A PLAN FOR MENTORSHIP OF MINNESOTA FAMILIES WITH DEAF AND HARD OF HEARING CHILDREN

THIS PLAN IS AN OPTION FOR USE WITH FAMILIES WHO WANT TO LEARN AMERICAN SIGN LANGUAGE (ASL) AND BE EXPOSED TO DEAF CULTURE.

Minnesota Department of **Human Services**

A PLAN FOR MENTORSHIP OF MINNESOTA FAMILIES WITH DEAF AND HARD OF HEARING CHILDREN

This Plan is a suggested option for Teachers of the Deaf and Hard of Hearing, Parent Advisers and case managers to use in order to assist families who want to learn ASL and be exposed to Deaf Culture.

The information and materials included in this Plan were reproduced in part from two vital resources; The Deaf Mentor Curriculum Manual, SKI-HI Institute, Logan, UT; HOPE Inc., and The Deaf Mentor Trainer's Manual, SKI-HI Institute. These materials were used with the permission from SKI-HI Institute, Deaf Mentor Project, Logan UT; HOPE, Inc. A full copy of the Deaf Mentor Curriculum Manual may be purchased by contacting HOPE Inc. by telephone or fax at 1-435-245-2888. For more information on The Deaf Mentor Trainers' Manual, SKI-HI Institute, contact Paula Pittman, 435-797-5589.

The forms in this manual may be reproduced for use when working with families, school districts and mentors.

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INTRODUCTION

This document is written as a guideline for mentors, parents and school districts. The expectation is that the elements in this plan be used in conjunction with early intervention programming specific for deaf and hard of hearing children.

The materials included in this Plan are reproduced in part from the **SKI HI Institute, Deaf Mentor Project.** The Plan was written in response to the needs of families in Minnesota to be connected with the Deaf Community and to learn sign language. This Plan may also be beneficial when discussing communication methodology and considering home communication options and resources.

Sample documents have been included in this Plan and may be reproduced. A more comprehensive explanation of Bilingual-Biculturalism, Signed English, Cued English and the Deaf Mentor Curriculum are available upon request from the MN Resource Center: Deaf and Hard of Hearing and regional offices of Deaf and Hard of Hearing Services Division (see appendix). A published research article *The Deaf Mentor Experimental Project for Young Children Who are Deaf and Their Families* is included in the Appendix section of this Plan. The Final Report of the U.S. Department of Education, Office of Special Education, Early Education Programs for Children with Disabilities, Experimental Project CFDA 84.024H, Deaf Mentor Project is also available through the SKI-HI Institute for the cost of duplication; contact Paula Pittman at 435-797-5589.

DEAF MENTOR

The SKI-HI Institute has been involved in educating professionals who work with children who are deaf or hard of hearing and their families since 1972. The focus of the SKI-HI Program has always been to equip families with skills needed to foster language development in their child who is deaf or hard of hearing. A vital part of the SKI-HI Program is a professional called a Parent Adviser who is trained in the SKI-HI Curriculum. In Minnesota, Teacher of the Deaf and Hard of Hearing students are trained in SKI-HI, and function as the "Parent Adviser". Teachers of the Deaf and Hard of Hearing are a vital source of information regarding deafness, and issues related to hearing loss including the development of communication and language skills, hearing aid use, and auditory development.

The idea behind the SKI-HI Deaf Mentor Services is to provide families with information regarding their child's hearing loss, early communication and language development, hearing aids, auditory skill development, and speech development through the SKI-HI trained Parent Advisers/Teachers. While at the same time, **Deaf Mentors provide information regarding effective early visual communication, ASL, the Deaf Community, and Deaf Culture.** In this way, hearing families can gain information that will assist them in helping their child to achieve his or her full potential in both the hearing world and the deaf world. By teaching families and young children to effectively use ASL and feel comfortable in the Deaf Community, Deaf Mentor Services help children and families to become bilingual-bicultural, able to use both English and ASL and interact in both the hearing and deaf communities.

Deaf Mentors and Teachers of the Deaf and Hard of Hearing work together to coordinate services, develop consistency on the content of visits, help increase vocabulary, and target language the child and the family are developing. Family members learn the difference between signing English and using ASL, and may use both in ways that are appropriate for them and their child in the home. With this valuable communication input and guidance from both the Deaf Mentor and the Teacher of the Deaf and Hard of Hearing, the family and child become comfortable with both deaf and hearing persons. The child's lifetime opportunities to interact with and learn from both deaf and hearing communities are optimized. The involvement of adults who are deaf in the lives of very young children will help families attain the skills needed to create a language-rich and culturally-rich environment for their child.

