I offered the dialogic reading intervention, all the teachers were verbally supportive of using it, but eventually they discovered that many obstacles would interfere with its implementation and sustainability.

**Curricular constraints.** The teachers in this study stated they wanted to address the linguistic and academic needs of students, but did not know how to do so within the confines of curricular demands. Because they did not know how to address students’ linguistic needs, they instead deferred to the basal curriculum, which did offer guidance. However, the basal curriculum was at a level far above the students’ current linguistic or reading abilities, and their reliance on it led to further frustrations for teachers and students. When teachers’ goals for their students clashed with the practices in the basal curriculum, the curriculum prevailed.

Unfortunately, current policy demands pressure teachers to have students “perform;” this limits teachers’ professional abilities to tailor teaching and differentiate instruction to the specific needs of their students. Arielle expressed frustration with this pressure to follow the pacing guides, saying: “Who are they to tell you [what you should



be teaching]? Why are we in a self-contained class? What does differentiated instruction mean?” (Meeting, January 27, 2010).

In particular with students who are enrolled in Deaf Education programs, pacing guides and curriculum guidelines lead to activities that are often well above the linguistic abilities of students. If teachers follow these guides, students will end up working at a frustration level, with inaccessible content and language, but it may be politically risky for teachers to do otherwise. Deaf and hard of hearing students are capable of learning and there should be high expectations for them academically; however, their language delays and subsequent influence on literacy learning needs to be addressed educationally. The policy implications are that we need to provide a differentiated educational experience for DHH students. Likewise, there are implications for teacher education, as stated previously. Teachers must be provided better educational experiences themselves in order to have the knowledge to make appropriate pedagogical decisions regarding the needs of their students.

**Facilitating language development.** Teachers felt that they needed to know more about how to further language development through their pedagogy. Arielle added that she tried to “simplify” her language for her students (Meeting, January 27, 2010), and did not realize until later in the school year that she instead should have been providing complex—but well-elaborated—examples of language to further their development. Teacher knowledge of the development of language is especially important when students lack linguistic models in their homes. Unfortunately, there is little guidance available for teachers, because the natural assumption is that students arrive to school with at least an intact first language. It appeared these teachers also lacked knowledge of the vital importance of a language foundation for literacy learning. It was not until the end of the study that Erin acknowledged that if her students were not able to engage in signed conversations about stories, then she could not expect them to read the text in their second language (Meeting A, April 27, 2010). She then stated she should focus more on developing their expressive and receptive language skills in ASL before expecting independent reading.

The field of Deaf Education is responsible to acknowledge and address that students need a strong first language foundation before literacy instruction should begin; there is currently a dearth of research on how to address this issue within the classroom. The dysfunction in families is often referred to as the elephant in the living room. The language delay of DHH students is the elephant in the living room of Deaf Education: we acknowledge the language delays of students but do not provide our teachers resources to intervene in order to facilitate language development. At the participating school for DHH students, supports were in place during the preschool years to further the children’s language development, through The Shared Reading Project and Deaf Mentoring Program (see page 36). However, these supports ended at the elementary level. Although language delays and further complexities are acknowledged within the field, the additional time for learning and instruction has not adequately been addressed.

In addition to addressing the language delays of DHH students educationally, we also need to examine this issue through social and political lenses. Socially, many families have limited resources or are unaware of resources available to assist them in learning American Sign Language. Running a household, raising children, and earning a living often take priority over learning ASL. In addition, families may be socially

constrained due to economic, minority, or immigrant status. We need to further examine how to help families learn to communicate with their children despite these societal limitations, while simultaneously working to alleviate them.

Unfortunately, DHH children are often left to figure out how to communicate with their family members, with the success or failure of that communication their responsibility. Meg described one parent's comment after observing class: "I didn't know that Aaron even knew that sign language!" (Personal Communication, January 6, 2011). Aaron was not able to use speech as an effective means of communication, and his family did not know sign language; it is unclear how they communicated.

Deaf and hard of hearing children who experience language delays do so not because of some inherent factors or internal processing problems. They have language delays because language is *withheld* from them. Language is withheld not from cruel intentions, but because hearing parents must learn a new language to communicate with their children. However, the children's inability to access language has very detrimental effects on their language, literacy, academic, and social lives and negatively impacts their own potential. We need to protect and defend the right of DHH children to access and use language that is appropriate for their communicative needs.

Likewise, we need teachers who are competent users and models of American Sign Language. One of the teachers in this study, Rachel, had no sign language skills when she was first hired, while Arielle was at a very beginning level. Students with language delays require sophisticated models of language, not a teacher with perhaps less skill than they have. Teacher preparation programs should require a level of sophistication with ASL to begin the program, and a much higher level upon graduation.

### **Summary: Teacher Knowledge and Skill**

The first research question of this study concerned the knowledge and skills necessary for teachers to implement dialogic reading practices. Although there is a significant amount of research on the benefits of reading to children, it appeared the teachers in this study lacked that knowledge, as revealed by their reluctance to schedule regular story signings as a part of their classroom practice. As these DHH students did not often experience shared reading with their hearing parents because of the language mismatch, the fact that teachers were not regularly engaged in this practice was especially concerning. This finding indicates that teacher preparation programs should focus on combining the knowledge underlying pedagogical practices and decisions with practical application of research-based pedagogy in classroom internships.

All four teachers also commented on the negative repercussions of their students' language delays to linguistic, conceptual, and academic learning and development, yet stated they did not know how to address these delays. Teachers expressed frustration in teaching from curricula that were at a higher level than the students' current linguistic or academic capabilities. While this study was an attempt to address the linguistic development of students educationally, social and political avenues also need to be pursued to support and facilitate the learning of ASL by families and the right of DHH children to have access to language.

### **Teacher Knowledge and Skill for Implementation**

The second research question investigated the obstacles to the implementation of dialogic reading. This section will review the findings on impediments to implementation, and will then relate this question to that of teacher knowledge.

#### **Impediments to Implementation**

Previous research with dialogic reading, which was conducted in hearing preschools with students of low socioeconomic status, identified three impediments to long-term sustainability by teachers. These included teacher time for small groups, a difference in philosophy, and teacher effort. I had anticipated that the first two would not be issues within DHH classes, but was unfortunately mistaken; all three were also problematic for the teachers in this study.

In prior research, teacher time for small groups had surfaced as an impediment because of the large class size of hearing preschools. Teachers found it difficult to coordinate with team members to engage in small group activities. As DHH classrooms are typically small (class sizes in this study ranged from five to nine students) and classrooms have teachers and teacher aides, I did not anticipate that the use of small groups would be an issue. However, findings indicate that a great deal of organization and effort is necessary in order to group students appropriately, communicate with staff, and coordinate simultaneous activities.

Small groups were recommended in previous research with dialogic reading to allow each child to participate in the discussion (Lonigan & Whitehurst, 1998). Erin, the one teacher in this study who used small groups for dialogic reading, placed students heterogeneously in small groups, in order for students with more advanced skills in ASL to serve as language models in their respective groups. As Erin and her classroom aide led groups simultaneously, this required communication about lesson goals and plans prior to the activity. In addition, Erin and her aide were not able to share feedback on each other's practices. Findings also indicate that the use of small group lessons requires a great deal of forethought to plan which activities need to occur prior to the small groups and to organize the progression of activities so information is building on previous lessons.

Teachers' philosophy of development and learning had been the second impediment identified in prior research with dialogic reading (Lonigan & Whitehurst, 1998). Preschool teachers in that study were reluctant to engage in activities to build specific skills and felt their role was to facilitate developmental learning. Because I was bringing this intervention to the elementary level, I did not feel this issue would be problematic. However, the teachers in my study felt the language learning of their students should have already occurred and that their role was to focus on academics.

As discussed in the prior section, although all four teachers were concerned about the language delays of their students, they did not have support or guidance on how to address this within their classrooms. In particular, the issue of philosophy of learning surfaced around choosing books: teachers wanted to read a story to their students, but they wanted a story the students would then be able to read independently, at least after a story signing on their part. This was problematic because the language that students could access independently for reading was very limited, and it did not afford the opportunity for detailed discussion, which is the goal of dialogic reading. Teachers also felt

constrained by their responsibilities to teach to the curriculum, which was above the linguistic and academic levels of the students.

The third impediment identified in earlier research was the amount of teacher effort in conducting dialogic reading. Teachers were responsible to “. . . carefully attend to individual children, provide instructive feedback, and manage the group dynamics” (Lonigan & Whitehurst, 1998, p. 265). I anticipated that this would also be an issue with the participants in my study. In particular, I predicted that the language delays of the students would require additional effort for teachers to model language and provide necessary background information. The findings show that this was indeed the case, as teachers modeled and facilitated conversational and turn-taking skills, explained new vocabulary, and described new concepts. Students’ inexperience and difficulty with questions was evident throughout all the classes in this study, but it was most obvious with the youngest students, where dialogue was awkward and required even more effort by the teacher. In addition, the visual communication needs of students required teachers to assume an active and physical role in assisting and managing student attention during story signings. Other adaptations specific to DHH students also hindered implementation, and will be further explicated within the section addressing teacher knowledge for adaptations.

### **Knowledge for Implementation**

During the course of the study, it became clear that the teachers did not know *how* to teach what they felt they *should* teach. Arielle commented, “. . . you shy away from doing things because you don’t know how to do it” (Meeting, February 11, 2010). Meg made a similar comment when we were discussing explicit bilingual instruction with ASL and English, admitting that before the study she had been “scared” to teach in that manner because she did not know how to do so (Meeting A, May 4, 2010). This has serious implications for teacher education. Again, responses such as these emphasize the need for practical, pre-service experience in planning and implementing multifaceted aspects of lessons within the complexities of the classroom. However, both Arielle and Meg were working towards their teaching credential while they were teaching; surprisingly, their teacher education program encouraged them to find teaching positions while they were still in the program. This is counterintuitive because they had limited knowledge and pedagogical experiences, which was a disservice to them, but more important to the students they were educating. Their first year teaching served as their student teaching, but without an experienced teacher serving as mentor, modeling lessons, and providing ongoing feedback. We are devaluing our own profession by suggesting and supporting students in teacher education programs to begin teaching while they are still going through the program; it seems to indicate that anyone with a little knowledge can be an effective teacher.

Even when teachers were presented with a scientifically based intervention to address the linguistic issues they were concerned about, implementing dialogic reading was very problematic. In addition to the issues related to this specific intervention, there were also issues related to teachers’ learning new knowledge and integrating that knowledge into their practice. For example, Erin was hesitant at first to follow my suggestion to use more narrative stories as opposed to repetitive, simplistic text, but did respond to and incorporate this suggestion by the middle of the study. This difficulty

illustrates just how hard it is to change one's practice. It also reveals the steep learning curve for teachers, as implementing and integrating new practices involve leaving a comfort zone with pedagogy. Further research needs to investigate how to support teachers, both novices and experienced teachers, in implementing new practices for sustainability.

Also, the cognitive effort that is required to engage in new practices may result in some temporary setbacks. At one point in the study, I had been concerned that Meg had reverted back to her original practices, but she resumed implementing dialogic reading after professional and personal stressors had passed (see page 92). This example emphasizes the need to recognize the effort required in implementing new practices, and highlights that setbacks do not mean the practice has been discarded. Indeed, Arielle commented of her attempts with dialogic reading: "... this is a work in progress. Nobody overnight just reads [in a dialogic reading manner] and becomes good at it" (Meeting, May 11, 2010).

