

Chapter • 8

F.A.M.I.L.Y. Assessment

A Multidisciplinary Evaluation Tool

Arlene Stredler-Brown and
Christine Yoshinaga-Itano

HISTORICAL BACKGROUND AND INTERVENTION PROGRAM

There are many approaches to consider when working with hard-of-hearing and deaf infants. Dunst (1988) has clearly defined the characteristics of child-centered, family-centered and family-focused therapy. Each approach has reasonable justification. Frequently, a combination of therapeutic approaches works best to meet the needs of a hearing-impaired child and the family. In Colorado, family-focused intervention is offered through the Colorado Home Intervention Program (CHIP) under the auspices of the Colorado Department of Health.

Family-centered Intervention

The philosophy of the Home Intervention Program is that parents are the best facilitators for a child. Through their active participation in the early process, they become empowered and consequently develop an optimal interactive match (Bailey and Simeonsson 1988) with their child. We believe this approach is critical in meeting the needs of children with special challenges.

Population Served

The Home Intervention Program operates statewide, serving 80 to 120 families of infants and toddlers who are deaf or hard of hearing. The program was initially established to serve families of low socioeconomic status. Because of increased requests from middle and upper income level families, the program is now available to those families as well, although they do not receive financial assistance. In 1991, 33% of the families had no income, 33% had some income but were still at poverty levels, and 33% had middle or higher income levels. With the advent of Public Law 99-457, coordination of services through interagency collaboration, specifically the State Department of Education, the State Department of Health, and the Outreach Program of the Colorado School for the Deaf and Blind has begun.

Due in part to Colorado's historically aggressive approach to early identification of hearing loss (Northern and Downs 1984): (1) 39% of our children are identified before 12 months of age; (2) 43% are identified between 13 and 24 months; and (3) an additional 15% are identified by their third birthday (Yoshinaga-Itano 1987). Forty-one percent of the population has been identified as multiply handicapped; 8% of the children have mild hearing losses, 35% have moderate losses, 22% have severe losses, and 34% have profound hearing losses.

Parent Facilitators

There are approximately eighty-five parent facilitators providing services to families with infants with hearing loss. The facilitators are from a variety of professional backgrounds

including speech/language pathology (approximately 25%), audiology (approximately 30%), deaf education (approximately 40%), and early childhood special education (approximately 5%). In most cases, graduate training of these professionals is in some aspect of child-centered care. Parent facilitators participate in a three-day workshop when they enter the program. They also travel to Denver for semi-annual, two-day workshops to update skills, to present case studies, to provide mutual support, and to participate in group problem-solving of difficult cases. The administrative staff includes a consulting family psychologist who provides in-service training in topics such as: (1) the grieving process (Moses 1983); (2) family systems (Minuchin 1979); (3) "joining" the family (Haley 1976); (4) instructional techniques (Hersey and Blanchard 1977); and (5) resources available within the program and the community to further support the family (see figure 1). Because of the significant growth of the program, the state has been divided into nine regions. Regional supervisors, who are parent facilitators with extensive experience in the program, coordinate training and services for parent facilitators and families within their geographic regions. Parent facilitators have regular telephone contact and meetings with their regional supervisors.

The same principles espoused in the CHIP philosophy of family centered intervention, are applied to the development of parent facilitators and overall program development. Parent facilitators must feel equal with program supervisors so that they have a sense of ownership in the program and its development. Program supervisors believe that the best way to instill this is to "practice what you preach" at all levels of the program. Thus, the program described here is the cumulative product of our 85 parent facilitators who have collaborated over a period of several years.

The facilitators' role is a complex one. Because weekly intervention occurs in a family's home, facilitators often find themselves in an intimate and trusting relationship with family members. Many questions about normal child development and the effects of the hearing loss on the child are discussed.

A facilitator may serve as a case manager, providing assistance to a family in obtaining appropriate services and facilitating interagency and interprofessional collaboration. These services may include additional diagnostic information or additional intervention services such as child-centered speech and language therapy, occupational therapy, physical therapy, or mental health services. Most important is identification of the parents as major participants in the team process. In most cases, parents participating in CHIP have chosen the parent facilitator initially as the case manager. Many parents share the role of case manager prior to the end of their program with CHIP.

A parent facilitator may assume a counseling role with specific goals related to establishing parent-professional partnerships; empowering parents to make decisions, setting goals and obtaining direct services for their family and child; and assisting families through the grieving process.

A parent facilitator may also serve in a transdisciplinary role (Hart 1977; Lyon and Lyon 1980; Golightly 1987). A transdisciplinary model of intervention is an integral part of the CHIP process. Parent facilitators are primary service providers but they receive consultation from individuals who specialize in psychology, audiology, speech language pathology, education of the deaf, occupational therapy, and physical therapy, requiring considerable interagency and interprofessional collaboration. A parent facilitator may provide counsel to a family after consulting with a clinical psychologist, or may provide information about occupational or physical therapy techniques with the help of an occupational or physical therapist.

A parent facilitator may serve an instructional role, providing families with specific content information. Another important task of a facilitator is to assist parents in the acquisition of skills needed to integrate therapeutic techniques into a child's daily routine. The techniques chosen for instruction meet the needs of a particular child and are in direct response to the concerns of those parents. The content may include the development of auditory skills, speech skills,

communication abilities, play skills, and behavior management. During each home visit, one or two techniques are emphasized.

The Content/Strategies Component

When enrolled, each family is introduced to a Home Intervention Program Facilitator, who makes weekly visits to the family's home. Programming starts at the time of identification, often before acoustic amplification has been fitted. This is justified because family members often need information and support at the time of identification when their expectations for a "normal" child have been shaken (Moses 1985).

During a home visit, specific techniques are conveyed to the parents through a carefully designed five-step program. First, the specific technique is discussed so parents can understand the theoretical underpinnings of the technique and its relevance to the child's habilitation needs. Second, the facilitator demonstrates the technique while interacting with a child. The third step is very important: evaluating the effectiveness of the technique in context of a child's behavior. This step is accomplished through a parent-facilitator partnership. It is important to take notice of a child's behavior and any effect the technique has had. Parental input is essential because of extensive experience with their child. Their perspectives should blend with the facilitator's account of the child's behavior during implementation of the targeted therapeutic strategy. The fourth and fifth steps shift the focus to the parents as they are asked to implement the technique. Then, they join the facilitator in evaluating the effects of intervention. They also have the opportunity, at this time, to discuss how comfortable they feel implementing the technique. It is at this point that the program fulfills its family-centered premise.