QUALIFICATIONS / CHARACTERISTICS OF MENTORS

- ❏ Comfortable with and fluent in ASL

- ❏ Can communicate easily with hearing families:
  1) Good communication skills with hearing adults, and
  2) Good writing skills

- ❏ Comfortable with families of young children (experience working with young children or having young children of own preferred)

- ❏ Participates in Deaf Community activities

- ❏ Open-minded and supportive of family decisions

- ❏ Supportive of development of **both** English and ASL skills, as well as speech and listening development skills according to parent's desire

- ❏ Completed training provided by SKI-HI Institute or DHS-DHHSD

- ❏ Committed to annual mentor skill building as provided by DHS-DHHSD

ROLES & RESPONSIBILITIES OF MENTORS

❑ Make consistent weekly visits:
   1. Discuss child and family ASL progress,
   2. Review goals and activities established at previous visit,
   3. Interact with child utilizing ASL,
   4. Show family members how to use ASL,
   5. Help family members understand and appreciate Deaf Culture and participate in Deaf Community, and
   6. Discuss goals and activities for next visit.

❑ Complete lesson plans and reports; submit reports to the Teacher of Deaf and Hard of Hearing or other designee.

❑ Coordinate with other early intervention providers.

INTERVENTION PROCESS

Screening, Follow Up Screening, Referral to Audiologist

↓

CONFIRMED HEARING LOSS

↓

Referral to Interagency Early Intervention Committees (IEICs)

→

Early Hearing Detection Intervention (EHDI) Team, Teacher of the Deaf and Hard of Hearing, and Early Childhood Special Educator begin home visits.

↓

Communication Methodologies are discussed and chosen.

If a Sign Language program is not selected...

Continues with selected service in the IFSP / IIIP / IEP Plan

If a program of English and Sign Language is selected...

Teacher of the D/HH contacts the appropriate DHHSD regional office for DM referral list (see appendix). Teacher should obtain a signed release from family prior to contacting DHHSD staff.

↓

Initial visit takes place with Deaf Mentor, Teacher of the D/HH and family. This visit may require an interpreter.

↓

Deaf Mentor begins family training; no interpreter required.

↓

Deaf Mentor, Teacher of the D/HH and Early Childhood Special Educator collaborate on a regular basis; conduct joint visits quarterly.

COLLABORATION WITH EARLY INTERVENTION PROGRAMMING

The goal of the Deaf Mentor is to provide the family and child with an ASL role model, teach the family ASL in a formal and informal manner, and guide the family into the Deaf Community.

Teachers of the Deaf and Hard of Hearing are the vital link to families who will:
- Introduce Deaf Mentor services to families
- Provide the English component of the program
- Participate in joint visits with Deaf Mentors

Teachers of the Deaf and Hard of Hearing provide families with information and skill lessons in areas such as:
- Hearing aid use, audiological testing
- Communication development
- Communication methodology options
- Auditory development
- Language development

They also provide families with emotional support, provide resources for other developmental areas and coordinate services with other agencies.

Deaf Mentors and Teachers of the Deaf and Hard of Hearing can coordinate by:
- Understanding each other's role
- Exchanging home visit plans
- Maintaining regular contact
- Making joint visits quarterly
- Working toward similar goal

MENTORSHIP WAIVER OF LIABILITY

WAIVER OF LIABILITY AND HOLD HARMLESS AGREEMENT

1. In consideration for my child _____, receiving permission to participate in the Deaf Mentor Services, coordinated by the Department of Children Family and Learning (DCFL), Minnesota Department of Human Services-Deaf and Hard of Hearing Services Division (DHS-DHHSD), and/or local school district/other, I hereby RELEASE, WAIVE, DISCHARGE, and COVENANT NOT TO SUE the DCFL, DHS-DHHS and/or the local school district/other, their officers, servants, agents or employees (hereinafter referred to as RELEASEES) from any and all liability, claims, demands, actions and causes of action whatsoever arising out of or related to any loss, damage, or injury, including death, that may be sustained by my child, or to any property belonging to me while participating in such service, or while in, on, or upon the premises where the service is being, conducted.

2. I VOLUNTARILY CONSENT TO MY CHILD PARTICIPATING IN THE DEAF MENTORING SERVICE, **AS ALL SERVICES ARE UNDER MY DIRECT SUPERVISION** AND I ASSUME FULL RESPONSIBILITY FOR ANY RISKS OF LOSS, PROPERTY DAMAGE, OR PERSONAL INJURY, INCLUDING DEATH that may be sustained by my child, or any loss or damage to property owned by me, as a result of being engaged in such services.

3. I further hereby AGREE TO INDEMNIFY AND HOLD HARMLESS the RELEASEES from any loss, liability, damage, or costs, including court costs and attorney's fees, that may incur due to my participation in said activity.

4. It is my express intent that this Release, and Hold Harmless Agreement, shall bind the members of my family and spouse, if I am alive, and my heirs, assigns and personal representative, if I am deceased, and shall be deemed as a RELEASE, WAIVER, DISCHARGE AND COVENANT NOT TO SUE the above-named RELEASEES. I hereby further agree that this Waiver of Liability and Hold Harmless Agreement shall be construed in accordance with the laws of the State of Minnesota.

5. IN SIGNING THIS RELEASE, I ACKNOWLEDGE AND REPRESENT THAT I have read the foregoing Waiver of Liability and Hold Harmless Agreement, and understand it and sign it voluntarily as my own free act and deed; no oral representations, statements, or inducements, apart from the foregoing written agreement, have been made; I am at least (18) years of age and fully competent; and I execute this Release for full, adequate and complete consideration fully intending to be bound by the same.