Two teachers in the study had previous professional development that may have affected their work with this implementation. Erin had participated in a two year ASL/English bilingual professional development focused on explicit instruction in the two languages. In contrast, Meg had received training on reading books to students and engaging them in conversation to further their expressive language development in ASL. It appears that the teachers took this training to heart and made it part of their teaching pedagogy. However, it also appears that this training disposed each of them to emphasize those topics, to the exclusion of others. For example, Erin appeared to put so much emphasis on teaching her students reading processes that it interfered with her book choice and her own stated goal of enhancing their expressive/receptive language abilities. Meg, on the other hand, was already incorporating the dialogue and discussion from her professional development into her reading lessons and story signings, but she admitted she was "afraid" and "didn't know" how to make connections between ASL and English text (Meeting A, May 4, 2010). After many discussions on that topic and my modeling of a lesson, this is where Meg showed the most change in pedagogy during the course of the study.

These examples demonstrate the teachers' willingness to implement new practices based on professional development experiences. Each professional development experience had a very important focus, each of which was taken up seriously by Erin or Meg. However, they also highlight the potential narrowing effect professional development can exert when it does not cover all important aspects of a curriculum. Neither Erin nor Meg seemed to have a holistic understanding of the developmental framework for when and how to introduce these specific lessons. Perhaps professional development should help teachers reflect on their practice in terms of what they should be doing to address students' needs and what they are actually implementing in the classroom. In particular, professional development has a responsibility to draw "attention to the use of new knowledge that is relevant to student learning" (Hawley & Valli, 1999, p. 136).

### **Summary: Teacher Knowledge and Skill for Implementation**

In prior research on dialogic reading, three impediments to implementation were identified; findings from this study demonstrated that all three surfaced as obstacles for

implementation. The first of these impediments was the use of small groups, which required a great deal of organization and effort in order to group students appropriately by linguistic needs, communicate with staff, and coordinate simultaneous activities. The second impediment was the issue of philosophy of learning and development. The teachers in this study felt their responsibility was in teaching the curriculum, not in addressing the language delays of their students, despite their stated concerns for these delays. The issue of philosophy of learning surfaced specifically around the choice of books and the use of the curriculum. The third impediment was the amount of teacher effort necessary to engage students in the dialogic reading activity while offering appropriate feedback and managing behavior. The teachers in this study also needed to model and facilitate conversational and turn-taking skills, manage the visual attention of students, and present background knowledge.

Teacher knowledge was examined through the implementation process. Teachers admitted that they did not know how to address the specific issues of their students. Their attempts to implement dialogic reading displayed their learning curve as they left a comfort zone with pedagogy. Findings from this study indicate that teacher pre-service and professional development programs should help teachers be reflective of their practice in terms of what they should be doing to address students' needs. Also integral to these programs is the need for practical experiences in planning and implementing multifaceted aspects of lessons within the complexities of the classroom.

### **Teacher Knowledge and Skill for Adaptations with DHH Students**

Teachers—in this study and previous studies (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994)—had difficulties in implementing and sustaining dialogic reading practices. In addition to earlier identified difficulties, the teachers in this study also had to employ adaptations for their deaf and hard of hearing students, including adaptations for the visual communication and attention needs and bilingual learning issues of students. This put an additional burden on teachers, not only during the reading, but in preparation before and explicit instruction after the story signing, which required additional preparation and lesson time. These adaptations were necessary in order to address the unique linguistic and academic needs of DHH students, but teachers seemed ill prepared and ill informed about the *need* to engage in them and *how* to engage in them. This section will therefore first review the findings from the data on the additional adaptations and will then examine the issue of teacher knowledge for these adaptations.

### **Adaptations for DHH Students**

**Supporting visual attention issues.** One major adaptation was the necessity for teachers to support DHH students' visual communication and attention needs. Sign language requires eye contact to relay and receive information for conversation, language learning, and concept development. Visual attention places a physical demand on students. Teachers have an active and physical role in supporting that attention, which includes the following during story signings: managing student attention to the reader, directing turn-taking behaviors and attention to students who are asking questions or making comments, and repeating comments or questions of individual students to the entire group to ensure access.

With dialogic reading, the teachers and I identified specific adaptations with their students. The first of these was the seating arrangement. When students were seated at their desks during story signings, there was a physical distance between themselves and the teacher, which made regaining their attention using touch more difficult. Sitting on the floor or in close physical proximity made this physical redirection much easier for teachers. In addition, it allowed students to get their teacher's attention through touch to ask a question or make a comment.

The second adaptation with visual attention was the necessity for teachers to have pre-read the book before the story signing session. When teachers were unfamiliar with the book, they needed to read the text and therefore lost the visual attention of students. Regaining this attention, repeatedly, was difficult, and decreased interest for both students and the teacher.

A final adaptation was how teachers held the book. Teachers in typical elementary classrooms hold the book to display the text and illustrations while they read the page aloud. Because of the visual attention needs of DHH students, displaying the book during story signing meant the students' attention was split between the book and the signing of its content. This can be challenging, especially for younger students, but students can learn how to scan between the book and the signing. I recommended that another staff member or student hold the book while the teacher signed the story. The issue of holding the book was most problematic in Arielle's class, because she attempted to hold the book and sign simultaneously, which resulted in signed messages that were either inaccurate or unintelligible.

Three of the four participating teachers identified these attention issues as real challenges to their teaching. However, I was concerned when one of those teachers attributed the visual attention issues to something in the students' constitution (e.g., immaturity, Attention Deficit Disorder, or another disability) rather than to a cultural and communicative aspect of classroom practices. Such attributions can prevent teachers from focusing on key aspects of the learning environments in their classrooms.

**Supporting bilingual learning.** Along with the story signing aspect of this intervention, I also wanted teachers to engage in supplemental literacy activities around the book. Deaf and hard of hearing students often have limited experience with print materials and a difficulty or an inability to rely on sounds to access print. Therefore, I felt explicit instruction would be an invaluable aspect of teaching and learning in these classrooms. I encouraged teachers to make additional materials from the storybook for literacy learning. However, problems surfaced both with time for creating these materials as well as time for instruction.

Time was an issue with this intervention before, during, after story signing. Time was needed before the story signing to choose an appropriate book, pre-read the book, and prepare additional literacy activities for students. Because teachers felt they did not have the time to make supplemental activities, they chose books with text that they felt students could read. In actuality, these texts were still above the students' independent reading levels. Additional time was also necessary to present the background knowledge to students that they would normally access through incidental hearing and through communication with their families.

During reading, teachers were responsible for integrating specific dialogic reading practices, while engaging students in conversation, explaining new concepts, and

managing the visual attention of students. After reading, explicit instruction was necessary to draw comparisons between the ASL signs of the story and the English print of the text. Unfortunately, teachers were concerned about the time required for this instruction, and felt that it took time from other subjects as well as from reading instruction with the curriculum stories. For example, because of multiple meanings of words and different signs in ASL to represent those meanings conceptually, DHH students must learn numerous sign variations for one English word. In the Dolch pre-primer to third grade list, hearing students learn 213 English words while DHH students learn 510 signs for those same words (Fairview Learning Corporation, 2002). It defies what we know about students learning to expect DHH students to acquire these words and signs in the same amount of time that hearing children need to learn to read the words.

### **Knowledge for Adaptations**

Teachers lacked knowledge of how and why to make adaptations and appeared not to consider how learning and teaching needed to be different for their students. To adequately address the needs of students, additional time was necessary for teaching background knowledge, conceptual information, and new vocabulary as well as for bilingual instruction in ASL and English. These are not just additional factors; they compound the time necessary for effective teaching and successful learning.

Differentiated instruction and more time for DHH students does not mean lower expectations for them. They can achieve, we just need to give them more and better opportunities to do so in ways that are appropriate for their learning needs, visual/physical attention, and visual language. In particular, further research needs to examine best practices for language and literacy learning of DHH students, with an understanding that these will not be the same approaches for hearing students. Deaf and hard of hearing students who experience language and knowledge delays cannot possibly work through the curriculum at the same pace as their hearing peers. In addition, there are profound differences between the two groups of students in learning to read, because DHH students have difficulty with or an inability to access sounds for reading.

Research on the best practices for language and literacy learning of DHH students then needs to be the base for learning in teacher education programs. Erin commented of her teacher education program and Deaf Education in general: “I feel like there’s a ‘do your best’ attitude out there in training programs that pretty much gives us the same approaches that are used with hearing students” (Teacher Questionnaire). Meg shared similar thoughts. Her program offered only one class in teaching reading, and while she found the methods relevant for hearing students, she felt they mostly did not apply to teaching her DHH students. Specifically, teacher pre-service education needs to teach the importance of language development for literacy learning, and how reading to students through story signings can foster development in both areas. In addition, teacher education needs to prepare teachers for the visual and linguistic needs of DHH students, which are different than those of hearing students.

### **Summary: Teacher Knowledge and Skill for Adaptations with DHH Students**

The adaptations necessary for DHH students presented additional difficulties for teachers. Specifically the visual needs of students placed a physical demand on teachers,



and necessitated changes to their practice, in terms of seating arrangement, pre-reading the book, and holding of the book during the story signing. Time—before, during, and after the story signing—was one of the main obstacles to the implementation of dialogic reading and supplemental literacy activities.

Teachers also lacked knowledge of how and why to make adaptations for their DHH students. These findings are best understood within the context of implications for research and practice, with pedagogy both for young children in the classroom as well as for teacher education and professional learning and development. In particular, the different needs of students require a differentiated style of teaching, and this needs to be further explored in research and presented for teacher development, in both pre- and in-service learning programs.

### **Limitations of the Study**

Various limitations arose within this study. First, the absence of student achievement data: because of teacher difficulties with implementation, it made no sense to analyze student data to evaluate the impact of dialogic reading practices within DHH classrooms. In addition, I was the only researcher and there was a physical distance between the study sites. A common limitation cited with qualitative research is when findings are assumed to apply to any and all situations; however, generalizing the findings was not my intention for this study.

Future studies will need to investigate the potential for dialogic reading for DHH students if and when the intervention can be implemented in these specialized classroom settings. Ironically, even though we could not establish a *prima facie* intervention, the teacher participants were willing to be involved in the study, were surprisingly open in discussions about the problems and issues that arose for them, and solicited and were receptive to feedback. Eventually, we will have to consider how to encourage and support the use of dialogic reading with teachers who may be resistant or unwilling to engage in the practice.

Another limitation was that I was a single researcher dealing with a large amount of data, most of it related to analyzing an intervention that did not, for all the reasons advanced, get implemented. I had originally intended to view and code the teachers' videos for the kinds of questions types they were using while the study was ongoing, as "systematic monitoring and feedback . . . would generate higher and more consistent levels of teacher performance" (Whitehurst, Epstein, et al., 1994, p. 553-4). However, because of the amount of data collected per teacher and the amount of time in transcribing and subsequently coding the videos, I did not conduct any of these analyses. Had I been able to provide ongoing feedback to teachers, about the questions and specific dialogic reading practices they were and were not using, it may have impacted the quality of their implementation.

The physical distance from teachers, prompted by the need to obtain sites on both coasts, created logistical problems in providing readily available feedback and immediate response to teacher questions and concerns. I offered to be in contact through email, phone, and Skype to all the teachers while I away from their location. Two of the teachers contacted me through email for book recommendations and assistance with planning supplemental activities. Physical distance, combined with local staffing issues, also required me to create local adaptations in the training I provided. Two teacher aides were

not able to be part of the study, and the other two teacher aides had to be trained separately from the teachers. Their full participation in the training and implementation may have altered the success and implementation of dialogic reading.

I tried to create a common frame by using an informational video on dialogic reading called *Read Together, Talk Together*. The teachers all commented on the usefulness of the video, and described how they referred to their memory of the video in their attempts with implementation. They also commented on how seeing an example of dialogic reading with DHH students would benefit them enormously. I, therefore, volunteered to serve as such a model. I had taught for 12 years, but it had been five years since I was in the classroom. In addition, while I had attempted to elicit active participation and conversation around books with my students, it was not until I was a doctoral student that I studied the research on dialogic reading, so I was not entirely sure that my demonstration would be a model of this practice. Also, my experience provided me with a level of skill and comfort with ASL that was considerably higher than that of the participating teachers: I received national certification in interpreting and experienced an intensive week-long course on interpreting theatre. This involved analyzing scripts to determine appropriate interpretation in a way that I found enormously helpful for reading books to my students. However, I was only able to model story signings and lessons to Meg's class during the study, which seemed to be of benefit to her. With the other teachers, I provided the model at the end of the study. It became apparent to my participants and myself that a video of teachers of DHH students engaging in dialogic reading practices could be enormously helpful. This is the next level of research trajectory, to introduce critical features and discuss adaptations for use with this student population.