Decision-making Process

How are these techniques chosen? Who decides the order of presentation? When only two skills are emphasized during a session, how can the needs of child and parents be prioritized? And, what method of intervention will be used? All these questions are posed to each facilitator, to the family, and to other members of the intervention team.

Goal Setting

The ultimate objective is for parents to choose their own goals and objectives. A parent facilitator's role is to provide a menu of topics that are important to the development of the child and family. A parent facilitator also provides a nonjudgmental presentation of methodology and programming issues as well as information available on the topic. This does not, however, prevent a parent facilitator from offering his or her own professional opinions and viewpoints when asked by parents to provide this information. If a parent facilitator has successfully "joined the family" (Haley 1976), both parents and facilitators should feel comfortable, whether or not they agree on a specific course of action. The goal of a parent facilitator is to be able to express a differing opinion without having parents feel that they are being judged. A parent facilitator continues to reiterate that ultimate decision-making lies with the parents.

Response to Program Needs

The "FAMILY Assessment" was designed to respond to specific needs of CHIP. In order to justify and obtain continued funding, the program needed to demonstrate that progress was being made. The needs of the program dictated that the assessment process be time efficient and cost effective. Families were seen in their homes for 90 minutes each week and most families were too far from centers to participate in traditional multidisciplinary assessments. Even if families could participate, the allocation for programming was not sufficient to pay for hours of diagnostic services by numerous professionals. There was agreement that a standard assessment protocol should be used with all families and children in the program. It was felt that the assessment should be designed to provide information regarding changes in parents' knowledge base, changes

in the communicative interaction between parent and child, and changes in the child's development. The information obtained from the assessment needed to provide guidelines for specific intervention. Additionally, the parent facilitator wanted (1) to monitor the family and child's development over time, (2) to compare this information with families and children who did not have the challenge of hearing impairment, and (3) to compare the characteristics of the child/family to others with similar ages, hearing impairments, additional handicapping conditions, ethnicity, etiology, or communication methods.

ASSESSMENT PROCESS

FAMILY Assessment has been used successfully for the past eight years by the Home Intervention Program. First, FAMILY Assessment can identify present levels at which a child is functioning, as well as the strengths, needs, and concerns of family members as they relate to the child. Results quantify the present skill-level of a child in areas of communication, language, audition, speech, cognition, play, social emotional, gross and fine motor, and general development. Second, characteristics of parent-child interactions are quantified. The third component elicits from parents their concerns, questions, and needs as they relate to their child. FAMILY Assessment offers parents an array of choices for the focus of intervention.

Using the FAMILY Assessment

FAMILY Assessment is a naturalistic assessment, incorporating videotape analysis and inventories completed by the parents. Information is obtained from videotapes of parents playing with their child, parent reports, and parent interviews. An hour to two hours of the parents' time is required to fill out the developmental inventories. In addition, the videotaped interaction takes a half hour. Home visits are scheduled at times when participation is most convenient for both mother and father. The first videotape is made after the parents become familiar with their facilitator and are comfortable with the program and then at six-month intervals. The first videotape session usually occurs within three to six months after enrollment in the program. Before the first videotape is made, an emphasis is placed upon establishing trust, answering questions about technical information, and providing contact with other agencies that are, or will be, involved in providing services to the child and family.

When families feel comfortable with the evaluation procedure, the facilitator arranges a time to videotape the parent/child interactions. Using specific guidelines, the facilitator operates a video camera and obtains a 3-minute interaction sample. The parent then decides whether the taped interaction represented a normal interaction. If not, another taping session is arranged. The videotape is then sent to the University of Colorado Department of Communication Disorders and Speech Science for analysis. Graduate students in speech/language pathology and audiology, who have undergone fifteen weeks of instruction, as well as coordinated instruction throughout their graduate curriculum, learn to code the video samples in four areas: phonology, language, communication, and parent-child interaction. Coding reliability is established during the 15-week training period.

While the videotape is being coded at the University, a set of questionnaires and developmental inventories is sent to the facilitator. These are taken to the child's home and together the parents and facilitator decide which questionnaires/protocols they want to complete. Areas that can be evaluated include: play; auditory skills; gross and fine motor skills; and environmental and family needs (**see figure 2**).

Thirteen different questionnaires/protocols are offered and the facilitator and parents select which protocols they want to complete at that time. Family involvement in this process is essential. It is important that parents feel they are working collaboratively with professionals in assessing their child's skills. Parents frequently see skills that a facilitator and other therapists do not observe in their relatively brief encounters with a child. In addition to the belief that parents

are the best facilitators of their child's development, the assessment is based on the assumption that parents are also the best informants regarding their child's abilities. Therefore, the assessment does not include any professional/ child elicitation tasks. Upon completion of these questionnaires and protocols, the parent facilitator sends the information to the university for analysis.

The protocols used in our assessment procedure can be divided into three categories: (1) protocols designed to evaluate a child's language, communication, play, cognition, and motor skills, (2) protocols designed to evaluate the parent-child interactive match; and (3) protocols intended to focus on parent needs. The assessment tools used to evaluate these three areas are listed in **table I**.

EVALUATING THE CHILD'S SKILLS

Communication and Language

All our assessment procedures and intervention techniques recognize that every area of language must be considered: pragmatics (child and parent communicative intent and parent-child interaction styles), semantics (receptive and expressive vocabulary and parts of speech), and syntax (grammatical forms, sentence structures, and mean length of utterance). Because communication and language are always affected by a hearing loss, programming must carefully analyze the onset of communication and the progress a child makes over time. Taking test results into consideration, as well as recommendations from ongoing team meetings, parents may decide to alter the communication method when adequate progress is not recorded.

Pragmatics. *The Communicative Intention Inventory* (Coggins and Carpenter 1981) is used to determine which pragmatic categories a child is using. It also looks at the quality of a child's utterances. Each communicative bid can be coded as gestural, vocal, spoken, or signed. The total number of communicative bids is tallied. This information is obtained when the 30-minute videotape is analyzed at the university.

There are several guidelines to consider when interpreting the results. First, there is a general trend in the normally hearing population to increase the number of pragmatic categories used as a child becomes older (Olswang et al. 1987). Also, an increase in the total number of communicative bids within the 30-minute sample is expected as the child gets older (Olswang et al. 1987). Third, there is typically a shift from nonverbal (gestural and/or vocal) utterances, which may occur as early as nine-months of age to predominantly verbal (spoken and/or signed) utterances (Carpenter, Mastergeorge, and Coggins 1983).

