Project TIE (Teams in Early Intervention) was conceptualized to meet the need for: (1) involvement of formerly "ancillary" service professionals in early intervention for children with disabilities, (2) high quality family-centered services, and (3) training in the team approach. The project provides training to four groups that might constitute an early intervention team--speech/language pathologists, motor therapists, health care professionals, and family members. The training is designed to enable participants to determine what supports and interferes with children's performance, develop shared perspectives in viewing children's performance, apply a common conceptual framework for early intervention, explore how each profession addresses early intervention team practices, know what other team members expect from them, and improve information sharing among team members. This introductory training module contains a paper by Carol Westby titled "Developing Cultural Competence: Working with Culturally/Linguistically Diverse Families." The paper examines controversial issues in cultural diversity, cultural variations in values and beliefs, cultural differences affecting child development, and cultural influences on interviewing. Another paper, "The Performance Competence Mod 1: A Narrative Discussion" by Meave Stevens Dominguez, promotes a holistic view of the child within the context of the child's personal characteristics, preferences, environments, family, and culture. Appendices contain a sample training agenda and cards for use in a performance competence game. (Contains approximately 120 references.) (JDD)
Introduction: Getting Started

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Introductory Module
BACKGROUND OF PROJECT TIE

Early intervention professionals have the opportunity to make this last decade of the 20th century one of innovation for our field. P.L. 99-457, passed in 1986 and amended in 1991, (I.D.E.A.-Individuals with Disabilities Education Act) affords us new opportunities to form partnerships with families, professionals from a variety of disciplines, and policy and service agencies. This landmark legislation and subsequent regulations demonstrate a clear intent for families to be closely involved in the critical decisions that will affect the nature of services they and their children receive. Further, there is emphasis on various professional disciplines working together to provide integrated and coordinated services. Careful review of the regulations reveals a sense that teamwork is paramount: that parents must be part of the team; that professionals from many disciplines will constitute “qualified personnel”; that professionals must work with one another and with the family on behalf of the child; and, that agencies must collaborate in order to ease access to service systems by families and to ensure smooth transitions. What we once considered to be “best practice” is now the law.

Project TIE was conceptualized to address:

1. **The critical need to bring professionals from the fields once viewed as “ancillary” services into early intervention.**

   In reviewing a 1990 RFP for inservice training models, and in deciding how best to respond, TIE staff identified two additional needs that influenced how we conceived this project:

   2. **The need for high quality family centered services.**

   There is a large body of literature to support the premise that the most effective early intervention programs are likely to be those that apply a family
Introductory Module

system or ecological approach. This approach recognizes the important fact that a child exists in an ecological system, the family, and that facilitating child development should, therefore, occur "in context." To carry out the intent of Part H involves more than simply informing parents that they are part of the "team." It would be a mistake to underestimate what is required of staff and families. All professional and paraprofessional providers must understand the inextricable relationship of the child to the family, have respect for the beliefs and cultural styles of families, and gain competence in listening, interviewing and communication skills. At the same time, we don't want to minimize the importance of being an expert in one's field. Being family-centered is no substitute for expertise. Families need both from professionals. Parents, too, may require new or enhanced skills to feel comfortable and competent as equal partners on a team.

3. The need for training in the Team Approach.

The regulations for Part H (the infant toddler section of I.D.E.A.) emphasize the importance of collaboration among professionals in providing "integrated and coordinated services, including evaluation and assessment activities and the development of the IFSP." They also call for preservice and inservice training to be done on an interdisciplinary basis. The team approach is also viewed as the most effective way for families to access the expertise of all needed disciplines without having to receive individual services from each discipline. Lisbeth Vincent (1991) recently discussed an important study conducted with Hispanic families in the Los Angeles area, where these families stated that the support they received from paraprofessionals was more important to them than the support they received from the professionals. Parents expressed a desire that the decision-making role of the paraprofessionals be increased on the early intervention teams. Dr. Vincent concluded that what we must do is model for families that non-professionals can be decision-makers on a team. In the long run, this will help families realize that they can be decision-makers on teams. While we plan to share strategies and information with parents, this doesn't mean that they have to do it all.
Rather, they will learn how to access professionals who will, in turn, provide families with more and better strategies.

Project TIE was constructed to address all three of these issues. Rather than simply provide inservice training about early intervention to professionals from specific disciplines, we proposed to work with teams at early intervention programs and to provide training to four groups that might constitute an early intervention team — speech and language pathologists, motor therapists, health care professionals, and family members.

The TIE training is designed so that participants will be able to:

1. determine what supports and interferes with children's performance;
2. develop shared perspectives in viewing children’s performance;
3. apply a common conceptual framework for early intervention;
4. explore how each profession addresses early intervention team practices;
5. know what other team members expect from them;
6. improve information sharing among team members.