It was not my intent for this study to generalize the experiences of these teachers to all teachers of DHH students. A limitation of case study research is when the assumption arises that cases are meant for generalizability within a much larger population. Yin characterizes these limitations accurately: "case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (2003, p. 10).

### **Directions for Future Research**

The field of Deaf Education needs to acknowledge and address that students need a strong first language foundation before literacy instruction should begin; there is a dearth of research on how to address this issue within the classroom. This study was the first step of a multi-stage research trajectory to do just that. Future stages need to further investigate implementation by teachers to identify and alleviate obstacles and should incorporate the viewing videotapes of classroom practices for reflection and goal development (McConnell, et al., 2008; Rich & Hannafin, 2009). The development of a training video using examples from DHH classrooms would be beneficial for both research and professional development purposes. The final stage of the research should involve a control-intervention study, to determine if and how dialogic reading practices affect student language and literacy development.

Future stages need to further investigate the ability of teachers to implement dialogic reading (in classrooms with already scheduled times for story signings) now that some obstacles and adaptations are already known, while continuing to identify new

obstacles and ways to address them. Research also needs to consider how implementation will be different for new and experienced teachers. Researchers should work collaboratively with teachers throughout the implementation in order to discuss difficulties, develop adaptations, and provide feedback. Video analysis should be a strong component of this work. For example, teachers could review videotapes of their own story signings in order to reflect and learn from their work and determine goals for their teaching practices. Classroom teacher aides should be involved in the training and implementation work from the start to ensure more collaboration by classroom staff. Two or more videocameras should be utilized to capture the signed communications of teachers and students.

The teachers in this study made clear the need for more modeling in professional development training, whether with in-person or videotaped models. Specifically, the development of a training video with skilled teachers signing stories to DHH students would be an enormous benefit for the purposes of future research as well as professional development. In discussing such a video, the teachers in this study requested to see various teachers conducting the story signings. They also commented on the need to see an entire story signing, as well as retells of the story over multiple readings. The teachers felt a video of this kind would offer insights on the following: how to use conversation to achieve language benefits, how to be spontaneous with questions, how to encourage conversation and direct students back to the story signing when appropriate, and how to adapt the story signing in retells for increasing student participation.

A later phase of research should involve a control-intervention study, with the specific goal of determining the effects of dialogic reading practices on student language development. Formal and informal assessments should be used as supports for teacher practices. Finally, researchers need to investigate if story signings, as they are described here, can be sustained by teachers for the long term. Dialogic reading and other interventions that have demonstrated positive effects on language development should be further explored in order to decrease the academic achievement gap for DHH students—not only the gap that exists between themselves and their hearing peers, but between DHH students' current skills and their natural potential.

### **Conclusion**

I began this study because I felt strongly that dialogic reading was a way to address the delayed language of DHH students and their inexperience with books. I felt story signings could provide a motivating means to make important connections between ASL and English. I also thought if teachers knew more about dialogic reading they would happily integrate it into their practice. However, findings from this study indicate that the teachers were hindered first by a lack of knowledge and then subsequently by the difficulties of implementation, especially around adaptations with this population of students.

The lack of knowledge regarding best practices with reading, and reading with DHH students in particular, was a powerful impediment to implementing dialogic reading. Worth repeating is that teachers were not regularly engaged in the recommended best practice of reading to students; I was surprised by the absence of story signings and the little priority placed on it in the classroom. In addition, while the teachers acknowledged the language delays of their students, they admitted they did not know

how to address these delays within the classroom. In a misguided attempt to address both linguistic and curricular issues simultaneously, the teachers chose books to read *to* students that could also be used for reading instruction and independent reading. Unfortunately, this resulted in either the use of very simplistic books for the story signings, which did not lend themselves to the conversational goal of dialogic reading, or the use of text that was not at an accessible reading level for the students, for either instructional or independent reading.

Dialogic reading is itself more complex than it at first appears. In implementing dialogic reading practices with deaf and hard of hearing students, adaptations were necessary that placed additional responsibilities on teachers and required more effort from them. These adaptations included maintaining students' visual attention, explicit bilingual instruction, and the issue of time before, during, and after the reading. Time for preparing materials, executing dialogic reading, and conducting bilingual instruction was an enormous hindrance to the implementation of dialogic reading with the teachers in this study. The analysis of this study highlighted the complexities that could be experienced by any teacher attempting to implement dialogic reading practices, and the further responsibilities and adaptations necessary by teachers of DHH students. Future research needs to investigate implementation issues for the purposes of sustainability, and teacher education programs need to prepare teachers for the multifaceted nature and complexities of instruction.

Another elusive practice revealed in the current study is a continuous focus on individual differences. All of the teachers in this study accepted the premise that instruction should be reflective of and responsive to the needs of students. For DHH students who exhibit language delays, this means teachers need to focus on language development before explicit literacy instruction: a foundation of language is necessary for literacy learning, just as the foundation of a house is necessary for the building of multiple floors. Differentiated instruction for DHH students does not imply lower expectations. In fact, if teachers spend time developing student language, they will become more successful learners. But focusing on individual needs and pedagogical adaptations proved elusive in the current study. We need to provide students more and better opportunities to develop in ways that are appropriate for their learning needs, visual attention, and visual language.

I appreciated and was impressed by the willingness and vulnerability of the teachers in my study. They participated for the purpose of making their challenges transparent, in order to make the practice of dialogic reading more accessible and sustainable for other teachers and their students. Theirs is a physically, emotionally, and cognitively challenging job. We, in teacher education in general and Deaf Education in particular, need to refine and reshape our programs to allow teachers opportunities to acquire the knowledge and pedagogical skill necessary to provide students with the instruction that will allow them—both teachers and students—to be more successful in the classroom.

## References

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington DC: Author.
- Bailes, C. N. (2001). Integrative ASL-English language arts: Bridging paths to literacy. *Sign Language Studies*, 1(2), 147-174.
- Baker-Shenk, C. & Cokeley, D. (1980). *American Sign Language: A teacher's resource text on grammar and culture*. Washington, DC: Gallaudet University Press.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bates, E., Thal, D., & Janowsky, J. (1992). Early language development and its neural correlates. In I. Rapin & S. Segalowitz (Eds.), *Handbook of neuropsychology, Vol. 7: Child neuropsychology*. Amsterdam: Elsevier.
- Berliner, D. C. (1988). *The development of expertise in pedagogy*. New Orleans, LA: American Association of Colleges for Teacher Education.
- Block, C. C. (2003). *Literacy difficulties: Diagnosis and instruction for reading specialists and classroom teachers*. San Francisco: Allyn & Bacon.
- Bodgan, R. C. & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods*. San Francisco: Pearson.
- Brabham, E. G., & Lynch-Brown, C. (2002). Effects of teachers' reading-aloud styles on vocabulary acquisition and comprehension of students in the early elementary grades. *Journal of Educational Psychology*, 94(3), 465-473.
- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children*, 71(2), 195-207.
- Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *Journal of the Learning Sciences*, 2, 141-178.
- Brown, A. L., & Campione, J. C. (1992). Communities of learning and thinking, or a context by any other name. *Developmental Perspectives on Teaching and Learning Thinking Skills*, 21, 108-126.
- Brownell, M. T., Ross, D. D., Colon, E. P., & McCallum, C. L. (2005). Critical features of special education teacher preparation: A comparison with general teacher education. *The Journal of Special Education*, 38(4), 242-252.
- Brown, S. (1986). Etiological trends, characteristics, and distributions. In A. N. Schildroth and M. A. Karchmer (Eds.), *Deaf children in America* (pp. 35-54.) San Diego, CA: College Hill.
- Bus, A. G., van IJendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, 65(1), 1-21.
- Callahan, M., Griffo, V. B., & Pearson, P. D. (2009). Teacher knowledge and teaching reading. In F. Falk-Ross, S. Szabo, & M. B. Sampson, & M. M. Foote (Eds.), *Literacy issues during changing times: A call to action, 30<sup>th</sup> yearbook of the*

- College Reading Association* (pp. 37-62). Logan, UT: College Reading Association.
- Catts, H. W., Fey, M. E., Zhang, X., & Tomblin, B. (1999). Language basis of reading and reading disabilities: Evidence from a longitudinal investigation. *Scientific Studies of Reading* 3(4), 331-361.
- Catts, H. W. & Kamhi, A. G. (2005). Causes of reading disabilities. In H. W. Catts & A. G. Kamhi (Eds.). *Language and reading disabilities* (2<sup>nd</sup> ed.), pp. 94-126. Boston: Pearson.
- Chhabra, V. & McCardle, P. (2004). Contributions to evidence-based research. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research*, (pp. 3-12.) Baltimore: Paul Brookes Publishing Co.
- Clay, M. (1966). *Emergent reading behavior*. Unpublished doctoral dissertation, University of Auckland, New Zealand.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9-13.
- Cobb, P., Zhao, Q., & Dean, C. (2009). Conducting design experiment to support teachers' learning: A reflection from the field. *Journal of the Learning Sciences*, 18(2), 165-199.
- Collins, A. (1999). The changing infrastructure of education research. In E. Lagemann & L. Shulman (Eds.), *Issues in education research* (pp. 289-298). San Francisco: Jossey-Bass.
- Collins, A. Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *The Journal of the Learning Sciences*, 13(1), 15-42.
- Crain-Thoreson, C., & Dale, P. S. (1999). Enhancing linguistic performance: Parents and teachers as book reading partners for children with language delays. *Topics in Early Childhood Special Education*, 19(1), 28-39.
- Creswell, J.W. (2009). *Research design: Qualitative, quantitative and mixed methods approaches*, (3<sup>rd</sup> ed.). Los Angeles: Sage Publications.
- Creswell, J. W. & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In *Schooling and language minority students: A theoretical framework* (pp. 3-49). Los Angeles: California State University, National Evaluation, Dissemination, and Assessment Center.
- Cunningham, A. E., & Stanovich, K. E. (1991). Tracking the unique effects of print exposure in children: Associations with vocabulary, general knowledge, and spelling. *Journal of Educational Psychology*, 83, 264-274.
- Cunningham, A. E., & Stanovich, K. E. (2001). What reading does for the mind. *Journal of Direct Instruction*, 1(2), 137-149.
- Dale, P. S., Crain-Thoreson, C., Notari-Syverson, A., & Cole, K. (1996). Parent-child bookreading as an intervention for young children with language delays. *Topics in Early Childhood Special Education*, 16, 213-235.
- de Garcia, B.A.G. (1995). ESL Applications for Hispanic Deaf students. *The Bilingual Research Journal*, 19(3-4), 453-467.
- Delk, L., & Weidekamp, L. (2001). Shared reading project: Evaluating implementation