The facilitator shares the results with the parents and the intervention team. The child's existing communication patterns are explained and goals are established to promote more developmentally advanced patterns. The SKI*HI Home Visit Curriculum (Clark and Watkins 1985) is used as a guide in teaching appropriate communication strategies. The Hanen Curriculum (Girolametto, Greenberg, and Manolson 1986) also provides examples of activities that can be used to help promote a parent's understanding of communication intention. The Transactional Intervention Program by Mahoney and Powell (1986) is also available to parent facilitators.

Semantics. The MacArthur Communicative Development Inventory (1989) is completed by the parents. This inventory provides us with an estimate of the number of words a child understands, the number of words a child produces, and the types of words a child has in his or her lexicon. Parents look at a long list of approximately 400 vocabulary words and indicate which items their children have in their receptive or expressive repertoire. Because vocabulary development has been shown to be a strong predictor of later reading skills in both the normally hearing (Anderson and Freebody 1979, 1981) and the hearing-impaired populations (Davis et al.

1981, 1986; Osberger 1986; Ceers and Moog 1989), vocabulary development is considered crucial.

Syntax. When the child has at least 10 or more verbal utterances, a language sample analysis (Miller and Chapman 1985) is obtained. The analysis identifies the mean length of utterance (MLU), the parts of speech used, and the sentence structures observed in the sample. The assessment helps identify linguistic competencies. The parent facilitators then follow normal developmental progressions to assist parents in their use of techniques to stimulate their children's English language development. Strategies employed come from the SKI*HI Curriculum (Clark and Watkins 1985) and INREAL approaches to language development (Weiss 1981). Parents become skilled observers of their child's communication. They also learn appropriate strategies to reinforce the child's communication. Parents become highly skilled at creating opportunities for communication.

Phonology. The Phonologic Level Speech Evaluation is used to measure speech development of a child (Ling 1976). Coders (graduate students) at the University of Colorado transcribe each vocalization made by a child during a 30-minute videotape. All vocalizations are noted including short syllables, reduplicated and nonreduplicated babbling, jargon, and words. From this information we obtain a total number of vocalizations, a mean Length of syllables per utterance, and a phonemic repertoire of all sounds produced.

To measure progress, we look for an increase in the total number of vocalizations made in the 30-minute period. Parent facilitators also look for an increase in the mean length of syllables per utterance as a child learns more sophisticated and lengthy patterns of babbling, jargon, and word strings. An increase in the diversity of phonemic repertoire is another indication of change.

Intervention techniques in speech and audition are elicited from phonologic information. Parents learn strategies for consistently reinforcing their child's vocalizations. They may need help in becoming better observers of vocal utterances of the child. They can learn to imitate the child's utterances as an effective method of reinforcement. Parents can learn how to set higher standards for the child by expecting him or her to vocalize and by providing more opportunities for vocalizations to occur.

Auditory Skills. An informal checklist of auditory skills is completed by the parents. It incorporates elements of the Developmental Approach to Successful Listening (DASL) (Stout and Windle 1991) as well as other measures (Clark and Watkins 1985; Northcott 1977, 1978; Alpiner and Amon 1974; Erber 1982; Office of the Los Angeles County Superintendent of Schools 1979). Items on the checklist follow a traditional hierarchy of auditory skill development starting at a reflexive level and moving through awareness, searching, localization, and discrimination. Hearing aid use is also monitored.

It is essential that development of auditory functions be monitored (Pollack 1985; Ling 1976) because the level of auditory skill development directly affects speech, language, cognitive, and social-emotional development. There is also justification to make changes in acoustic amplification if progress in auditory skill development and speech development are not seen.

Teaching parents about hearing aid management and auditory training is rewarding but challenging. This is an area that requires practice and use of specialized techniques. Therefore, parents need to be carefully instructed in the rationale for auditory training. Each discrete skill is modeled until the child reaches an 80% success rate. The effect of visual distractions and visual cues is explained and monitored, and parents learn how to incorporate active listening into their daily routines.

Critical to the success of any program of auditory skill development is the consistent use and management of a child's personal amplification. For parents, hearing aids are a concrete reminder of a child's hearing impairment, and counseling may be needed to facilitate their acceptance.

Cognition and Language

It is important to obtain a measure of developmental achievement that is not affected by a child's hearing loss. To accomplish this, a questionnaire is used to measure a child's symbolic play behaviors. The underlying assumption for use of this questionnaire is that symbolic play is a nonverbal representation of prelinguistic and linguistic development (Bates and Snyder 1987; Bates, Bretherton, and Snyder 1988; Casby 1980; McCune-Nicolich and Carroll 1981; McCune-Nicolich 1981; Casby and McCormack 1985; Darbyshire 1977; McCune-Nicolich and Brusken 1982). We are assuming that the way children interact with toys and people in their environment is an indication of their developmental achievement. Two different questionnaires are used. The Play Assessment Questionnaire adaptation (Calhoun 1987) of the Play Assessment Scale (Fewell 1984) is a 45-item questionnaire to be completed by a parent with the help of a parent facilitator. Each question is answered "yes," "no," or "yes, in imitation." The raw score is then converted to a "symbolic play age." For children older than 30 months, the Symbolic Play Scale Checklist (Westby 1981, 1988) is used. Here, too, parents and a CHIP facilitator work together to complete the checklist. Answers are based on observations of a child's play. These play skills do not need to be observed directly during a testing session.

Based on play behaviors identified in the checklist, the facilitator designs a program to expand a child's repertoire of play skills. Parents are taught to become reliable observers of their child's play and learn to join in, both play scales have the skills listed in hierarchical order, which offers the parents a convenient guide to follow as they demonstrate more sophisticated play routines. Parents often need encouragement and assistance from the facilitator in choosing appropriate and stimulating materials to elicit play. Most parents benefit from information that shows the relationship between play and language development.

Mahoney and Powell's *Transactional Intervention Program* (1986) provides guidelines about a child's inherent ability to accommodate. It is important to appreciate the level at which a child is functioning and to ascertain how sophisticated the adult's model can be. We want to encourage development of more advanced play skills while appreciating that each child can only strive a certain distance beyond his or her present skill level. Some children have limited ability to accommodate to an adult model. Others can observe and successfully imitate a significantly more difficult play skill. A facilitator, in collaboration with parents, develops an individualized plan for the advancement of play routines.