DATED and SIGNED this _____ day of _____, 20__.

WITNESS:

_____   _____
                                                                        PARENT OR GUARDIAN

MENTOR SERVICES CONTRACT

This Agreement is entered into this _____ day of _____, 200___, by and between ~~the~~ _____ school district/other, and _____ (Deaf Mentor). The parties agree that: Deaf Mentor is willing to be contracted by _____ (school district/other) and that this school district/other is willing to contract with _____ as a Deaf Mentor, working within the terms and conditions below.

1. DESCRIPTION OF MENTOR DUTIES

The Deaf Mentor's primary duties will be to help the identified family or families learn and understand sign language, learn early visual techniques, learn about Deaf Culture and act as a guide for families to local Deaf Community activities. In addition, the Deaf Mentor will act as a role model for the child and family and will adhere to conduct appropriate of a mentor.

2. MANNER OF PERFORMANCE OF DEAF MENTOR'S DUTIES

The Deaf Mentor shall at all times faithfully, industriously, and to the best of his/her ability, experience, and talent, perform all mentoring duties that may be required to the reasonable satisfaction of contractor.

3. DURATION OF CONTRACT

The term of this contract shall be _____ months, commencing on _____, 200__, and terminating _____, 200_____, subject, however, to prior termination as provided in Sections 6.

4. COMPENSATION; REIMBURSEMENT

The rate of pay shall be $_____ dollars per hour payable ___weekly, ___bi-weekly or __monthly (check one). This compensation will be paid for up to _____ hours of mentoring services per week, which includes _____ hour/s for preparation and travel time.

5. NONDISCLOSURE OF INFORMATION CONCERNING FAMILY

The Deaf Mentor will not at any time, in any fashion, form, or manner, either directly or indirectly divulge, disclose, or communicate to any person outside of the IEP, IIIP or IFSP educational team any information of any kind, nature, or description concerning any matters affecting or relating to the family or school district business.

6. TERMINATION

In the event that the duties in this contract are not performed satisfactorily, the contractor may terminate this contract. If the family or school district/other no longer needs mentor services, then this agreement shall cease and terminate as of the last day of the month in which that decision is made.

7. WAIVER OR MODIFICATION INEFFECTIVE UNLESS IN WRITING

No waiver or modification of this agreement is valid unless in writing and duly executed by both parties.

8. BINDING EFFECT OF AGREEMENT

This agreement shall be binding on and inure to the benefit of the respective parties.

Executed on the date first above written.

School District/Other Representative   Deaf Mentor

_____   _____

INITIAL VISIT

Families will receive an explanation of Deaf Mentor Services during the initial visit by the Deaf Mentor and Teacher of the Deaf and Hard of Hearing. The following will be discussed:

❑ **Purpose of Deaf Mentor Services** within the Early Intervention Programming,

❑ **Importance of the research** promoting the emphasis and balance of two languages, i.e., a visual or auditory English and American Sign Language, with exposure to Deaf Culture,

❑ **Roles and responsibilities** of each person involved in Deaf Mentor Services: parents, family members, Deaf Mentor, Teacher of the D/HH, Early Childhood Special Educator, and DHHS Consultant,

❑ **Need for coordination** between Deaf Mentor, Teacher of the D/HH and the Early Childhood Special Educator

❑ **Importance of the Waiver of Liability** and establish guidelines for the family visits with emphasis that is not a babysitting service and the Mentors are never left alone with the child,

❑ **Purpose of Family Learning Plan** in coordinating family learning activities and determining scheduled meetings with family.

DEAF MENTOR CURRICULUM –
OVERVIEW OF LESSONS

The Deaf Mentor Curriculum has been organized into four sections: Introduction and Overview, American Sign Language (ASL) for Families, the Early Visual Communication Program, and the Deaf Culture Program.

There are 37 lessons in ASL for Families, which are designed specifically for Deaf Mentors as they guide families through the experience of learning and using ASL freely with their child and family. In addition, this section contains an introduction to Deaf Mentors that provides them with the basic information for using the lessons, a handout for hearing families that describes the process involved in learning ASL, and a transcription guide that will enable readers to understand the markings used in the curriculum to designate gloss for ASL.

The Early Visual Communication Program is comprised of 18 lessons that contain information gleaned from current research regarding how deaf parents create a visual environment in which they can effectively communicate in ASL with their young children who are deaf. These lessons will allow the Deaf Mentor to share with families some of the techniques and ideas that individuals who are deaf and fluent users of ASL use in natural, instinctive and spontaneous ways with young deaf children who are developing a first language.