- processes and family outcomes. Retrieved July 22, 2008, from <http://clerccenter.gallaudet.edu/Products/sharingresults/sharedreadingproject/index.html>.
- Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5-8.
- Dickinson, D. K., McCabe, A., & Anastasopoulos, L. (2003). A framework for examining book reading in early childhood classrooms. In A. van Kleeck, E. B. Bauer, & S. Stahl (Eds.), *On reading books to children: Parents and teachers* (pp. 95–113). Hillsdale, NJ: Erlbaum.
- Dickinson, D.K., McCabe, A., Anastasopoulos, L., Peisner-Feinberg, E.S., & Poe, M.D. (2003). The comprehensive language approach to early literacy: The interrelationships among vocabulary, phonological sensitivity, and print knowledge among preschool-aged children. *Journal of Educational Psychology*, 95(3), 465-481.
- Dickinson, D. K., & Smith, M. W. (1994). Long-term effects of preschool teachers' book readings on low-income children's vocabulary and story comprehension. *Reading Research Quarterly*, 29, 104-122.
- Dixon, M.T. (2003). Teaching reading to those who think it's impossible to learn. *Momentum*, 34(4), 54-56.
- Dodd, E. & Scheetz, N. (2003). Preparing today's teachers of the deaf and hard of hearing to work with tomorrow's students: A statewide needs assessment. *American Annals of the Deaf*, 148, 25-30.
- Easterbrooks, S. R. (2008). Knowledge and skills for teachers of individuals who are deaf or hard of hearing: Initial set revalidation. *Communication Disorders Quarterly*, 30(1), 12-36.
- Easterbrooks, S. R. & Baker, S. (2002). *Language learning in children who are deaf and hard of hearing: Multiple pathways*. Boston: Allyn & Bacon.
- Erting, C. (2003). Language and literacy development in deaf children: Implications of a sociocultural perspective. In B. Bodner-Johnson & M. Sass-Lehrer (Eds.), *The young deaf or hard of hearing child: A family centered approach to early education* (pp. 373-398). Baltimore: Paul H. Brookes Publishing Co.
- Evans, C. (2004). Literacy development in Deaf students: Case studies in bilingual teaching and learning. *American Annals of the Deaf*, 149, 17-27.
- Ezell, H. K. & Justice, L. M. (2005). *Shared storybook reading*. Baltimore: Paul H. Brookes Publishing Co.
- Fairview Learning Corporation. (2002). *Fairview learning: Learning links to reading and language*. Author: Jackson, MS.
- Fountas, I. & Pinnell, G. (1996). *Guided reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.
- Freeman, D. (1968). *Corduroy*. New York: Viking Press.
- French, M. M. (1999). *Starting with assessment: A developmental approach to deaf children's literacy*. Washington, DC: Gallaudet University Pre-College National Mission Programs.
- Fung, P. C., Chow, B. W. Y., & McBride-Chang, C. (2005). The impact of a dialogic

- reading program on deaf and hard-of-hearing kindergarten and early primary school-aged students in Hong Kong. *Journal of Deaf Studies and Deaf Education*, 10(1), 82-95.
- Gallaudet Research Institute. (2005). *Regional and national summary report of data from the 2004-2005 annual survey of deaf and hard of hearing children and youth*. Washington, DC: Gallaudet University Press.
- Gersten, R., Baker, S. K., Haager, D. & Graves, A. W. (2005). Exploring the role of teacher quality in predicting reading outcomes for first-grade English learners. *Remedial and Special Education*, 26(4), 197-206.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Gillespie, C. W. & Twardosz, S. (1997). A group storybook-reading intervention with children at a residential school for the deaf. *American Annals of the Deaf*, 142(4), 320-332.
- Goldin-Meadow, S. & Mayberry, R. I. (2001). How do profoundly deaf children learn to read? *Learning Disabilities Research & Practice*, 16(4), 222-229.
- Gustason, G., Pfeitzing, D. & Zawolkow, E. (1992.) *Signing Exact English*. Los Angeles: Modern Signs Press.
- Hammerness, K., Darling-Hammond, L., & Bransford, J. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp.358-389). San Francisco: Jossey Bass.
- Hargrave, A. C., & Senechal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and dialogic reading. *Early Childhood Research Quarterly*, 15(1), 75-90.
- Hart, B., & Risley, T. R. (1992). American parenting of language-learning children: Persisting differences in family-child interactions observed in natural home environments. *Developmental Psychology*, 28(6), 1096-1105.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young American children*. Baltimore: Paul H. Brookes Publishing Co.
- Hart, B., & Risley, T. R. (1999). *The social world of children: Learning to talk*. Baltimore: Paul H. Brookes Publishing Co.
- Hawley, W. D., & Valli, L. (1999). The essentials of effective professional development: A new consensus. In G. Sykes & L. Darling-Hammond, (Eds.), *Handbook of Teaching and Policy*. New York: Teachers College Press.
- Hearing Evaluation Services of Buffalo, Inc. (n.d.) *What is an FM system?* Retrieved March 27, 2011, from <http://www.hearingevaluationservices.com/fmald/fmsystems/>.
- Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. New York: Cambridge University Press.
- Hoff, E. (2005). *Language development* (3rd ed.). Belmont, CA:Wadsworth.
- Hoffmeister, R. (2000) . A piece of the puzzle: ASL and reading comprehension in deaf children. In C. Chamberlain, J. P. Morford, & R. Mayberry (Eds.), *Language acquisition by eye* (pp. 143-163). Mahwah, NJ: Lawrence Erlbaum.
- Huttenlocher, J., Vasilyeva, M., Cymerman, E., & Levine, S. (2002). Language input and child syntax. *Cognitive Psychology*, 45, 337-374.
- Johnson, H. (2004). US deaf education teacher preparation programs: A look at the



- present and a vision for the future. *American Annals of the Deaf*, 149, 75-91.
- Johnson, R., Liddell, S., & Erting, C. (1989). *Unlocking the curriculum: Principles for achieving access in deaf education* (Gallaudet Research Institute Working Paper 89-3). Washington, DC: Gallaudet University.
- Jones, T. & Ewing, K. (2002). An analysis of teacher preparation in deaf education: Programs approved by the Council on Education of the Deaf. *American Annals of the Deaf*, 147(5), 71-78.
- Justice, L. M., & Ezell, H. K. (2002). Use of storybook reading to increase print awareness in at-risk children. *American Journal of Speech-Language Pathology*, 11, 17-29.
- Kennedy, M. M. (2005). *Inside teaching: How classroom life undermines reform*. Cambridge, MA: Harvard University Press.
- Kirkland, L. D., & Patterson, J. (2005). Developing oral language in primary classrooms. *Early Childhood Education Journal*, 32(6), 391-395.
- Ladd, P. (2003). *Understanding Deaf Culture: In search of Deafhood*. Buffalo, NY: Multilingual Matters LTD.
- Lane, H. (1999). *The mask of benevolence: Disabling the deaf community*. (2<sup>nd</sup> ed.). San Diego, CA: Dawn Sign Press.
- Lane, H., Hoffmeister, R. & Bahan, B. (1996). *A journey into the Deaf-World*. San Diego, CA: Dawn Sign Press.
- Lederberg, A., & Everhart, V. (2000). Conversations between deaf children and their hearing mothers: Pragmatic and dialogic characteristics. *Journal of Deaf Studies and Deaf Education*, 5(4), 303-322.
- Levi, D.H. (1989). *A very special friend*. Washington DC: Kendall Green Publications.
- Lickteig, M., & Russell, J. (1993). Elementary teachers' read-aloud practices. *Reading Improvement*, 30, 202-208.
- Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record*, 91(4), 509-536.
- Lobato, J. (2003). How design experiments can inform a rethinking of transfer and vice versa. *Educational Researcher*, 32(1), 17-20.
- Lonigan, C. J., Anthony, J. L., Bloomfield, B. G., Dyer, S. M., & Samwel, C. S. (1999). Effects of two shared-reading interventions on emergent literacy skills of at-risk preschoolers. *Journal of Early Intervention*, 22(4), 306-322.
- Lonigan, C. J., & Whitehurst, G. J. (1998). Relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly*, 13(2), 263-290.
- Lortie, D. C. (1975). *Schoolteacher*. Chicago: University of Chicago Press.
- Mahshie, S.N. (1995). *Educating deaf children bilingually*. Washington, DC: Pre-College Programs, Gallaudet University.
- Mayberry, R. I., (1994). The importance of childhood to language acquisition: Insights from American Sign Language. In J.C. Goodman & H.C. Nusbaum (Eds.), *The development of speech perception : The transition from speech sounds to words*. Cambridge, MA: MIT Press.
- Mayberry, R. I. (1993). First-language acquisition after childhood differs from second language acquisition: The case of American Sign Language. *Journal of Speech and Hearing Research*, 36, 1258-1270.

- Mayer, M. (1988). *Just my friend and me*. New York: Western Publishing Company, Inc.
- McConnell, T. J., Lundeberg, M. A., Koehler, M. J., Urban-Lurain, M., Zhang, T., Mikeska, J., Parker, J., Zhang, M., & Eberhardt, J. (2008, January). Video-based teacher reflection: What is the real effect on reflections of inservice teachers? Paper presented at the International Conference of the Association of Science Teacher Educators, Saint Louis, MO.
- McKeown, M. G., & Beck, I. L. (2006). Educating young children's language interactions with stories. In D. K. Dickinson & S. B. Neuman (Eds.), *Handbook of early literacy research, Vol. 2*, (pp. 281-294). New York: The Guilford Press.
- Moats, L. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers.
- National Academy of Education (1985). *Becoming a nation of readers: The report of the Commission on Reading*. Washington, DC: Author.
- National Association of State Directors of Special Education, Inc. (2006). *Meeting the needs of students who are deaf or hard of hearing: Educational services guidelines*. Alexandria, VA: Author.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel. Executive Summary*. Washington, DC: National Institute for Literacy.
- Neuman, S.B. (1999). Books make a difference: A study of access to literacy. *Reading Research Quarterly*, 34(3), 286-311.
- Newell, W., & Caccamise, F. (1997). *Skills important for effective sign language and Sign Communication Proficiency Interview (SCPI) rating levels*. Rochester, NY: Rochester Institute of Technology, National Technical Institute for the Deaf.
- Nover, S. M. & Andrews, J. F. (2000). Critical pedagogy in deaf education: Teachers' reflections on creating a bilingual classroom for deaf learners. Year 3 report (1999-2000). USDLC Star Schools Project Report No. 3.
- Orrill, C. H. (2001). Building technology-based, learner-centered classrooms: The evolution of a professional development framework. *Educational Technology Research and Development*, 49(1), 15-34.
- Padden, C. (2006). Learning to fingerspell twice: Young signing children's acquisition of fingerspelling. In B. Schick, M. Marscharck, & P. E. Spencer (Eds.), *Advances in the sign language development of deaf children* (pp. 189-201). New York: Oxford University Press.
- Padden, C. & Ramsey, C. (2000). American Sign Language and reading ability in deaf children. In C. Chamberlain, J. P. Morford, & R. Mayberry (Eds.), *Language acquisition by eye* (pp. 165-189). Mahwah, NJ: Lawrence Erlbaum.
- Padden, C., & Ramsey, C. (1998). Reading ability in signing deaf children. *Topics in Language Disorders*, 18(4), 30-46.
- Parasnis, I. (1996). On interpreting the Deaf experience within the context of cultural and language diversity. In I. Parasnis (Ed.), *Cultural and language diversity and the Deaf experience* (pp. 3-19). New York: Cambridge University Press.
- Pearson, P. D. (2001). Learning to teach reading: The status of the knowledge base. In C.M. Roller (Ed.), *Learning to teach reading: Setting the research agenda* (pp. 4-19). Newark, DE: International Reading Association.