Overall Development

The FAMILY Assessment offers a standardized measure of child development in a checklist format that can be used to obtain age equivalents in the areas of fine motor, gross motor, personal-social, self-help receptive language, and expressive language. The *Minnesota Child Development Inventory* (Iretton and Thwing 1972) is completed by parents with the help of a parent facilitator. The primary advantages of this questionnaire are to obtain a standardized profile of a child's skills and to have a profile of skills in six developmental areas. There are also disadvantages in using a developmental profile that compares a hearing-impaired child's skills to his or her normally developing peers. Parents may focus more on a child's deficit areas than on his or her competences, particularly in those cases where overall development is very slow possibly due to multiple handicapping conditions. This can be discouraging to parents and may impede progress. Therefore, discretionary use of this checklist is suggested. A facilitator, the parents, and an intervention team decide when this developmental information is needed. In contrast, items on the videotape analysis allow parents to focus on quantitative gains without focusing on developmental comparison with normally developing infants and toddlers.

Motor Developmental Screening. Many children with hearing impairments are at risk for gross and fine motor delays. The incidence of sensory integration dysfunction also increases

when there is a sensorineural hearing loss (Barrett 1979; Finocchiaro 1982; Jirgal 1982; Pennella 1979; Poizner, Battison, and Lane 1979; Ingalls et al. 1979). Therefore, it is important to screen for dysfunction in these areas. Parents are asked to complete two developmental progressions (Lames 1985). These questionnaires are designed to elicit information regarding gross and fine motor development. If delays appear to exist, a referral for a complete diagnostic evaluation is recommended.

Describing Parent-Child Interactions

Caregiver-Child Interaction Analysis. Cole and St. Claire-Stokes (1984) developed a system to evaluate the dynamic interaction between the parent and child objectively. This sophisticated procedure was adapted by Georgitis (1987) who uses a three-minute transcription of the videotape to obtain objective and quantifiable information about the communicative interchange. It is possible to examine the number of turn-taking episodes, topic maintenance, attention-getting techniques, gaze behavior, parents' pragmatics, and the modality of each partner's input (e.g., vocal, gestural, oral words, signed words).

In theory, an optimal interaction would be one in which the child takes at least half the turns (Kaye and Charney 1981). By dominating the interaction, the child acquires greater competence in communication. We suggest that parents respond to the child rather than dominate a conversation with questions and commands. The Home Intervention program uses many "reactive" techniques (Weiss 1981) such as expansion, self-talk, parallel-talk, imitation, and appropriate pause time. We monitor gaze behaviors because visual attention is essential for optimal learning to occur in the young child. We also look at the modality in which a child communicates, and make suggestions to parents as to how they can "match" their child's style. Successful attention-getting strategies used by both members of the dyad are quantified so parents can learn to identify the most effective techniques.

Pragmatic intentions of the parents are quantified. Effective techniques to develop speech and language in a young child are expansions of the child's preceding turn, imitation of the child's preceding turn, and repetition of the caregiver's own utterance (Weiss 1981; Clark and Watson 1985; Mahoney and Powell 1986; Manolson 1985). Imitation and expansion place the focus of the interaction on the child, offering reinforcement for his or her actions. When a parent self-repeats, it offers a child the redundancy needed to learn language, particularly when that child has a significant hearing loss. In general, the less a child can accommodate, the more important it is for a parent to use these optimal pragmatic intentions.

The mode of communication used by each partner to establish an optimal interactive match (Bailey and Simeonsson 1988) is also analyzed. The premise here is that a child's mode of communicating will influence the characteristics of the parent. The parent, in turn is encouraged to interpret the child's modality, and to imitate the child in order to reinforce his or her communication. The parent then learns to give the child a model that encourages more advanced communication. Each child is encouraged to extend his or her communication efforts according to his or her inherent ability to accommodate.

Another area of coded parent-child interaction involves attention-getting behaviors of both child and parent. There are two reasons to evaluate this area. First, it is important for parents to recognize how a child attempts to get an adults' attention. Often, a child's attention-getting behavior is not obvious. If a child tries to get an adult's attention by making a gesture and this attempt is not recognized, the behavior will often cease. Second, it helps parents to know just how they can successfully get their child's attention. Many parents habitually call a child's name to get his or her attention. This method is not always the most useful with hearing-impaired children. Therefore, we want to give parents strategies for getting their child's attention so that this convenient and effective method can be employed when needed.

Because our population is hearing-impaired, gaze behaviors are considered essential to effective communication. Gaze behaviors can be scored in two ways. Mutual gaze is when both

partners in the dyad are looking at one another. Joint attention is when both partners are looking at a common referent such as a toy. We have found that either type of gaze pattern is acceptable. Many infants are more likely to demonstrate mutual gaze because the parent's face is of great interest. Toddlers are often more interested in a toy and, therefore, exhibit joint attention more frequently.

Parent Syntax Characteristics. A parent narrative of at least 100 consecutive utterances is compiled. The narrative is evaluated for mean length of utterance, semantic, and syntactic structure, using the *Systematic Analysts of Language* software program (Miller and Chapman 1985). Parents are encouraged to communicate by using language patterns at or slightly above the child's language level. For example, if a child is at a holophrastic stage we encourage use of a 2 to 4 word level, depending on the child's ability to accommodate (Mahoney and Powell 1986).

If a total communication approach is being used, videotaped language samples of simultaneous spoken and signed utterances are obtained so parents can observe how their signed utterances compare to their oral utterances. Our research indicates that parents' oral language is generally much more elaborate than their signed production (Yoshinaga-Itano and Stredler Brown 1990) because parents frequently do not use a true speech-to-sign correspondence. Examination of videotaped samples helps parents evaluate their simultaneous communication skills and this often motivates them to seek more sign language instruction in classes or during home visits.

Parents are also provided with information about the grammar and syntax they are using in their everyday conversations. Mean length of utterance is also calculated. Our research indicates that many parents become accustomed to short simple sentences (Yoshinaga-Itano and Stredler Brown 1990) and that they frequently decrease their mean length of utterance, as well as the variety of sentence structures and parts of speech.

This analysis is not done for families whose primary language system is not English, (e.g., American Sign Language, Spanish, or Vietnamese).