The Deaf Culture Program is composed of 30 lessons divided into three sections: Deaf Culture, Deaf History and Famous Deaf People. The Deaf Culture Program is designed with the purpose of providing Deaf Mentors with information about the deaf world that can be shared with families so that they can begin to understand the depth and richness of Deaf Culture. It is not designed to be a comprehensive curriculum providing families with any and all information possible regarding Deaf Culture. It has been created to complement the lessons on ASL and Early Visual Communication because no language can be truly learned unless the cultural aspects of the people who use that language are also learned. The Deaf Culture Program was designed primarily as a starting place for hearing families to begin to learn about Deaf Culture, history and deaf persons, and the Deaf Community that they and their child will be involved in. Hearing families can use this information to better understand their child who is deaf or hard of hearing and the language of the deaf, and to begin to appreciate the culture and people who make up the Deaf Community.

FAMILY LEARNING PLAN

Date: _____   **Parents:** _____
Child: _____   **Mentor:** _____

1.   INTERACT WITH CHILD USING ASL

Daily Routine/Activity	Target ASL Expressions
a)	
b)	
c)	
d)	

2.   HELP FAMILY LEARN ASL

ASL/Early Visual Communication Lesson:

Activity:

Target ASL Sentences for Activity:

English	ASL Gloss

3.   HELP FAMILY UNDERSTAND AND APPRECIATE DEAF CULTURE / DEAF COMMUNITY

Deaf Culture Lesson:

Other Information/Questions from Family:

Deaf Community Activities:

Materials (books, tapes, etc.) for Family:

REPORTING PROCESS

In order to chart the progress of the Deaf Mentor services and the family learning, it is important to report what actually occurred during family training. It is possible the FAMILY TRAINING PLAN may change based on the needs of the family. The FAMILY TRAINING PLAN is used to **plan** the family visit and the WEEKLY REPORT is used to summarize the family visit. These reports should be completed for each family visit and shared quarterly with the Teacher of the Deaf and Hard of Hearing.

WEEKLY REPORT

Date of Visit:_____   Percent of visit interacting with child: _____ %

Length of Visit:_____   Percent of visit interacting with parents/family: _____ %

1.   New signs or ASL phases/sentences child used today (write down the signs and phrases/sentences; if
        more than 20 signs or sentences, report the number):

New Signs	New ASL Expressions

2.   New ASL lesson family learned today:

3.   New Early Visual Communication lesson the family learned today:

4.   New Deaf Culture lesson/information the family learned today:

5.   Deaf Community activities family participated in this week:

<u>Parent Comments:</u>

<u>Mentor Comments:</u>

RESOURCES

1. Minnesota Department of Education, Minnesota Resource Center: Deaf and Hard of Hearing: www.education.state.mn.us/mde/index.html The Resource Center has a lending library for Minnesota residence.

2. Minnesota Department of Human Services-Deaf and Hard of Hearing Services: www.dhhsd.org

3. Minnesota Department of Health: www.health.state.mn.us/divs/fh/mch/unhs/index.html

4. SKI-HI Institute, Deaf Mentor Project: www.skihi.org/DeafMent.html

5. Lifetrack Resources, www.lifetrackresources.org and www.mnhandsandvoices.org

APPENDIX

1. DHS -DHHSD Regional Offices

2. American Annals of the Deaf: <u>The Deaf Mentor Experimental Project for Young Children Who Are Deaf and Their Families</u>

DHS - DHHSD REGIONAL OFFICES

NORTHERN AREA:

DHHS NORTHEAST
820 N 9th St.
Virginia MN 55792-2346
888-234-1322 V; 218-748-2252 VP/local
IP# 206.51.195.20
866-488-3997 TTY
Email: dhhs.virginia@state.mn.us

Government Services Center
320 W 2nd St. Ste. 710
Duluth MN 55802
888-234-1322 V; 218-723-4962 VP/local
IP#207.171.103.52
866-488-3833 TTY
Email: dhhs.duluth@state.mn.us

DHHS NORTHWEST
616 America Ave. NW, Ste. 320
Bemidji MN 56601
888-663-8329 V/VP; 218-333-8283 V/local
IP#136.234.6.25
866-488-3940 TTY
Email: dhhs.bemidji@state.mn.us

715 11th St N, Ste. 200
Moorhead MN 56560
800-456-7589 V/VP; 218-291-5880 V/local
IP# 65.183.243.124
866-488-3829 TTY
Email: dhhs.fergusfalls@state.mn.us

CENTRAL AREA:

DHHS E/W CENTRAL
3333 W Division St., Ste. 209
St. Cloud MN 55301
800-456-3690 V; 320-255-3502 VP/local
IP#66.191.75.50
866-488-3909 TTY
Email: dhhs.stcloud@state.mn.us

SOUTHERN AREA:

DHHS SOUTHWEST
12 Civic Center Plaza, Ste. 1670
Mankato, MN 56001
507/389-1626 V/VP/local
IP# 24.159.219.114
866-266-2461 TTY
Email: dhhs.mankato@state.mn.us

DHHS SOUTHEAST
Cedarwood Plaza
4104 NW 18th Ave.
Rochester MN 55901
800-311-1148 V; 507-285-7295VP/local
IP# 66.191.138.62
866-266-3779 TTY
Email: dhhs.rochester@state.mn.us

METROPOLITAN AREA:

DHHS METRO
Site Address:
85 East 7th Place, Suite 105 (at Robert Street)
downtown St. Paul
Mailing Address:
444 Lafayette Road N.
St. Paul, MN 55155-3814
651/431-5940 V
651/964-1514 VP
IP# 63.231.241.106
1-888-206-6513 TTY
651/431-7587 FAX
Email: dhhs.metro@state.mn.us

For more information about our services, visit our web site at: **www.dhhsd.org**

THE DEAF MENTOR EXPERIMENTAL PROJECT FOR YOUNG CHILDREN

WHO ARE DEAF AND THEIR FAMLIES

by Susan Watkins, Paula Pittman, and Beth Walden

Watkins is director of research and resource development at the SKI-HI Institute, Utah State University, Logan, and was director of the Deaf Mentor Experimental Project at the institute. Pittman is a program coordinator at the SKI-HI Institute and was coordinator of the Deaf Mentor Experimental Project. Walden oversees evaluation and data management at the SKI-HI Institute and was data manager of the Deaf Mentor Experimental Project.

The Deaf Mentor Experimental Project investigated the efficacy of deaf mentor services to young deaf children and their families. These services focused on deaf adults (mentors), who made regular home visits to the children and their families; shared their language (American Sign Language), culture, and personal knowledge of deafness with the families; and served as role models for the children. The children also received regular home visits from a hearing parent adviser who helped the family promote the child's early listening, English, and literacy skills. The result was bilingual-bicultural home environment for these children. The children who received deaf mentor services were compared to matched children who did not receive these services but who received parent adviser services. Children receiving this early bilingual-bicultural programming made greater language gains during treatment time, had considerable larger vocabularies, and scored higher on measured of communication, language, and English syntax than the matched children.

The Deaf Mentor Experiment Project was conducted over a 3-year period a the SKI-HI Institute, Utah State University to investigate the effectiveness of deaf mentor services to young children who are deaf, ages 0-5 years, and their families.

With the expanded and deepened implementation of services to children with disabilities ages birth to 5 years brought about by Part H and the extension of Part B of the Individuals with Disabilities Education Act (IDEA), providers of early intervention services are being called upon to appropriately serve infants, toddlers, and preschoolers who are deaf and their families (National Early Childhood Technical Assistance System, 1995). An early intervention service option that could be of great importance to many young children is *deaf mentor home programming*…This early intervention service focuses on deaf adult mentors who make regular visits to young children who are deaf and their families and who share their language – American Sign Language (ASL) – culture, and personal knowledge of deafness with the child and family.

Many argue that if young children who are deaf received early ASL programming combined with early programming that focused on the child's development on English, such children would develop early bilingual skills which would enable them to communicate comfortably with both deaf and hearing persons (Donlick, 1993; Garretson, 1994; Hatfield & Humes, 1994; Moores, 1992; Ritter-Brinton & Stewart, 1992; Seal, 1991; Walworth, 1992). Others maintain that hearing parents of young deaf children could benefit greatly from early contact with deaf adults who would help the parents understand and appreciate deaf persons and Deaf culture and accept deafness on its own terms. This would enable the parents to *really* appreciate their child who is deaf, and not only allow but encourage their child to be a *person who is deaf* (Barry,1995; Bragg & Tranchin, 1994; Brown & Gustafson, 1995; Busch & Halpin, 1994; Carty, 1994; Ladd, 1994; Okwara, 1994). Thomas (1994) has said, "Deafness is a difference, not a deficit. Once parents understand this, they can make the imaginative leap of understanding that will make it possible for them to let their child be deaf" (p. 553).

There is growing interest in the use of bilingual-bicultural (bi-bi) programming with children who are deaf. Although no consensus exists on what type of bi-bi programming should be established, several models have been described for school-aged children (Johnson, Liddell, & Erting, 1989; Paul & Quigley, 1994; Strong, 1988). Many proponents of bi-bi programming believe that relevant relationships exist between ASL and English and that the early development of ASL as a first language will support the later learning of English as a second language (Johnson et al., 1989; Strong & Prinz, 1997). Some researches question the correlation between the child's ability to understand and use ASL and the subsequent learning of English, especially written English (Mayer & Wells, 1996; Paul, 1996). Paul maintains that it is debatable whether one can achieve high-level literacy skills in English without learning and using the conversational form of English.

Studies of the *early* use of ASL and the subsequent development of English focus primarily on comparisons between deaf children with hearing parents and deaf children with deaf parents. A consistent finding is that deaf children of deaf parents perform significantly better on measures of academic achievement, vocabulary, speechreading, signing and fingerspelling, and written language and reading than deaf children of hearing parents (Balow & Brill, 1975; Brasel & Quigley, 1977; Meadow, 1968; Quigley & Frisina, 1961; Stuckless & Birch, 1966). Differences are attributed primarily to parental acceptance of deafness and of the child who is deaf, and early and consistent use of ASL (Paul & Quigley, 1994).