- Pearson Early Learning. (2006). *Read together, talk together: A dialogic reading program for young children*. Available from Pearson Early Learning at [www.PearsonEarlyLearning.com](http://www.PearsonEarlyLearning.com).
- Piaget, J. (1954). *The origins of intelligence in children*. New York: Basic Books.
- Pilkey, D. (1991). *Dragon tales*. New York: Orchard Books.
- Plessow-Wolfson, S. & Epstein, F. (2005). The experience of story reading: Deaf children and hearing mothers' interactions at story time. *American Annals of the Deaf*, 150(4), 369-378.
- Quigley, S. P. & Paul, P. V. (1984). *Language and deafness*. San Diego, CA: College Hill Press.
- Ramsey, C. L. (1997). *Deaf children in public schools: Placement, context, and consequences*. Washington DC: Gallaudet University Press.
- Reutzel, D.R. (2001). New thinking on read-aloud. *Instructor*, 110(8), 23-24.
- Rich, P. J. & Hannafin, M. (2009). Video annotation tools: Technologies to scaffold, structure, and transform teacher reflection. *Journal of Teacher Education*, 60(1), 52-67.
- Rothenberg, J. (1997) *Inside-out grandma: A Hanukkah story*. New York: Hyperion Books.
- Saunders, W., Foorman, B., & Carlson, C. (2006). Is a separate block of time for oral English language development in programs for English learners needed? *Elementary School Journal*, 107, 181-198.
- Schleper, D.R. (1996). Principles for reading to deaf children. Retrieved January 13, 2007 from <http://www.gallaudet.edu/~pcnmplit/15princ.html#5>.
- Sieber, J. E. (1998). Planning ethically responsible research. In L. Bickman & D. Rog (Eds.) *Handbook of applied social research methods* (pp. 127-156). Thousand Oaks, CA: Sage Publications.
- Sénéchal, M., LeFevre, J., Thomas, E.M., & Daley, K.E. (1998). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly*, 33(1), 96-116.
- Shanahan, T. (2006). Relations among oral language, reading, and writing development. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.) *Handbook of writing research*, (pp. 171-186). New York: Guilford Press.
- Shavelson, R. J., Phillips, D., C., Towne, L., & Feuer, M. (2003). On the science of education design studies. *Educational Researcher*, 32(1), 25-28.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Shulman, L. S., & Shulman, J. H. (2004). How and what teachers learn: A shifting perspective. *Journal of Curriculum Studies*, 36(2), 257-271.
- Singleton, J. L., Morgan, E. D., DiGello, E., Wiles, J. & Rivers, R. (2004). Vocabulary use by low, moderate, and high ASL-proficient writers compared to hearing ESL and monolingual speakers. *The Journal of Deaf Studies and Deaf Education*, 9(1), 86-103.
- Sipe, L. R. (2000). The construction of literary understanding by first and second graders in oral response to picture storybook read-alouds. *Reading Research Quarterly*, 35(2), 252-275.
- Snow, C. E., Burns, M. S., & Griffin, M. (1998). *Preventing reading difficulties in young*

- children*. Washington, D.C.: National Research Council, National Academy of Sciences.
- Snow, C. E., Griffin, M., & Burns, M. S. (Eds.) (2005). *Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco: Jossey-Bass.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360–407.
- Stokoe, W. C. (1960). Sign language structure: An outline of the visual communication systems of the American Deaf. *Studies in Linguistics, Occasional papers* 8. Silver Spring, MD: Linstock Press.
- Stokoe, W. C. (2005). Sign language structure: An outline of the visual communication systems of the American Deaf. *Journal of Deaf Studies and Deaf Education*, 10(1), 3-37.
- Storch, S. A. & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38(6), 934-947.
- Storch, S. A., & Whitehurst, G. J. (2001). The role of family and home in the literacy development of children from low-income backgrounds. In W. Damon (Series Ed.) & P. R. Britto & J. Brooks-Gunn (Vol. Eds.), *New directions for child and adolescent development: Vol. 92* (pp. 53-71). San Francisco: Jossey-Bass.
- Strong, M. & Prinz, P. M. (1997). A study of the relationship between American Sign Language and English literacy. *Journal of Deaf Studies and Deaf Education*, 2(1), 37-46.
- Supulla, S.J. (1992). *The book of name signs: Naming in American Sign Language*. San Diego, CA: Dawn Sign Press.
- Teale, W. H., & Martinez, M. G. (1996). Reading aloud to young children: Teachers' reading styles and kindergartners' text comprehension. In C. Pontecorvo, M. Orsolini, B. Burge, & L. B Resnick (Eds.), *Children's early text construction* (pp. 321-344). Mahwah, NJ: Erlbaum.
- Teale, W. H., & Sulzby, E. (Eds.). (1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.
- Tennant, R. A. & Brown, M. G. (1998). *The American Sign Language handshape dictionary*. Washington DC: Gallaudet University Press.
- Torgesen, J. K. (2005). Recent discoveries on remedial interventions for children with dyslexia. In M. J. Snowling & C. Hulme (Eds.), *The science of reading: A handbook*, (pp. 521-537.) Malden, MA: Blackwell Publishing.
- United States Department of Education. (2007, February 8). *What Works Clearinghouse intervention report: Dialogic reading*. Retrieved December 12, 2010 from [http://ies.ed.gov/ncee/wwc/pdf/WWC\\_Dialogic\\_Reading\\_020807.pdf](http://ies.ed.gov/ncee/wwc/pdf/WWC_Dialogic_Reading_020807.pdf).
- Urbani, J. M. (2008). The development and pilot of a survey: Classroom practices with read-alouds in American Sign Language. Unpublished position paper, University of California, Berkeley.
- Vaughn, S., Mathes, P., Linan-Thompson, S., Cirino, P., Carlson, C, Pollard-Durodola, S., Cardenas-Hagan, E., & Francis, D.J. (2006). Effectiveness of an English

- intervention for first-grade English language learners at risk for reading problems. *The Elementary School Journal*, 107(2), 153-180.
- Vgotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Ward, C. (1988). *Cookie's week*. New York: G. P. Putnam's Sons.
- Wasik, B. A., & Bond, M. A. (2001). Beyond the pages of a book: Interactive book reading and language development in preschool classrooms. *Journal of Educational Psychology*, 93, 243-250.
- Whitehurst, G. J., Arnold, D.S., Epstein, J.N., Angell, A.L., Smith, M., & Fischel, J.E. (1994). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology*, 30(5), 679-689.
- Whitehurst, G. J., Epstein, J. N., Angell, A. L., Payne, A. C., Crone, D. A., & Fischel, J. E. (1994). Outcomes of an emergent literacy intervention in Head Start. *Journal of Educational Psychology*, 86(4), 542-555.
- Whitehurst, G. J., Falco, F. L., Lonigan, C. J., Fischel, J. E., DeBaryshe, B. D., Valdez-Menchaca, M. C., & Caulfield. (1988). Accelerating language development through picture book reading. *Developmental Psychology*, 24(4), 552-559.
- Whitehurst, G. J. & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development*, 69(3), 848-872.
- Whitehurst, G.J., & Lonigan, C.J. (2001). Emergent literacy: Development from pre-readers to readers. In S.B. Neuman & K.K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 11-29). New York: Guilford Press.
- Whitehurst, G.J., Zevenbergen, A.A., Crone, D.A., Schultz, M.D., Velting, O.N., & Fischel, J.E. (1999). Outcomes of an emergent literacy intervention from Head Start through second grade. *Journal of Educational Psychology*, 91(2), 261-272.
- Wilbur, R. B. (2000). The use of ASL to support the development of English and literacy. *Journal of Deaf Studies and Deaf Education*, 5(1), 81-104.
- Williams, S. (1989). *I Went Walking*. San Diego, CA: Red Wagon Books/Harcourt Inc.
- Wolfe, T., Want, S.C., & Siegal, M. (2002). Signposts to development: Theory of mind in deaf children. *Child Development*, 73(3), 768-778.
- Wood, A. (1984). *The napping house*. San Diego, CA: Harcourt Brace & Company.
- Wood, M. & Salvetti, E. (2001). Project story boost: Read-alouds for students at risk. *The Reading Teacher*, 55(1), 76-83.
- Yin, R. (2003). *Case study research design and methods*, (3<sup>rd</sup> ed.) Thousand Oaks, Sage Publications.

Appendix A  
Teacher Questionnaire

*Implications of a Dialogic Reading Intervention in Deaf Classrooms*  
Jacquelyn M. Urbani UC Berkeley

Teacher: \_\_\_\_\_

**How would you describe the following language and literacy goals  
for your students currently?**

	<i>very important</i>	<i>somewhat important</i>	<i>not a priority at this time</i>	<i>not applicable</i>
1. Development of <b><i>Receptive</i></b> signed language skills (including ASL grammar, vocabulary, fingerspelling, and classifiers)				
2. Development of <b><i>Expressive</i></b> signed language skills (including ASL grammar, vocabulary, fingerspelling, and classifiers)				
3. Development of spoken English and speechreading skills				
4. Development of English skills for <i>reading</i>				
5. Development of English skills for <i>writing</i>				
6. Continuing development of home language, if not English (written, signed, spoken)				
7. Development of academic language (vocabulary specifically needed to navigate school texts and assignments)				
8. Development of appropriate social language skills				

**Reading Information**

*All of these questions relate to reading books to your students. In hearing classrooms, this is typically called shared reading or Reading-Aloud, and involves the teacher reading to a group of students; within our classrooms, the books are signed. Please respond to the questions below with this context in mind.*

---

9. In choosing books to read to your class, are you:

\_\_\_\_ restricted to books in or related to the curriculum

\_\_\_\_ free to independently choose books

If you have freedom to pick books, how do you choose them?

---

10. How would you describe the level of interest and attention your students have for shared reading?

---

11. After reading to the students, do you keep the book available in the classroom library for them to read? \_\_\_\_ Yes \_\_\_\_ No  
If so, for how long?

---

12. Describe how students independently engage with the book after shared reading.

---

13. Do you re-read books to your class? \_\_\_\_ Yes \_\_\_\_ No  
Why or why not?

---

---

14. If you have students with mixed hearing and signing abilities, how do you address that during shared reading?

---

15. What are your biggest concerns for your students' literacy development? (Refer to the chart on page 1 as appropriate).

---

16. Do you believe shared reading can address the issues identified in previous question? How, or why not?

---

17. What reading curricula and programs do you use in your classroom?

---

18. What supports does your school *currently* have in place to help you with teaching literacy to your students?

---

19. What supports *could* your school implement which would better enable/assist you to teach literacy to your students?



---

20. Please describe your students:

Ages: \_\_\_\_\_

Grade level: \_\_\_\_\_

Number of students in the class: \_\_\_\_\_

\_\_\_\_ My students are all typically developing.

\_\_\_\_ I have an inclusive classroom, with some students with additional needs.

\_\_\_\_ I have a special needs class.

---

21. What is the language/modality you use in your classroom with students?

\_\_\_\_ ASL

\_\_\_\_ Signed English

\_\_\_\_ Sign-supported spoken English

\_\_\_\_ Other (please describe)

---

22. What is the language/modality you use for shared reading with students?

\_\_\_\_ ASL

\_\_\_\_ Signed English

\_\_\_\_ Sign-supported spoken English

\_\_\_\_ Other (please describe)

---

***Professional Information***

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23. Are you:

\_\_\_\_ Hearing

\_\_\_\_ Hard-of-Hearing

\_\_\_\_ a CODA (Child of a  
Deaf Adult )

\_\_\_\_ Deaf

\_\_\_\_ Late-Deafened

---

24. How many years have you been using sign language? \_\_\_\_

25. Where/how did you learn?

\_\_\_\_ Learned *before* my teacher  
preparation program

\_\_\_\_ Native user

\_\_\_\_ Learned *during* my teacher  
preparation program

\_\_\_\_ From friends

\_\_\_\_ Learned *after* my teacher  
preparation program

\_\_\_\_ Other (Please explain.)

---

26. How do you use sign language? (Indicate all that apply).

- ☐ Personally, with family  
☐ Socially, with friends  
☐ Professionally, in the workplace

---

27. a. If you have taken a formal sign language assessment (SCPI, ASLPI), what is your level?

b. How would you rate your own fluency in ASL?

---

28. a. Did your teacher preparation program have a prerequisite level of ASL/sign skills to *enter* the program? ☐ Yes ☐ No

b. If so, what was the level?

---

29. a. Did your teacher preparation program have a requisite level of ASL/sign skills to *graduate from* the program? ☐ Yes ☐ No

b. If so, what was the level?