IDENTIFYING PARENTAL NEEDS

When asking parents about their concerns and perceived needs, we are careful to respect their privacy. Some parents find questions of this sort to be intrusive. We always give them the option of answering questions about themselves or of foregoing these protocols entirely. The benefit of obtaining the information is to assist a family in identifying their strengths and needs. The questions relate to the family's perceived needs in light of their child with special needs.

Family Needs

Bailey and Simeonsson's *Family Needs Survey* (1985) is administered when the videotape is made. Parents identify areas in which they have adequate resources and specify areas for which they are requesting information or support. These areas may include child development, the effect of a challenging condition on development, support systems, financial assistance, childcare services, and community resources.

This protocol is especially helpful to the facilitator in planning intervention because the parents are clearly stating their needs. Many parents take responsibility for managing their own affairs without knowing that the intervention team can support them. Several families enrolled in the Home Intervention Program participated in a study to determine the usefulness of parent surveys (Moore, Conroy, and Yoshinaga-Itano 1991). Preliminary results suggest that surveys may provide important information to some families; however, some choose not to share this information with the early intervention team. The appropriateness of using family needs surveys must be determined on an individual basis.

Family Environment

A second questionnaire, the HOME Inventory for Measurement of the Environment (Caldwell and Bradley 1984), may be used to supplement information about a child's environment, a parents' involvement with a child and some aspects of behavior management. This questionnaire, which is administered through an interview, was chosen because of its practicality. If a family chooses to share this information, the results offer parents and the intervention team insight into areas that are working well and issues with which the family desires assistance.

In summary, families must be viewed as part of a collaborative team that is designed to meet their self-identified child and family needs. They make decisions about when an assessment is most helpful, what instruments they want to include, whether they want to share the information with parent facilitators, and when they want to take an active role in decision-making related to intervention techniques and goal setting.

CASE STUDY: MARK

The child in this study (Mark) was videotaped four times. The results of the selected evaluations are presented in each table. An interpretation of the information is provided followed by a discussion of the goals and objectives derived from the data.

Mark was diagnosed at birth with Treacher Collins Syndrome. He had multiple anomalies including a maximum conductive hearing loss secondary to bilateral microtia and atresia, and a cleft palate that was repaired at approximately ten months of age. At four months of age he was fitted with a bone conduction hearing aid, which he tolerated well. Mark was enrolled in the Home Intervention Program at five months of age. He was videotaped a total of four times at the ages of six months, 14 months, 20 months, and 27 months.

Communication and Language

Pragmatics. The Communication Intention Inventory (Coggins and Carpenter 1981) was administered starting at 14 months of age because children are not expected to demonstrate communicative intentions at six months of age when Mark was videotaped for the first time. Mark's first communicative behaviors were vocal and/or gestural (**see table II**). He used six different pragmatic intents including: comment on object, comment on action, request for object, request for information, answers, and acknowledgments. On the fourth videotape, he was using all eight pragmatic categories. The other trend was an increase in the total number of communicative bids. This increased from 47 communicative bids at 14 months of age to 76 bids at 27 months of age. An important change in the quality of Mark's communicative bids was monitored; he gradually included more verbal communication and reduced the number of non-verbal bids (**see table III**). This is a developmental pattern commonly observed in normally hearing children.

Semantics. The *MacArthur Communicative Development Inventory for Infants* (1989) was first used when Mark was 27 months of age. At this time, he demonstrated semantic skills at the 21-month level, as reported by his parents. This measure was adopted as part of the FAMILY Assessment in 1990 and is now being used longitudinally with all infants and toddlers.

Syntax. Because of the paucity of Mark's expressive language, a language sample analysis could not be obtained until the fourth videotape. At that time, 100 utterances were recorded. Mark used 12 parts of speech and four different sentence patterns. He had a mean length of 1.26 words and 1.32 morphemes per utterance, and he was using only the present tense (**see table IV**).

Phonology. Mark's phonologic development was slow until the fourth videotape (**see table V**). The number of vowels in his phonemic repertoire was limited to two sounds at six months of age and improved slowly during the next fourteen months. On the fourth videotape, he showed a significant improvement, using 18 different vowels during the 30-minute sample. A slow progression in his use of consonants was noted as well. On the first videotape, no consonants

were used. Only one consonant was used when he was 14 months of age on videotape number two. By the fourth videotape, Mark had made a significant improvement; 19 consonants were being used including six stops (Ling 1976).

Mark demonstrated minimal use of vocalizations. On the first videotape he only vocalized 25 times. Compared to our database (Yoshinaga-Itano 1990) of 92 hearing-impaired children on the Home Intervention Program, Mark falls well below the mean for the total number of utterances made in 30-minutes time. This pattern continues until the fourth videotape when a significant increase in the number of speech utterances is observed. At this time there are 114 utterances in the same 30 minutes.

Mark used only single syllable vocalizations at six months of age. By 27 months of age he was using a mean length of 2.4 syllables per utterance, supporting his use of 2 to 4 word phrases.

The CHIP facilitator was concerned about Mark's limited vocalization, the limited phonemic repertoire, and the short length of his utterances. Certainly, his cleft palate would be expected to have a direct impact on speech production. A speech-language pathologist at the local hospital's Cleft Palate Clinic was consulted. A program for oral motor stimulation was jointly prepared and implemented by a speech/language pathologist and the CHIP facilitator. In addition, added emphasis was placed on appropriate hearing aid use and the development of Mark's residual hearing. Mark received a screening of gross and fine motor skills to evaluate the possibility that low muscle tone was affecting respiratory support for speech production. As a result, the parents were instructed in techniques and strategies to enhance vocal play. Another result of this investigation was the discovery that Mark's bone conduction aid was not functioning optimally. It was repaired several times.

The CHIP facilitator and parents were very pleased with the changes in Mark's communication. Although the facilitator was concerned about the slow development of speech, the parents were satisfied and at no time did they want to consider a change in the oral/ aural approach they had adopted.

Play. Mark's play age always presented at or slightly above age level according to the Play Assessment Questionnaire (Calhoun 1987) (**see table VI**). We considered this an encouraging profile. As noted earlier, this questionnaire is completed by the parents with input from the facilitator, as suggested by Calhoun (1987) to ensure reliability. Mark was able to advance his performance in imitation of the adults' model.

Parent-Child Interactive Match

The analysis of Caregiver-Child Interactive Behaviors (Cole and St. Claire-Stokes 1984) was completed for a three-minute videotape sample.