Only a few studies, primarily case studies, have been done of deaf children who are exposed to both ASL and English in infancy and early childhood (Collins-Ahlgren, 1974; Philip, 1992; Schlesinger & Meadow, 1972). These studies are characterized by the deaf child's vocabulary and language development being equivalent to or greater than that of the child's hearing peers, and the emergence of standard English through various stages of sign use including invented signs, standard and inflected signs, and sign combinations.

The Deaf Mentor Experimental Project investigated the use of a model (i.e., the deaf mentor model) with young children who are deaf and their families. It was basic, exploratory research to obtain introductory data on the efficacy of that model, not research to investigate per se the relationship of the bi-bi programming to the language development of young children who are deaf, or the relationship between early ASL use and the early development of English literacy, although these issues were of great interest. Basic research focuses on fundamental structures and processes with the goal of better understanding of these structures and processes. Exploratory research is guided by research questions and objectives rather than specific hypotheses. This kind of introductory research serves an important purpose in obtaining preliminary information about new programs and processes (Borg & Gall, 1989).

To obtain data on the efficacy of deaf mentor programming for young children who are deaf and their families, two groups were studied. Children in one group received deaf mentor programming in the form of regular home visits from a deaf mentor. These children were in the Utah Parent-Infant Program under the auspices of the Utah School for the Deaf. The mentor focused primarily on three areas during the home visit: (a) teaching the family ASL, (b) interacting with the child using ASL, and (c) teaching the family about Deaf culture and introducing the family to the local Deaf community. The deaf mentor was also a role model for the child and helped the child develop a positive identity, self-esteem, and pride in being a person who is deaf. Family members learned the difference between signed English and ASL and used both in ways that were appropriate for the child and family.

In addition to the deaf mentor visits, the children and their parents received regular home visits from a trained parent adviser who helped the parents learn about and manage the child's hearing aids, promote the child's early listening skills, establish early communication with the child, and learn and use signed English with the child. With valuable communication input, information, and guidance from both the deaf mentor and the parent adviser, a bi-bi atmosphere was established in the home.

The members of the second group were children in the Tennessee Infant Parent Services (TIPS) program who received SKI-HI parent adviser home visits only. The parent advisers used English (spoken and signed) with these children.

Children in the Utah Deaf Mentor Program were matched to children in the Tennessee program. The children were matched on hearing loss, age at the start of the project, amount of SKI-HI programming prior to the Deaf Mentor Project, and pretest developmental rates as measured by the SKI-HI Language Development Scale (see Table 1). There were 18 children in each of the experimental and control groups. Half of the 18 children in Tennessee used an aural-oral approach (spoken English) and the other half used a signed English approach. The children in the Utah experimental group received an average of 17.6 months of deaf mentor treatment. The average amount of mentor home visiting time per month was 6.5 hours and the average number of mentor visits per month was four. Parent advisers in both Utah and Tennessee made weekly home visits, each visit lasting about 1 hour.

Table 1   Matching Factors for Experimental and Control Groups

	Utah group (SKI-HI & deaf mentor)	Tennessee group (SKI-HI only)
Average hearing loss	97.4dB (85-120)	84.9 dB (70-120)
Average age at project start (months)	27.2	28.6
Average amount of SKI-HI programming prior to Deaf Mentor Project (months)	14	12
Average pretest development rates (PDRs)	0.75	0.75

Parent advisers in both Utah and Tennessee were trained by national SKI-HI trainers who had received intensive training to prepare parent advisers for direct services to families and who were experienced users of the SKI-HI Model. The parent advisers in both states who used signed English with families used the SKI-HI Total Communication (manually coded English) Program (see Watkins & Clark, 1993). Thus, their signs and approaches were similar. The parent advisers in Tennessee who used spoken English with families used the SKI-HI Aural-Oral Language Program (see Watkins & Clark, 1993).

Mentors in the Utah program were widely recruited throughout the state and carefully screened and interviewed by a team that included leaders in the Utah Deaf community, Deaf Mentor Project staff, and hearing parents. Applications were rated on ASL fluency, involvement in Deaf culture and the Deaf community, educational background, job experience, general communication skills with hearing persons, and experience working with young children.

Methods Research was guided by several basic questions, including the following:

1. Do children who receive early bi-bi home intervention (ASL/Deaf culture and English/hearing culture) perform better on measures of communication and language than matched children who get SKI-HI programming only?

2. How does communication between children and family members who receive deaf mentor treatment differ from the communication between children and families who do not receive deaf mentor treatment?

3. How do perceptions and attitudes concerning deafness and the child who is deaf differ between parents who receive deaf mentor treatment and those who do not?

Methods used to answer these questions included the selection of measures and the testing of children in the project. The following measures were selected:

1. *Grammatical Analysis of Elicited Language: Pre-Sentence Level* (GAEL-P; Moog, Kozak, & Geers, 1983). This test measures early language comprehension and production in the areas of readiness, single words, and word combinations.

2. *Patterned Elicitation Syntax Test* (PEST: Young & Perachio, 1993). This test assesses the child's ability to use 44 basic grammatical structures of English.

3. *SKI-HI Language Development Scale* (LDS; Watkins & Tonelson, 1979). This scale was developed specifically for deaf children from birth to age 6 years; it measures general receptive and expressive language.