---

30. In regards to literacy, what changes to teacher preparation programs for deaf and hard of hearing students do you suggest?

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31. What teaching certification(s) do you hold?

---

32. What college degrees do you have and/or what college programs are you currently enrolled in?

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Please offer any additional comments you think are related to this questionnaire.

*Thank you for your participation,  
Jacquelyn M. Urbani  
UC Berkeley*

Appendix B  
Teacher Interview Guide: Pre-Implementation

**Interview Questions:  
Further explanation from questionnaire**

In your response to the questionnaire, you wrote (quote from survey). Can you further explain your response please?

**Further explanation from observation**

During the observation, I noticed \_\_\_\_\_. Can you explain how/why \_\_\_\_\_?

**New questions for interview**

What is the purpose of reading books to your students?

Is there a specific time in the schedule you read books to students? When and why?

How many times per week do you read books to your students?

How long is your average shared reading session?

If you are unsatisfied with that amount of time, how often per week and how long would you like to use shared reading?

\_\_\_ times/week for \_\_\_ minutes

What prevents you from using shared reading as you desire?

What is your comfort level in signing picture books to your students? Please explain your response.

---

What do you like about reading picture books to your students?

---

What do you find difficult about reading picture books to your students?

---

What are typical problems with students that arise during reading?

---

How do you re-direct students during reading?

---

What are the titles of picture books you have read to your class in the past 5 school days?

Can I get a copy of your lesson plan and class schedule please?

---

Are other classroom staff involved during the reading?  
How or why not?

---

Do you engage in pre-reading activities for picture books with your students, and if so, what are some of your typical pre-reading activities?

---

Do you connect picture book shared reading to other literacy activities?  
How? (Please describe/explain.)

What kind of time and preparation is involved?

---

Do you connect picture book shared reading to other curricular areas?  
How?

What kind of time and preparation is involved?

---

What kinds of formal and informal assessments do you use for language and literacy?

---

Are these used to inform your instructional practices, and if so, how?

---

## Appendix C

### Teacher Interview Guide: End of Study

#### **Dialogic Reading**

- What are your thoughts on *if and how* dialogic reading influenced your students in terms of expressive language and reading skill?
  - What formal/informal classroom assessment measures support this?
- Do you feel you implement dialogic reading, as described in the training?
  - Do you/how do you feel implementing PEER and CROWD?
  - Do you/how do you feel you scaffold questions for different students?
- Describe the situation when it feels like dialogic reading is working for you and your students.
  - Describe when it feels like it's *not* working.
- Do you/how do you feel you connect the signed story to the printed text?
- Will you implement dialogic reading in your classroom next year? Why or why not?

#### **Issues with Implementation**

- What specific changes to dialogic reading have you had to implement to address the needs of your deaf students?
- What were the biggest problems with implementation?
  - With reading stories?
  - With connecting the signed story to print?
- Did we brainstorm together/did I offer suggestions which made a difference? If so, what were they?
  - What issues did we discuss but didn't find solutions to?
  - Are there problematic issues we haven't discussed yet?
- What were the easiest aspects of implementation?

#### **Training**

- Do you feel you were already doing dialogic reading before you participated in this study?
- Have there been changes to your teaching practice due to the training and on-going meetings? If yes, what are they?
- Do you have suggestions or comments for improving the training?

#### **How can I help future teachers better?**

- With training?
- With implementation?
  - With signing the story
  - With connecting the signed story to print
- What did you like/not like about your study schedule? (1-2 week intensive, PA; 1-4x/month, CA)
  - What recommendations would you make about future trainings?

- Should I even continue to work with teachers on dialogic reading? Why or why not?

**Collaboration**

- How did collaboration (with me, with other teachers or staff) benefit and/or hamper your teaching?
  - How did you collaborate with the story reading? With literacy lessons?

Appendix D  
Observation Protocol: Dialogic Reading Strategies

**Dialogic Reading Strategy: Definitions & Examples for Coders**

The purpose of these teacher communications is to **encourage students to use and expand on language in increasingly complex ways**. Teachers elicit active participation by the students. These communications are considered ideal for furthering student language development.

Prompt: (Completion, Recall, Open-Ended, Wh-Word, Distancing)

Evaluation

Expansion

Repeat

**Dialogic Reading Strategy**

<i>Teacher Communications</i>		<i>Examples</i>
<b>Prompt=</b>		
<b>Completion=(C)</b> ask student to complete a phrase		Corduroy lost a _____.
<b>Recall=(RL)</b> ask child to remember details <ul style="list-style-type: none"> <li>A variety of questions could be used for the purposes of recall, so this will most likely be part of a multiple code</li> <li>Tend to occur before or after reading, not during (during reading tends to be a comprehension check)</li> </ul>		Do you remember what happened with the security guard?
<b>Open-Ended= (O-E)</b> encourage to discuss story ideas and use new words, "How...? Tell me... What happened... DO-DO" <ul style="list-style-type: none"> <li>"What happened?" is coded as an "open-ended question" because it is expecting a complex response</li> </ul>		What happens when Corduroy looks for his button? (First he gets on the escalator, then he searches through the beds, then he knocks down the lamp...)
<b>Wh-word Questions=</b> <i>These may overlap with other codes, such as comprehension checks and recall prompts.</i>	<b>Who?=</b>	Who bought Corduroy? Who found Corduroy in the bed?
	<b>What questions=</b> Expected response of 1-2 words; child is labeling an object, function, attribute, or action <ul style="list-style-type: none"> <li>"What happened?" is not coded as a "wh-word question" but an "open-ended question" because it's not asking for a brief answer but is expecting a more complicated response</li> </ul>	What is that? (A bear)  What is the girl doing? (Sewing the button)

	<b>Which=</b>	Which toy does the girl want?
	<b>When=</b>	When did Corduroy look for his button?  When did the girl come back to the store?
	<b>Where=</b>	Where does Lisa live?
	<b>Why, FOR-FOR?=</b>	Why was Corduroy sad? Corduroy pulls on the bed, FOR-FOR?
<b>Distancing=(DS)</b> Connect something in book to child's life <ul style="list-style-type: none"> <li>These will likely be coded both for the kind of question (yes/no; wh-word) and distancing</li> </ul>		Have you been on an escalator?  What kind of toys do you have?
<b>Evaluate=(EV)</b> Provide gentle correction to student misinformation		That is not an elevator. It's called an escalator.
<b>Expand=(EXD)</b> Provide further information <ul style="list-style-type: none"> <li>In contrast to "explanation," which provides only a simple definition, expansions add new information to provide further context for the concept</li> </ul>		People live in many types of housing. Lisa lives in an apartment building with many floors. (discussion of apartments vs. houses)
<b>Repeat=(RP)</b> Prompt child to repeat correct response. <ul style="list-style-type: none"> <li>Follows immediately after discussion of topic to provide student further opportunities to review concepts and use language</li> <li>This code is used when <i>students</i> are encouraged to repeat information. This is in contrast to the "repetition" category, where the teacher is repeating information</li> </ul>		(Discussion of reasons why Lisa's mom does not let her buy Corduroy). Tell me again why Lisa's mom didn't want to buy Corduroy.

*Pearson Early Learning, 2006*



Appendix E  
Observation Protocol: Categories of Interactions

**Typical Categories of Interactions: Definitions & Examples for Coders**

With this style of story reading, the **teacher takes on an active role** while the **students are more passive** (teacher-led activity). The teacher seems more concerned with managing the behavior of students and checking basic comprehension than providing or facilitating opportunities for discussion. These codes focus on communication by the teacher, not by the student. Several of these communications are considered less than ideal for furthering student language development; however, others do promote student language use.

<i><b>Categories of Interactions</b></i>	<i><b>Examples</b></i>
<b>Directives=(Dir)</b> Request for <i>nonverbal</i> action	Turn the page. Bring me that pen.
<b>Imitative directives=(I-Dir)</b> Labeling with request to imitate	Bear. You sign that.
<b>Pointing request =(PR)</b> Expected response is pointing	Where is the button?
<b>Yes/no questions =(Y/N)</b> Expected answer is yes/no or nod of head <ul style="list-style-type: none"> <li>Often a multiple code, especially with comprehension check, clarification, or recall</li> </ul>	Does Corduroy have a button?
<b>Labeling =(L)</b> Labeling of objects or events, often in response to student comment or question <ul style="list-style-type: none"> <li>Teacher is providing the information. This is in contrast to “simple what question,” in which teacher is looking for student to provide information</li> </ul>	It’s a bear.
<b>Explanation=(Exp)</b> Teacher provides basic definition of a term or explanation. <ul style="list-style-type: none"> <li>Providing more information than a simple label</li> </ul>	A shopping mall has many stores all in one place.
<b>Comprehension checks=(C✓)</b> Questions to ensure students understand plot line. <ul style="list-style-type: none"> <li>Comprehension checks will co-occur with other kinds of questions/prompts</li> <li>This requires careful watching/analysis of interactions on video to ascertain purpose of teacher. Is she checking comprehension (Do you know?) or just asking students to participate/provide information.</li> </ul>	Do you know why Corduroy is in the bed?  Why won’t Lisa’s mom let her buy Corduroy?

<b>Clarification=(CL)</b> Teacher asks student to clarify their question or comment.		What did you sign about Corduroy's button?
<b>Criticism=(C-)</b> Disapproval <ul style="list-style-type: none"> <li>• Could be coded for answers or behavior</li> </ul>		No, that's not a bear.  Stop chatting with your friend.
<b>Praise=(P+)</b> Praise		Right! Good job!
<b>Confirmation=(Con)</b> Acknowledgement that student provided correct response. <ul style="list-style-type: none"> <li>• Purpose is to confirm correct answer to a question, not simply to repeat student comment (which would be Repetition).</li> </ul>		Yes, that's a bear.
<b>Repetition:</b> This code indicates the teacher's communication. This is in contrast to the "Repeat" prompt, which encourages student language use. <ul style="list-style-type: none"> <li>•</li> </ul>	<b>Repetition: Same Elements</b> <b>=(R/SE)</b> Teacher repeats student's comment	Student: Corduroy lost a button. Teacher: Corduroy lost a button.
	<b>Repetition: Reduced Elements</b> <b>=(R/RE)</b> Teacher repeats only part of student's comment	Student: Corduroy lost a button. Teacher: Button.
	<b>Repetition: Added Elements</b> <b>=(R/AE)</b> Teacher repeats phrase of student and adds new information <ul style="list-style-type: none"> <li>• May be coded with expand</li> </ul>	Student: Corduroy lost a button. Teacher: Corduroy lost a button and now he has to go look for it in the store.
<b>Redirection=(Rd)</b> Student comment off-task, teacher bringing the conversation back to the topic.		Yes, you have a bear too. But let's keep reading about Corduroy.
<b>Connecting to print=(C-P)</b> Teacher writes the word, sounds it out, fingerspells it (to emphasize spelling, not as natural aspect of ASL), points to the word in print, or explains various meanings of words.		"Bear" can mean an animal, or you can sign "I can't bear it," to mean that something is really hard.

<b>Adult-to-Adult Comment=(A2A)</b> Comment to staff, not to students	Can you copy these homework pages for me?
<b>Unable to Code=(UC)</b> Unable to code teacher language accurately because student comment occurs off video. For example, unable to determine if teacher is repeating (R/SE, R/RE, R/AE), expanding, or explaining.	
<b>DHH Communication=(DHH)</b> Aspects of the reading/interactions that are unique to Deaf learners.	
<b>Other=(O)</b> Not described previously (teasing, exclamations) <ul style="list-style-type: none"> <li>• Teasing</li> <li>• Exclamations</li> </ul>	You're silly! Oh my gosh!
<b>Management Topics</b>	
<b>Management=(M)</b> Techniques to manage the class using spoken or signed language	Are you ready? I'm waiting until all the students are sitting and watching appropriately.
<b>Attention getting=(Attn)</b> Techniques to manage the class not using language but physical motion or touch <ul style="list-style-type: none"> <li>• Using a hand flap to get students' attention would be coded as both "attention getting" and "DHH communication"</li> </ul>	Hand flap, wave, touching/tapping students, tapping table
<b>Logistical=(Log)</b> Moving seats, arranging sight lines, seating student who arrives mid-lesson	Can you see? Move your chair over here.