Turn-Taking. On the tally of turns, Mark's mother started out clearly dominating the interaction by taking 65% of the turns on the first videotape. (An optimal interaction has the parent taking less than half of the turns, according to L(aye and Charney [1981.]) The number of turns the mother took reduced to 57%, 55%, and 56% respectively after intervention. This mother, therefore, was encouraged to let Mark take the leading role in their interaction, thus allowing him to dominate the interaction and receive the benefit of practice and involvement.

Gaze Behaviors. In Mark's first videotape, mutual gaze was established 66% of the time and joint attention was observed 24% of the time. This pattern changed over time (**see table VII**). On the third tape, mutual gaze was established 50% of the time and joint attention occurred 38% of the time. These patterns are optimal. They demonstrate effective gaze behaviors during more than 85% of the interactions.

Parent Syntax. Mother's use of syntax was also charted. Mark's mother used 28 and 25 parts of speech of the identified on the language sample analysis during the first two videotape sessions. She increased the use of forms to 34 out of 81 in videotape session three and in videotape session four. She did not necessarily use the same 34 forms in both sessions.

Mark's mother used 8 to 11 sentence structures. This: increase in the number of structures used reflects the longer mean length of utterance (MLU). Her MLU increased from 2.88 words per

utterance to 3.36, from the first to the fourth videotape. She also increased the use of her verb tenses from 3 out of 12 to 4 out of 12 by the fourth videotape session. The changes in the number of forms, structures, verb tenses, and mean length of utterance are appropriate considering Mark's language development. When he started to use verbal language on the fourth tape, the mother increased the complexity of her utterances in order to provide an appropriate model. (See table VIII.)

SUMMARY

The typical sequence of events of a habilitation program for infants, toddlers, and their families on the Home Intervention Program follows. Collaboration with family members begins shortly after the initial diagnosis. The facilitator meets with the family on a weekly basis, providing information and support. Together they make plans for therapeutic intervention. Curricular areas are designed to address the child, the family, and the interactional patterns between the child and the caregivers. The FAMILY Assessment is used as a method of securing baseline data, monitoring changes in performance, and providing choices regarding method of intervention. Diagnostic information gathered from the FAMILY Assessment is conveyed by the facilitators to team members, including the family. The information is most frequently presented in a criterion-reference fashion.

Information from 150 infants and toddlers has been compiled into a database that can be used to compare a child and his or her interactions to those of other infants and toddlers with hearing loss. Many of the protocols used are standardized on the hearing population and can provide age equivalencies as well. Parents usually report a desire to see how the child has changed over time as opposed to developmental age equivalents.

A diagnostic teaching approach is used to provide parents with the information they need to make methodology decisions, and they learn to apply communication strategies basic to good communication, regardless of the method chosen. Because intervention begins as soon after diagnosis as possible, the most frequent requests for information center around the hearing test, amplification issues, and auditory training. When families use American Sign Language as their primary mode of communication and, in addition, do not consider hearing aid use or the development of audition, the parent facilitator responds to the wishes and directions of the family. These are usually deaf children whose parents are also deaf. For hearing parents, families' needs at the beginning of intervention often center around issues of grief and mourning. These issues must be addressed in conjunction with early intervention.

Methodology Decisions

As soon as the family expresses interest in acquiring information about instructional and communication methods, the parent facilitator begins to provide this information. This presupposes a basic understanding of the relationship between communication, language development, speech development, auditory development, cognitive development, and social-emotional development. Because most of our families have children whose hearing impairments are identified in the first year of life, the program operates under the principle that decisions related to methodology should be made at a time when family members feel comfortable that they understand the numerous variables that enter into this decision-making process. Acceptance of methodology decisions has, in our experience, been greatly facilitated when families do not feel pressured or rushed into a decision. It is also our philosophy that each method has pros and cons that differ according to each family and each child. We believe that it is important to encourage families to evaluate the appropriateness of any instructional decisions continually and to feel that they have the right and the option to change any decision when they feel it is in the best interests of the child or family.

Parents have also indicated that they want to have as much objective data as possible, so they can make informed decisions. Those parents who choose a simultaneous communication method often want to know not only about progress in semantics and syntax, but in auditory skill development and speech development. Those parents who choose an auditory-verbal method want to know not only about auditory and speech skills, but about language development with respect to semantics and syntax and how they compare to other normally hearing and hearing-impaired children of the same age.

Until recently, American Sign Language was not offered as an option to our families. This occurred for several reasons. First, none of the parent facilitators was fluent in American Sign Language. Second, choice of American Sign Language, by its nature, precludes the use of spoken English. In 1992, however, a group of deaf professionals and children of deaf adults with training in either education or counseling were prepared to serve as parent facilitators. These individuals provided all families with the option of pursuing American Sign Language as a primary method of communication and instruction. We have also expanded the number of parent facilitators fluent in Spanish and have learned a Spanish version of simultaneous communication to provide appropriate services to those families who communicate in Spanish.

The parent facilitator monitors progress in weekly session plans and reports, in staff meetings, and through the results obtained on the FAMILY Assessment. When limited progress is seen in an area, the concerns are taken to the team to explore alternative intervention strategies.

Approximately 50% of the children in the Colorado Home Intervention Program use a simultaneous communication approach by the time they "graduate" at three years of age. All changes in methods are made by the team in collaboration with the parents. The Home Intervention Program is eclectic in its approach to intervention and does not have a philosophical bias toward any particular method. The Home Intervention Program also supports the philosophy that unless a child with a hearing impairment has an additional cognitive disorder, he or she has the potential to function at age levels in the areas of language, communication, and social-emotional development. In addition, there is a strong philosophical belief that successful development of language and social-emotional skills can be obtained without sacrificing development in either area. Finally, program staff believes that the key to successful development in both of these areas is to provide family-centered habilitation services aimed at preventing a discrepancy between chronological age and language/social-emotional age. Our experience has taught us that it is much more difficult to close such a gap than it is to prevent one from occurring.

The publicly funded CHIP program has identified several components that make replication of the early intervention program possible. These components were identified during a replication study through the Colorado Department of Education using Part H funds. Through this two year study, an effort was made to replicate the project in three distinct geographic areas throughout the State with children with special needs who did not exhibit a hearing loss. There are eight critical components that need to be considered when replicating this family-centered intervention program.

1. A public agency, such as a state department of health, state department of education, or state school for the deaf and blind, must be willing to hire a coordinator to administer and develop the program.