4. *Communication Data Sheet.* This measure was developed specifically for the Deaf Mentor Experimental Project. It is a parent report that focuses on family communication with the young child who is deaf.

5. *The Deafness Perception Survey.* This measure was also developed specifically for the project with assistance from deaf persons in Utah who were active in the local and national Deaf community and who identified with Deaf culture. The survey addressed parent attitudes toward deafness, Deaf culture, and the child who is deaf.

Four diagnosticians regularly tested the children in Utah and Tennessee. The diagnosticians were carefully trained to administer and score the tests. Children were tested every 6 months. Diagnosticians administered the GAEL-P and the PEST to the children. One deaf and one hearing diagnostician tested the children in Utah and two hearing diagnosticians tested children in Tennessee. Interrater agreement among the diagnosticians was determined to be 81% for the GAEL-P and 91% for the PEST.

Parent advisers in Utah and Tennessee tested the children on the LDS. Administration of this test was a routine part of the parent adviser's delivery of SKI-HI parent-infant program services to families in Utah and Tennessee. All parent advisers received careful training in the administration and scoring of the LDS. The parent advisers also obtained information from parents in both the control and experimental groups on the Communication Data Sheet and the Deafness Perception Survey. Parents completed the Communication Data Sheet at the beginning and end of the project and the Deafness Perception Survey at the end of the project.

In addition to undergoing testing, all children in the Utah Deaf Mentor Program were videotaped every 3 months. One purpose of the videotaping was for parents to interact with the child in the way most comfortable for them. These videotaped interactions were transcribed, coded, and scored.

Results *The SKI-HI Language Development Scale (LDS)* Results from administration of the LDS showed that children in the Utah Deaf Mentor Program made greater gains in both receptive and expressive language during treatment time than the matched children in Tennessee. (Differences were statistically significant at the .05 level). For the children in the Utah deaf Mentor Program, language growth in months was greater than treatment time in months. During treatment, average language gains for Utah children were 6 months greater than those for the matched children in Tennessee.

Using the children's LDS scores, Intervention Efficiency Indexes (IEIs; Bagnato & Neisworth, 1980), Proportional Change Indexes (PCIs; Wolery, 1983), and predicted-versus-actual posttest scores were calculated and compared for the children in the two groups. The IEI gives an indication of the child's rate of language development during intervention. The PCI is a ratio of the child's average language development during intervention and the child's average language development before intervention. Predicted-versus-actual posttest scores provide information on the child's language progress during intervention compared to the progress the child would have made as a result of maturation alone.

The data indicate that the Utah children, who received deaf mentor treatment, performed better than the Tennessee children in the following ways: (a) Rates of language growth for the Utah children (IEIs) were higher during treatment time than the language growth rates of the Tennessee children; (b) the PCIs of the Utah children were higher than the PCIs of the Tennessee children from pretest to posttest; (c) actual-versus-predicted posttest scores were better for the Utah children than for the Tennessee children. For the Utah children, the actual mean posttest language score exceeded the predicted mean score by 4.2 months for receptive language and 6.0 months for expressive language. For the Tennessee children, the actual mean posttest score exceeded the predicted mean score by only 1.1 months for expressive language. For receptive language, the Tennessee children's actual mean posttest score was *less* than the predicted mean posttest score by 0.2 months.

Grammatical Analysis of Elicited Language: Pre-Sentence Level (GAEL-P) Data derived from administration of the GAEL-P indicate that the mean gain scores and mean final scores of the children in the Utah Deaf Mentor Program were higher on all four subtests of the GAEL-P than the mean gain scores and mean final scores of the Tennessee children. (The GAEL-P subtests are *Single Word Comprehension, Single Word Production, Word Combination Comprehension,* and *Word Combination Production.)* Except for the Word Combination Production subtest, the two groups' scores were fairly close. However, this likely can be attributed to a ceiling effect. Eight of the Utah children reached the ceiling on the GAEL-P prior to posttest. None of the Tennessee children reached the ceiling prior to posttest.

Patterned Elicited Syntax Test (PEST) All but one of the children in both groups were unable to respond correctly to any item on the PEST at pretest time. At posttest, the Utah children scored higher on this test of English grammar than the Tennessee children. This is interesting in light of the fact that the Utah children received ASL and (signed) English input, while the Tennessee children received (spoken or signed) English input only.

One of the most interesting findings of the present study resulted from the administration of an ASL equivalency test of the PEST to the Utah children at posttest time. The children in the Utah program scored more than 2.5 times higher on this ASL-administered posttest than they did on the signed English-administered posttest.

Communication Data Sheet At the beginning of the present study, parents in Utah and Tennessee reported similar communication abilities for their children on the Communication Data Sheet. For example, when asked, "What stage best represents your child's highest level of language development?," Utah parents rated their children at an average 7.3 level and Tennessee parents rated their children at an average 7.1 level. (The child at the 7.0 level understands single words/signs.) Average vocabulary for the Utah children at the beginning of the study was reported to range between 31 and 50 words. Average vocabulary for the Tennessee children was reported to range between 21 and 30 words.