*Categories and definitions adapted from Whitehurst, et al., 1988*

Appendix F  
Database: Data Collection Table for Erin

<i>Date</i>	<i>Purpose &amp; Description</i>	<i>Data Sources</i>
2-1-6-10	Baseline data: Observation of full day of class.	<ul style="list-style-type: none"> <li>• Video: 2 stories</li> <li>• Video: Cookie Story</li> <li>• Field notes</li> </ul>
2-17-10	<p>Baseline data: Observation of full day of class.</p> <p>Observation of Story signing.</p> <p>Initial Meeting and Training: Discussed research purposes and method, collaboration and participation. First set of slides of powerpoint.</p> <p>Student assent form &amp; assessment.</p>	<ul style="list-style-type: none"> <li>• Audio: Intro Mtg/Training A</li> <li>• Video: Rdg Lesson-Birthday Cake</li> <li>• Video: Angela assent and assessments (Reading Attitude, Dolch Pre-primer</li> <li>• Field notes</li> </ul>
2-18-10	Completed training. Observations of Story Signing; Student Assessments.	<ul style="list-style-type: none"> <li>• Audio: Training part B</li> <li>• Video: Student Assessment: Jazlyn Assent and Reading attitude survey</li> <li>• Field notes</li> </ul>
2-22-10	Observation of Story Signing. Student assessments.	<ul style="list-style-type: none"> <li>• Video: Story-Napping House</li> <li>• Video: Student assessment: Angela retells</li> <li>• Video: Student assessments: Desiree Dolch &amp; reading attitude survey</li> <li>• Field notes</li> </ul>
2-23-10	<p>Teacher interview &amp; meeting.</p> <p>Observation of Story Signing.</p> <p>Observation of ELA-writing/"run."</p> <p>Student assessments: retells.</p>	<ul style="list-style-type: none"> <li>• Audio: Teacher interview &amp; Meeting</li> <li>• Video: Story re-tell, Napping House</li> <li>• Video: Story reading: Dr. Suess Sleeping</li> <li>• Video: ELA observation: "run" lesson</li> <li>• Video: ELA observation: writing</li> <li>• Video: Student assessment: Angela retell</li> <li>• Video: Student assessment: Jazlyn retell</li> <li>• Field notes</li> </ul>

2-24-10	Observation of Lesson.	<ul style="list-style-type: none"> <li>Field notes</li> </ul>
3-17-10	Observation of Story. Observation of Lesson.	<ul style="list-style-type: none"> <li>Video: Story-Little Cloud</li> <li>Video: Grammar Lesson</li> <li>Field notes</li> </ul>
3-18-10	Meeting. Observation of lesson. Student assessment: retells.	<ul style="list-style-type: none"> <li>Audio: meeting 3-18</li> <li>Video: Grammar lesson</li> <li>Video: Desiree retell Little Cloud</li> <li>Field notes</li> </ul>
3-19-10	Training with Deborah. Student assessments: retells.	<ul style="list-style-type: none"> <li>Video: Training w/Deborah</li> <li>Video: Student retells</li> <li>Field notes</li> </ul>
3-22-10	Observation of story. Student assessments: retells.	<ul style="list-style-type: none"> <li>Student retells</li> <li>Video: Shapes of clouds</li> <li>Video: Desiree retell Napping House</li> <li>Field notes</li> </ul>
3-23-10	Meeting. Observation of stories. Student assessments.	<ul style="list-style-type: none"> <li>Audio: meeting, 3-23</li> <li>Video: Reading Lesson, Little Cloud</li> <li>Video: Reading Lesson, Little Cloud, 2<sup>nd</sup> group</li> <li>Student Assessments: Expressive One Word</li> <li>Field notes</li> </ul>
3-24-10	Observation of stories.	<ul style="list-style-type: none"> <li>Video: Deborah, Corduroy</li> <li>Video: Deborah, Corduroy, 2<sup>nd</sup> group</li> <li>Field notes</li> </ul>
4-26-10	Meeting with Deborah. Observation of story. Student assessments: retells.	<ul style="list-style-type: none"> <li>Video: Deborah mtg</li> <li>Video: Deborah, 3 Little Pigs</li> <li>Video: Corduroy retellings from Erin of Desiree, Angela, and Jazlyn</li> <li>Field notes</li> </ul>

4-27-10	Meeting. Observation of story signing. Observation of student retells.	<ul style="list-style-type: none"> <li>• Audio: Mtg w/Erin</li> <li>• Video: read "The True Story of the 3 Little Pigs."</li> <li>• Video: Desiree, Angela, Jazlyn retell of page of "True Story."</li> <li>• Video: Desiree retelling of Corduroy with book</li> <li>• Video: Angela retelling of Corduroy with book</li> <li>• Field notes</li> </ul>
4-28-10	Exit meeting with teachers. Observation of story signing. Modeling of story signing.	<ul style="list-style-type: none"> <li>• Audio: Wrap up meeting with Erin and Rachel</li> <li>• Video: Deborah read 3 Pigs again</li> <li>• Video: Jaci, "Paper Bag Princess"</li> <li>• Field notes</li> </ul>
4-29-10	Student assessments: retells.	<ul style="list-style-type: none"> <li>• Video: Student retells of PaperBag Princess</li> <li>• Video: Retelling of 3 little pigs: kids all took a page and described story</li> <li>• I did retellings with the Angela, Desiree and Jazlyn of Paper Bag Princess.</li> <li>• Field notes</li> </ul>

Appendix G  
Full Description of Ariella's Story Signing/Read Aloud: *Inside-Out Grandma*

Ariella chose books for story signings/read alouds that introduced or supported new concepts. She aimed to read stories outside of the curriculum three times per week, but often found she ran out of time, and then did not finish reading and/or was not able to return to that book later.

For this story signing/read aloud, Ariella had chosen a book about Hanukkah titled, *Inside-Out Grandma: A Hanukkah Story* (Rothenberg, 1997). She sat in the middle of a kidney-shaped table, with the nine students seated around her. She held the book in her left hand while she signed with her right and voiced, calling for students' attention, and reading the title. A student, Mark, said he did not know what that meant, and asked her to explain. Another student repeated the title and added gestures, and Ariella responded, "She went outside and inside, yes. Inside out." She explained that there would be new words in the story, and that she would write them on the board. She wrote the author's name and the title on the board. She added that she had looked through the story and found new words, said and signed them, and wrote them on the board. These words were *gelt*, *latkes*, and *Rosie Posie*. Mark asked what *Rosie Posie* meant, and another student told him it was her last name. Ariella made up a last name to rhyme with this student's first name, and asked if that was his last name. The student laughed, and Ariella told him she was creating a nickname.

Ariella held up the book again and explained that she would begin reading, and when she came to new words she would write them on the board and explain them for the students. She pointed to the menorah in the illustration and also drew one on the board. Pointing to the pictures in the book, Gabriel said, "Look, there's a pancake." Ariella explained that it was latkes, and pointed to the board where she had written the word. She explained that it was like a pancake, but was fried using oil. Jorge commented that they looked like muffins, but Ariella told him the latkes were flat. Jorge then said he thought they were cookies.

Ariella introduced the two main characters in the story, the grandmother and the granddaughter, Rosie, and began reading. She read about Rosie telling her grandmother that her clothes looked silly, but the grandmother responded that she had a good reason for wearing her clothes inside out, to remind herself to buy oil to fry the latkes. Ariella then asked the students what happened and what Rosie said. She asked six times in different ways without getting a response, and then asked if she should repeat the reading. She then re-stated that the grandmother was wearing her clothes inside-out and asked the students if they knew what that meant. To demonstrate, Ariella brought her coat to the table and put it on inside out, explaining that is how the grandmother was wearing her clothes. The students commented that this was silly. Ariella re-read the section, saying the grandmother was wearing her clothes in this manner to remind her of something. The students did not know what she needed to remember to buy. Ariella explained that it was oil, and asked if the students knew what this was. Gabriel said it was like gas. Ariella said that it was like gas, but not for the car, for frying the latkes. Gabriel asked what color the oil was, and Ariella asked all the students if their moms used oil to fry food. Jorge said that his mother cooked eggs in oil. Meanwhile, another student, Selena, had taken off her sweatshirt, turned it inside-out, and put it back on. She exclaimed, "Look! My shirt is on

inside out!” Ariella commented on how she looked cute, and asked if the kids understood what inside-out meant now. She then explained that latkes were made from potatoes, and wrote “potatoes” on the board.

Ariella continued reading the story, with Rosie asking her grandmother how wearing her clothes inside out reminded her to buy things. Ariella asked what the grandmother wanted to remember to buy, with a few students responding “potatoes” and “oil.” Ariella asked the students why the grandmother needed the oil. She asked this four times without getting a correct response from the students. She continued reading, with the grandmother commenting about the grandfather’s “coppery red hair” (Rothenberg, 1997, p. 7). Ariella explained that copper was a metal and asked if they knew what that meant. Ariella picked up a chair and showed them its leg, saying that it was metal, but copper was a red metal. Selena commented that she had metal on her tap shoes for dancing.

At this point the classroom phone began to ring. Selena yelled, “Somebody answer the phone!” Ariella said she was going to ignore the phone and continue reading. She asked the students if they had red hair, and then asked who did have red hair. Vicky signed that I had red hair and so did Rosie in the book. Ariella acknowledged her comment, and then got up to answer the phone, handing the book to Shelley to continue reading. Shelley began reading using ASL only and not speaking. Ariella quickly returned to the table, and some of the kids asked her to use her voice to tell the story. She continued asking who had red hair. The kids mentioned people they knew, but Ariella asked who in the book had red hair, commenting that the grandfather had red hair, asking what his name was, and writing it on the board.

Cameron commented that he could not hear. Ariella got up from the table to replace his hearing aid battery, again passing the book to Shelley, who began using a different sign name for Rosie than Ariella had been using. When Ariella finished assisting Cameron, she took the book again, and resumed reading, saying that when the grandmother thinks of her husband’s red hair she also remembers something else. Selena guessed that she remembered to buy oil and potatoes. Another student guessed that she remembered to wash her big red hair.

Ariella referred to the illustration of the family and asked what the grandmother would make now. Gabriel suggested that she would make spaghetti. Ariella said, “Is this spaghetti? This is pennies. Pennies in a jar.” She continued reading about how the grandmother would use the pennies to buy the oil, explaining that the pennies were called Hanukkah gelt, and pointed to the word on the board. Ariella explained that gelt were really chocolates covered in gold paper. Gabriel asked if they were like a dollar. Ariella said they were gold pennies, and continued reading. Mark asked where Rosie’s mother was, and Ariella responded that she was not in the story. Jorge commented that his mom would have to make him pancakes. Ariella continued reading, pointed to a picture of a dreidel and asked the kids if they knew what it was. She wrote the word on the board and explained that they would play the dreidel game later. She continued reading, describing how the dreidel, gelt, and inside out clothes would remind the grandmother to buy oil. A student told Ariella she could not see, so Ariella had her switch seats to be near Cameron. Then Ariella commented again that they would be playing dreidel today, but clarified that they would be using fake money since they did not have gelt. Mark excitedly added that



he had a lot of gelt, so Ariella suggested that they use his gelt for the game. Mark then looked nervous, and said his dad needed the money for the bank.