2. The number of infants and toddlers with hearing impairments must be determined.

3. A funding allocation, per child, must be determined. At this time, the infant program in Colorado operates on half the average allocation of school-aged children with hearing impairments. Funding for the program comes from a combination of sources including: The Colorado State Department of Health Care Program, grant funds for services delivered to deaf/blind children, infant/toddler grant funds from the Colorado Department of Education, Medicaid payments, private insurance payments, Community Center Board funding for children with developmental disabilities, and occasional private payments by individual families.

4. Key individuals, preferably with experience and education in the area of hearing impairment, must be identified. An effort should be made to identify at least one key person in each geographic location so that any child with an identified hearing impairment can be seen by a professional residing in the community.

5. An ongoing inservice training program should be set up to educate the professionals to provide family-centered intervention to families having children with hearing impairments. Occasionally, intensive ongoing inservice training of professionals in related areas is required. In order to meet this challenge adequately, Colorado has recently divided the state into nine regions. A master parent facilitator has been identified as the primary provider of inservice training to all other parent facilitators in a specific region. This ensures that expert professional support is available to all families and parent facilitators throughout the state.

6. The identified specialists, together with the supervisor, must convey the philosophical beliefs of the program and program goals. Each family and each parent facilitator must feel vital to the development and growth of the program.

7. The intervention model must be consistent with the philosophical bases of the program.

8. An assessment must be developed that measures the goals of the program.

CHIP and the FAMILY Assessment project can be described as a system that is continuously evaluating goals, strategies, and outcomes. As a result of this self-evaluation, the program continues to be in a dynamic system of change. The delivery service model is now being evaluated and adapted to provide services to families with preschool-aged, children with hearing loss. The role of infant behavior and personality in the development of communication is being studied. Parents have posed specific questions about communication that we are attempting to answer. Do specific communication styles facilitate specific developmental areas? Is the optimal communication style for the enhancement of audition and speech different from the enhancement of conversational dialogue skills, vocabulary development, or the development of syntax and morphology? Should adult communication styles change according to the communication skills of the child? These challenging questions serve as an impetus to gain more knowledge in order to improve the quality of our intervention. We encourage other states to share the excitement and enthusiasm we have experienced in working collaboratively toward the goal of developing the best services possible for children with hearing loss and their families.

REFERENCES

- Anderson, R., and Freebody P. 1979. *Vocabulary Knowledge* (Tech. Rep. No. 136). Urbana, IL: University of Illinois, Center for the Study of Reading. (ERIC Document Reproduction Service No. ED 177480).
- Anderson, R., and Freebody, P. 1981. Vocabulary knowledge. In *Comprehension and Teaching: Research Reviews*, ed. I. Guthrie. Newark, DE: International Reading Assodation.
- Alpiner, J., and Amon, C. 1974. *Project Parent-Child*. University of Denver, Department of Speech Pathology and Audiology. Office of Education, Training Grant Report.
- Bailey, D., and Simeonsson, R. 1985. *Family Needs Survey* Frank Porter Graham Child Development Center. Chapel Hill, NC: University of North Carolina.
- Bailey, D., and Simeonsson, R. 1988. *Family Assessment in Early Intervention*. Columbus: Merrill.
- Barrett, S.S. 1979. Assessment of vision in the program for the deaf. *American Annals of the Deaf* 124:745-52.
- Bates, E., and Snyder, L. 1987. The Cognitive Hypothesis in language development. In *Research with Scales of Psychological Development in Infancy*, eds. I. Uzgiris and McV. Hunt. Champaign-Urbana: University of Illinois Press.

- Bates, E., Bretherton, I., and Snyder, L. 1988. *From First Words to Grammar*. New York: Cambridge University Press.
- Caldwell, B. M., and Bradley, R. H. 1984. *HOME Observation for Measurement of the Environment (Revised)*. Little Rock, AR: University of Arkansas.
- Calhoun, D. 1987. A comparison of two methods of evaluating play in toddlers. Unpublished Master's Thesis, Ft. Collins, CO: Colorado State University.
- Carpenter, R., Mastergeorge, A., and Coggins, T. 1983. The acquisition of communicative intention in infants eight to fifteen months of age. *Language and Speech* 26:101-16.
- Casby, M. W. 1980. Symbolic functioning of normal and developmentally delayed children. Ph.D. diss., University of Kansas, Lawrence, KS.
- Casby, M. W., and McCormack, S. M. 1985. Symbolic play and early communication development in hearing-impaired children. *Journal of Communication Disorders* 18:67-78.
- Coggins, T., and Carpenter, R. 1981. The communicative intention inventory. *Applied Psycholinguistics* 2:235-51.
- Cole, E., and St. Clair-Stokes, J. 1984. Caregiver-child interactive behaviors: A videotape analysis procedure. *The Volta Review* 86:200-16.
- Crnec, K. A., and Greenberg M. T. 1990. Minor parenting stresses with young children. *Child Development* 61(5): 1628-37.
- Darbyshire, O. 1977. Play patterns in young children with impaired hearing. *Volta Review* 79:19-26.
- Davis, J. M., Elfenbein, J., Schum, R., and Bentler, R. A. 1986. Effect of mild and moderate hearing impairments on language, educational and psychosocial behavior of children. *Journal of Speech and Hearing Disorders* 51(1):53-62.
- Davis, J. M., Shepard, N. T., Stelmachowicz, P. G., and Gorga, M. P. 1981. Characteristics of hearing-impaired children in the public schools: Part II. Psychoeducational data. *Journal of Speech and Hearing Disorders* 46:130-37.
- Dunst, C. 1988. Supporting and strengthening families: New visions, new directions. *Family Resource Coalition Report No.2*. Morgantown, NC: Center for Family Studies.
- Erber, N. 1982. Auditory Training. Washington, DC: A. G. Bell Association for the Deaf.
- Fewell, R. 1984. Play Assessment Scale. Seattle, WA: University of Washington.
- Finocchiaro, A. C. 1982. Sensory integration: Considerations for programming for deaf school children. *Sensory Integration Special Interest Section Newsletter* 5:2.
- Geers, A., and Moog, J. 1989. Factors predictive of the development of literacy in profoundly hearing-impaired adolescents. *The Volta Review* 91 (2):69-86.
- Georgitis, B. 1987. Reliability study of the adaptation of the Cole and St. Clair-Stokes caregiver interaction analysis for use with the Colorado Home Intervention Program. Denver, CO.
- Girolametto, L. E., Greenberg, J., and Manolson, H. A. 1986. Developing dialogue skills: The Hanen early language parent program. *Seminars in Speech and language* 7(4).
- Golightly, C. J. 1987. Transdisciplinary training: A step forward in special education teacher preparation. *Teacher Education and Special Education* 10:126-30.
- Haley, J. 1976. *Problem Solving Therapy*. New York: Harper Colomon Books.
- Hart, V. 1977. The use of many disciplines with the severely and profoundly handicapped. In *Educational Programming for the Severely and Profoundly Handicapped*, eds. E. Sontag, J. Smith and N. Certo. Reston, VA: The Council for Exceptional Children, Division on Mental Retardation.
- Hersey, P., and Blanchard, K. H. 1977. *Management of Organizational Behavior* (3rd Ed.) Englewood Cliffs, NJ: Prentice Hall.
- Ingalls, F.M., Holderbaum, M. A., Ritz, S., Hassanein, K.M., and Goetzinger, C. P. 1979. A study of otoneurologic and balance tests with deaf children. *American Annals of the Deaf* 124:753-59.