At the end of the present study, differences between the two groups related to child and family communication became apparent. According to parent reports, children in the Utah Deaf Mentor Program communicated at a higher average language level and had larger vocabularies than the Tennessee children. Parents of the children in Utah reported that they understood what the child was communicating to them a greater percentage of the time than what was reported by the parents in Tennessee. The Utah parents also reported that their children understood them a greater percentage of the time than did the Tennessee parents in regard to their children.

Parents in the Utah Deaf Mentor Program reported less frustration when communicating with their child than the Tennessee parents. Of particular interest was the reported number of signs used by parents in Tennessee, who used signed English with their children, and the number of signs used by parents in Utah who used both ASL and signed English (bilingualism). Parents in Utah reported using *more than six times as many signs* as the Tennessee parents.

Videotape Probes Analysis of the videotape probes that were obtained every 3 months revealed that as the project progressed, parents in the Utah Deaf Mentor Program became more comfortable using both ASL and signed English "complete" (i.e., all that was said in English was signed). Parents used more ASL and signed English "complete" at posttest time than at pretest time. The length of their ASL and signed English expression increased, as well as the

percentage of the spoken English that they signed. The children responded much more frequently to their parents' expressions at the end of the project than at the beginning. At posttest time, children responded most frequently to their parents' use of ASL and signed English "complete." They responded next-most-frequently to signed English "incomplete."

Deafness Perception Survey   Based on the information the parents provided on the Deafness Perception Survey, it was evident that there were some differences in how the parents in Utah and Tennessee perceived deafness and deaf persons, ASL, and their deaf children. Overall, Utah parents' perceptions were more consistent with the values of the Deaf culture and Deaf community than those of the Tennessee parents. The Utah parents' perception may be understandable in light of the fact that these parents had regular contact with Deaf adults (mentors) in the Utah Deaf Mentor Project, and that 100% of them participated in Deaf community activities, compared to 15% of the Tennessee parents.

The Deafness Perception Survey responses also showed that to the Utah parents it was most important that the family learn sign language, that their child learn to read and write, that their child have teachers who could sign well, and that their child have deaf friends. To Tennessee parents, it was most important that their child learn to read, write and speak; attend public school; and learn to communicate without depending on sign language.

Utah parents wanted their deaf children to be self-confident, happy, loved, and proud of who they were and what they wanted for themselves. Tennessee parents wanted their deaf children to contribute to the world, attend college, get a good education, and have a successful career.

Discussion and Conclusions   The present study was a basic, introductory investigation of the use of a deaf mentor program model with young children who are deaf. Deaf adults (mentors) made regular home visits to young deaf children and their families in the Utah Parent-Infant Program. The mentors taught each family ASL, interacted with the child who was deaf using ASL, shared Deaf culture and their firsthand knowledge of deafness with the family, and introduced the family to the local Deaf community. Families that received regular home visits from a deaf mentor also received regular visits from a hearing parent adviser who helped these families learn and use signed English. This created a bi-bi home environment. Average treatment time was 17.6 months. The Utah children who received early bi-bi programming were matched to children in the Tennessee Infant Program Services who received parent adviser home visits only. Half of these children received a signed English approach and half received a spoken English approach. Children in both Utah and Tennessee were tested every 6 months. For children in the Utah Deaf Mentor Program, the number of months of both expressive and receptive language gain they achieved exceeded the total number of months they were in the program. The Utah children also scored higher at posttest on a measure of language development than what would be expected due to maturation alone. They made greater gains in both receptive and expressive language during treatment time than matched children in Tennessee, averaging more than 6 months more language growth than the Tennessee children.

Children in the Utah Deaf Mentor Program scored higher at posttest on a test of grammatical structures of English than children in Tennessee. When test items were signed to the Utah children in ASL, the Utah children scored more than 2.5 times higher on the measure than the children in Tennessee.

According to parent reports, deaf children in the Utah Deaf Mentor Program had vocabularies more than twice the size of the vocabularies of matched children in Tennessee, and parents in Utah knew and used more than six times as many signs as the parents in Tennessee, who were using signed English.

Parents in the Utah Deaf Mentor program became more comfortable using both ASL and complete signed English as the project progressed. The Utah parents reported different attitudes toward deafness, ASL, and Deaf culture than the Tennessee parents. The Utah parents' attitudes and perceptions were consistent with a knowledge of Deaf culture and prevailing attitudes in the Deaf community.

The results point to the feasibility of considering deaf mentor programming as a program option for young deaf children and their families. Certainly these results represent just one study, and certainly parent choice is paramount in deciding which early home intervention approaches might best be used.

Many questions remain unanswered, and further research needs to be done related to the specific mechanisms that contributed to the results of the present study. For example, it is not known if and to what degree increases in sign use by Utah parents contributed directly to the children's performance on the English-based tests. Some other limitations of the present study include small sample sizes, an absence of reliability and validity measures on the instruments developed specifically for the study, the lack of videotaping in Tennessee (project constraints made this unfeasible), and the limited number of measures used.

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