Ariella returned to the story, with the grandmother explaining how the family celebrates Hanukkah. Ariella said, "I'm gonna read this page," and stopped signing, using her finger to track the print while she read the page aloud. At the end of the text she asked, using her voice and signs, "And what does grandmother need to buy?" A few students responded correctly that she needed to buy oil. Ariella read that the grandmother needed to feed the family and would be cooking. Gabriel said, "Yum! Pancakes!" Ariella asked what the other word for pancakes was in this story, and he answered correctly with "latkes." Jorge yelled, "Latte!" And Selena said, "Pancakes!" Ariella explained that latkes are like pancakes but are crunchy because they are fried in oil. At the end of the story, Ariella asked what Rosie's dad would say when he saw the grandmother with her inside-out clothes. Three of the students responded that the grandmother would remember she needed to buy oil. Ariella then dismissed the class for Physical Education. This story took 35 minutes.

## Appendix H

### Full Description of My Modeling of a Reading Lesson in Meg's Classroom

#### **My Modeling of a Reading Lesson**

The next day I taught a reading lesson, using a summary I had written of the story signing. I attempted to model several of the things Meg and I had discussed in our previous meeting, including stopping to re-read a sentence and changing it into ASL, modeling comprehension strategies, and determining the multiple meanings of words and which was appropriate for the sentence.

Using ASL, I began the lesson by explaining that we would be reading about the story *A Very Special Friend*. One student, Yasminah, had missed the story signing because she had been in speech therapy. I asked Mona to provide her with a summary of the story. Mona and I told students to watch this description, and Garrett and I assisted Mona with fingerspelling. At the appropriate time in Mona's summary, I commented that during the story signing the students had good ideas for how Frannie could learn sign language, and, in an effort to engage all the students in the discussion, I asked them to share those ideas with Yasminah. This summary and discussion took six minutes.

Next I explained our activity for the day, stating that we would read a summary of the story together, which was now displayed on the board using an ELMO. I told the students how I noticed they were able to identify many words, and complimented them on this, but relayed that I wanted them to think about what the words meant altogether. I explained that I wanted to practice reading with them, explicitly stating that we would read the words, stop at the end of sentences, and then go back to figure out meaning.

Only the first short paragraph was displayed on the board, which read, *Frannie did not smile. She was sad and lonely because she did not have friends.* I asked the students to sign/read as I pointed to the projected text. I stopped moving my finger at the end of the first sentence, but they continued on to the next one. I stopped and cautioned them not to only identify words, but to think about what the sentence means. I asked what the period meant and Garrett accurately explained it. I added that when reading, we should stop there to make sure we understand. I modeled, explaining, "First, read all the words, 'Frannie did not smile,' then stop at the period. Now change to ASL: FRANNIE HERSELF NOT SMILE." Then I asked why people do not smile, saying it may be because they are sad. The next sentence read: *She was sad and lonely because she did not have friends.* I pointed to the text while the students signed the words. They stopped at the period, possibly because it was at the end of the paragraph and easier to identify as a stopping point. Regardless, I complimented them, and then asked who could explain the sentence using ASL. Mona responded, and signed the sentence again, fingerspelling the word "lonely" because she did not know it. Naseer provided the sign and I wrote the word on the board, noting that we sometimes need to figure out words when we read. I covered up some letters of the word "lonely" on the board so that only the word "one" was visible within it. The kids were excited to see this. I then wrote "alone" on the board too, which they signed correctly ("lonely" and "alone" are signed differently), showing them the word "one." I wanted to differentiate the meaning of these two similar words, and told them that alone did not necessarily mean sad. I asked the students if they recalled a recent discussion about the holiday movie, *Home Alone*. Garrett commented about several of the fun things the main character did while alone. After several very

detailed descriptions by Garrett, I told him we were off the point a little bit and needed to return to the discussion of the words. He laughed, and I complimented him for his thorough explanations. I added to Garrett's comments, saying that in the movie the boy was left alone, and was relieved to have some time away from his parents and family. I emphasized that alone means that others are not around, which can be good. I contrasted this with "lonely," and connected it back to the end of the story, when the girls began school and Laura did not know anyone. Despite being around many kids in the school, I explained that Laura still felt lonely, feeling the other kids did not like her, which made her feel sad. I contrasted this to another example of "alone," describing a busy mother taking a bath, being interrupted by her children, and shouting, "Leave me alone!" The students laughed and Garrett told me I was funny. This part of the discussion took another seven minutes.

I commented that we had gotten off topic first with the movie and then with discussing words, and now should return to the story itself. I pointed to the text on the board, which read, *Each day Frannie got on her bike to look for friends in her neighborhood.* The students signed the words, and I stopped moving my hand when we got to the period. Naseer, however, continued into the next sentence. When he realized what he had done, he threw his hands into the air and looked frustrated with himself. I asked him teasingly if he was mad because he had not stopped, and he blamed the very small period. Again I explained that reading word for word does not make sense, so we need to read in a different way, and offered to model. I pointed to the first two words of the sentence, which the students signed as two distinct words. I got their attention and told them to sign them together for the concept "EVERYDAY." I complimented them again that they knew the words, but emphasized that once the words have been identified we need to figure out what it means, and here, these signs together meant, "EVERYDAY." Yasminah commented that because they were two separate words she thought they should be signed separately. Meg, who has been observing, answered her, saying we read the separate English words, but then think about what they mean and sign that in ASL.

I pointed again to the text, with the students signing *Each day* as "EVERYDAY" in ASL. We continued signing the words of the sentence. Students offered several different signs—none accurate—for *got* in the phrase *Frannie got on her bike*, including signs that meant *arrived* and *received*. I explained and offered examples of these, demonstrating that the sign "ARRIVE" means that you have arrived at a destination. I described how *I got home* means *I arrived home*. Using exaggerated signs to emphasize my point, I signed the shape of the house, and then signed "I GOT/RECEIVE MY HOUSE." The kids understood that this did not make sense conceptually and laughed. I pointed back to the sentence, my signing showing Frannie walking, and then signed "ARRIVE-AT" her bike. I asked if Frannie arrived at her bike, but the kids were not sure. I signed the sentence using the incorrect sign again, and then wrote on the board *got home*, explaining this is how we use the sign "GOT/ARRIVE." I then asked if this sign "GOT/ARRIVE" would be used with Frannie getting her bike. They responded appropriately that it was not. I then asked, exaggerating my signs for effect, if we could use the "GOT/RECEIVE" sign with her bike, and they again answered correctly. I then asked what the girl was doing with the bike so we could determine the right way to sign the sentence. A student replied that Frannie wanted to ride her bike. I then mimed getting

one leg up and over to sit on the bike, and then signed that I was pedaling and riding fast. Then I showed the ASL sign “GET ON” for what I had just mimed and explained how the two legs are represented by the two fingers in this handshape. The students began signing this themselves. We began the sentence again, with me pointing to each word. They all used the correct ASL sign for “GET ON” except for DC, who used the sign for *receive*. I pointed to him smiling, and he quickly changed to the sign for ARRIVE. I laughed and teasingly signed, “No! No!” He and the other students also laughed, and then he used the appropriate sign.

We continued reading the sentence (*Each day Frannie got on her bike to look for friends in her neighborhood*), and they again used separate signs for the phrase *look for*. I explained that these two words have a unique ASL sign for this meaning of *searching for* something. I asked the students what Frannie was looking for, and asked if she was looking for ice cream. They responded that she was looking for a friend, and used the appropriate one ASL sign instead of the two English words. I asked where she was looking for friend and pointed back to the sentence, which read, *in her neighborhood*. I used a sign for neighborhood, and asked how they signed it. Mona signed it like “CITY,” but with the *N* handshape. Yasminah signed it similar to Mona, but then added “HOOD” at the end. I asked, “Like the hood on your jacket?!” She laughed and nodded her head, and I asked if the houses in her neighborhood all had hoods they could pull up over them. The students all laughed, and I complimented Yasminah on knowing that word too. The discussion of this one sentence took eight minutes.

The lesson continued in this manner for another 19 minutes, during which we read another 12 sentences. These sentences were less complicated to change from English to ASL, but included several discussions around using conceptually accurate signs for English phrases (*too big*, meaning to tall, not too fat; *the truck pulled up to the house*, as *the truck drove and parked at the house*, not the SEE signs which would be *the truck grabbed up to the house*). I also explained the use of body shifts to indicate the various speakers in a conversation, and we reviewed the new vocabulary word, *furniture*, with Garrett offering an explanation.

We continued the lesson that afternoon, with me repeating that the focus not be on individual words but on overall meaning. We reviewed the most complicated sentence from the morning’s work, and then re-read quickly the sentences from the morning lesson. I pointed again to those sentences, asking students to use ASL to describe their meaning. This review took six minutes. We then began reading new sentences from the summary, continuing in the same manner of stopping at the end of each sentence, reviewing meaning and the use of conceptually accurate signs, using body shifts within conversation, and comprehending unknown words and new vocabulary. This second part of the summary reading took another 25 minutes.

I had also written 11 questions to accompany the summary, so we next read them together, first word for word, and then changing into ASL. After reading each question, we discussed the answer. We read the first few together, and then the students came to the board one by one to model the reading and work for each question. The questions served a variety of purposes, including the following:

- to check understanding of the story (What did Frannie’s dog do?)
- to check comprehension of vocabulary (Frannie wanted a friend who was “the right size.” What does that mean?)

- to offer open-ended responses (Tell me about Laura.)
- to allow students to offer personal suggestions (How can Frannie learn sign language?)
- to elicit predictions (What do you think will happen in school?)
- to connect the story to the students' own experiences (Who are your friends? What do you like to do together?)

Finally, I passed out the summary and questions to each student for homework. Reading these questions together had taken an additional 23 minutes.

Appendix I  
Special Friend Summary and Questions

**A Very Special Friend**

Frannie did not smile. She was sad and lonely because she did not have friends.

Each day Frannie got on her bike to look for friends in her neighborhood. Many of the kids were older than Frannie. They were too big. Other kids were too small. Frannie wanted a friend who was the right size and the same age.

One day Frannie saw a big moving truck pull up to a house on her street. She asked her mother, "What is happening?" Her mother said a new family was moving into the house. Frannie watched the furniture come off the truck. She saw chairs, a sofa, and a bed.

Then Frannie saw the new family. She began to smile because she saw a little girl! Frannie said, "Hi!" to the girl, but the girl did not talk back. The little girl began to sign. The girl's mom came over to Frannie and said, "This is Laura. She is deaf. She uses sign language."

Frannie began to cry. She ran home. Her mother said, "Why are you crying? What happened with your new friend?" Frannie kept crying. She said, "I don't know sign language. Laura and I can't talk, so we can't be friends." Frannie's mother said, "Yes you can! You can learn sign language. Maybe Laura can teach you."

Frannie looked out the window. She saw Laura pushing her baby doll. Frannie's dog jumped into the doll carriage! Frannie and Laura laughed. Laura signed, "Will you be my friend?" Frannie asked Laura's mom how to sign, "Yes!"

All summer Laura and Frannie played together. Laura taught Frannie many signs. Soon it was time for school again. Frannie was happy to see all her friends. But Laura became sad because she didn't know anyone. Then Frannie brought Laura over and said and signed, "This is my very special friend!"

1. Why was Frannie lonely?
2. Who are your friends? What do you like to do together?
3. Frannie wanted a friend who was “the right size.” What does that mean?
4. What is a moving truck?
5. Have you ever moved? What happens?
6. Tell me about Laura.
7. Why did Frannie cry and run home?
8. How could Frannie learn sign language?
9. What did Frannie’s dog do?
10. How does Laura feel when she is first at the school?
11. What do you predict will happen in school?

Dog      Cat  Fish      Bird	What are these?	_____
Blue      Red  Green      Orange	What do we call these things?	_____
Boy      Girl  Baby      Man	We call this group _____.	
Apple      Banana  Strawberry      Pear	What is the name for this group?	_____
Chair   Sofa   Bed	What is the name for these things?	_____

What does “furniture” mean?

What words can you make from the letters in “furniture?”