- James, J. 1988. Screening Inventories for fine motor and gross motor skills. Informal assessment developed for the Home Intervention Program. Denver, CO: Colorado Department of Health.
- Jirgal, D. 1982. Sensory integration and the hearing impaired child. *Sensory Integration Special Interest Section Newsletter* 5:2.
- Kaye, K., and Charney, R. 1981. Conversational asymmetry between mothers and children. *Journal of Child language* 8:35-49.
- Ling, D. 1976. *Speech and the Hearing-Impaired Child: Theory and Practice*. Washington, DC: A. G. Bell Association for the Deaf.
- Lyon, S., and Lyon, G. 1980. Team functioning and staff development: A role release approach to providing integrated educational services for severely handicapped students. *Journal of the Association for the Severely Handicapped* 5:250-63.
- The MacArthur Communicative Development Inventory: Infants*. 1989. San Diego, CA: Center for Research in Language, UCSD C-006.
- The MacArthur Communicative Development Inventory: Toddlers*. 1989. San Diego, CA: Center for Research in Language, UCSD C-006.
- Mahoney, C., and Powell, A. 1986. *Transactional Intervention Program*. Farmington, CT: University of Connecticut School of Medicine.
- Manolson, A. 1985. *It Takes Two to Talk-Hanen Early Language Parent Guidebook*. Toronto: Hanen Resource Centre.
- McCune-Nicolich, L. 1981. Toward symbolic functioning: Structure of early pretend games and potential parallels with language. *Child Development* 52:386-88.
- McCune-Nicolich, L., and Bruskin, C. 1982. Combinatorial competency in symbolic play and language. In *The Play of Children; Current Theory and Research*, eds. D. H. Pepler and K. Rubin. New York: Karger.
- McCune-Nicolich, L., and Carroll, S. 1987. Development of symbolic play: Implications for the language specialist. *Topics in Language Disorders* December: 1-15.
- Miller, J., and Chapman, R. 1985. *Systematic Analysis of Language Transcripts*. Madison, WI: University of Wisconsin.
- Minuchin, S. 1979. *Families and Family Therapy*. Cambridge, MA: Harvard Press.
- Moore, S., Conroy, E., and Yoshinaga-Itano, C. 1991. Parent needs surveys: Parent, professional and student attitudes. Paper presented at the Convention of the Colorado Speech/Language/Hearing Association, Breckenridge, CO.
- Moses, K. 1985. Infant deafness and parental grief: Psychosocial early intervention. In *Education of the Hearing Impaired Child*, eds. F. Powell, T. Finitz-Hieber, S. Friel-Patti, and D. Henderson. San Diego, CA: College-Hill Press.
- Moses, K. 1983. The impact of initial diagnosis: Mobilizing family resources. In *Parent-Professional Partnerships in Developmental Disability Services*, eds. J. A. Mulick and S. M. Pueschell. Cambridge, MA: Academic Guild Publishers.
- Northern, J. L., and Downs, M. P. 1984. *Hearing in Children*, 3rd Ed. Baltimore, MD: Williams and Wilkins.
- Northcott, W. 1977. *Curriculum Guide: Hearing Impaired Children and their Parents* (0-3 years), Washington, DC: A. G. Bell Association for the Deaf.
- Northcott, W. 1978. *I Heard That: A Developmental Sequence of Listening Activities for the Young Child*. Washington, DC: A. G. Bell Association for the Deaf.
- Office of the Los Angeles County Superintendent of Schools. 1979. *Auditory Skills Curriculum*. North Hollywood, CA: Foreworks.
- Osberger, M. J. (Ed.) 1986. *Language and Learning Skills of Hearing-impaired Students*. ASHA Monograph Number 23, Rockville, MD: American Speech-Language-Hearing Association.
- Pennella, I. 1979. Motor ability and the deaf: Research implications. *American Annals of the Deaf* 124:366-72.

- Poizner, H., Battison, R., and Lane, H. 1979. Cerebral asymmetry for American Sign Language: The effects of moving stimuli. *Brain and language* 7:351-62.
- Pollack, D. 1985. *Education Audiology for the Limited-Hearing Infant and Preschooler, 2nd Ed.* Springfield, IL: Charles C Thomas.
- Stout, G., and Windle, J. 1991. *Developmental Approach to Successful Listening.* Englewood, CO: Cochlear Corp.
- Westby, C. 1981. *Assessment of Cognitive and Language Abilities Through Play.* Albuquerque, NM: University of New Mexico.
- Westby, C. 1988. Children's play: Reflections of social competence. *Seminars in Speech and Language* 9(1):1-14.
- Weiss, R. S. 1981. INREAL intervention for language handicapped and bilingual children. *Journal of the Division for Early Childhood* 4:40-51.
- Yoshinaga-Itano, C. 1987. Aural habilitation: A key to the acquisition of knowledge, language and speech. *Seminars in Hearing* 8(2)-169-74
- Yoshinaga-Itano, C., and Stredler Brown, A. 1990. Parent-child interaction: Characteristics of the parents' language. Training workshop for the Home Intervention Program.
- Yoshinaga-Itano, C., and Ruberry, J. 1988. *Speech Intelligibility Checklist.* Denver, CO: Colorado Department of Education.