These are the essential competencies upon which the training is based. Our interest in competence stems from research that reveals that a significant factor in employee attraction and retention is job satisfaction, and that this is often reflected in employees’ statements regarding their feelings of competence on the job. We view competence as a continuum. Where we are on this continuum of competence is influenced by our formal training, our experiences in life, our informal training, our age, personal interests, peer support available to us, etc. Inservice training is one vehicle to attain competence; yet, the effect of such training depends upon where one is on the continuum.
ACKNOWLEDGMENTS

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These modules would not have been possible without the contributions of each of these individuals.
INTRODUCTORY MODULE

HOW TO USE THE MODULES

The TIE modules were designed to be used by experienced inservice trainers representing each of the four groups — parents, speech/language pathologists, occupational or physical therapists, and health care professionals. For example, the SLP module should be taught by a speech/language pathologist who is comfortable providing consultation or inservice training. The modules may be used at the same time, in a workshop attended by all four groups, or separately, in a workshop attended by one specific group. All groups should receive training in the "Introductory Module" before going on to participate in what we have described as "discipline-specific" training.

Next, each group should receive training by one member from each of the other three groups. This segment of the training is entitled, "Pathways to Teaming." For example, the health care professionals should receive training by a parent, SLP, and OT or PT. The purpose of this segment is to provide an orientation to each of the disciplines/groups and their roles on early intervention teams, as well as to provide some specific, practical information about each area of expertise that will have useful, discrete application to other team members.

Following this type of session, each group should participate in presentations facilitated by a member of their own expert group (e.g., a parent leads a group of parents in discussion). This segment of the training is entitled, "A Framework for Early Intervention," and its purpose is to apply the Performance Competence Model to each discipline area, as well as to provide state-of-the-art information about specific aspects of working with infants and toddlers as part of an early intervention team.

Group activities are an integral part of the training. When all four groups are represented, small interdisciplinary teams can be formed to work on group activities. Activities can also be carried out when only one of the groups is participating in the training, and all trainees would benefit from the information included in the "Discovering Team Culture Module."
Introductory Module

When you see this symbol:  Do this:

- Give out appropriate numbered handout.
- Refer to bibliography.
- Facilitate group participation.
- Show slides of choice.*
- Show video or film of choice.*
- Display appropriate overhead.
- Record the ideas generated by group discussion.
- Play Performance Competence Game.

*Specific video and slides are not included.
I. What is Culture?

A. Definition of Culture

Appropriate assessment and treatment of culturally/linguistically diverse children and their families requires an understanding of their culture. What does it mean to understand a culture? Numerous misconceptions of culture exist. It is often equated with art, music, food, and holiday celebrations or with the language one speaks. Such a view of culture results in the belief that understanding another culture can be accomplished simply by participating in its celebrations and learning the language. But culture involves more than the things people make and use. It also includes how people interact with one another and their beliefs and values. Culture is:

- How and why we behave in certain ways
- How we perceive reality
- What we believe to be true
- What we build and create
- What we accept as good and desirable

B. Speaking the Language is Not Enough

Being bilingual is often equated with being bicultural, but a bilingual person is not necessarily bicultural. Being bilingual will not insure effective communication, if you do not recognize a person’s values, beliefs, and patterns of interaction. In fact, some of our most serious miscommunications may occur when we are speaking the same language. Gary Larson, creator of the Far Side cartoons, mistakenly assumed that being bilingual results in effective communication. In one cartoon he depicts a man attempting to talk with a duck. The man tries, “Sprechen sie deutsch?” and gets no response. Next he tries, “Habla espanol?” and still he receives no response. He then tries, “Parlez-vous français?” The duck continues to stare at him. Finally the man looks at the duck and says, “quack?” The duck responds with “Quack!” and the man and the duck continue their conversation. The byline reads “It’s nice to have someone who understands me.”

Now, I have a pet duck, Mocha, and I have learned that speaking quack is not sufficient for effective communication with a duck. I speak quack. I know that
a loud, prolonged “muck muck muck” means, “You’ve left me outside, and I want in.” I know that a soft, short, quick series of “muck, muck, muck” means, “I’ve just seen a big, black New Mexican cockroach.” — which are the chocolate chips of the duck world. Despite being bilingual in English and Quack, I have not been able to avoid miscommunication problems with Mocha.

We bought Mocha shortly after he hatched from his egg at the feed store. He quickly imprinted on my husband and for several months followed him everywhere. Eventually, he began to show an interest in me. He would nibble at my ankles and stretch and bob his neck. Because he looked uncomfortable as he did this, I thought he had a sore throat or something in his throat. I took him to the vet. It cost me $15 to learn that this duck was a drake, he was going through his second imprinting, and his head bobbing meant he was propositioning me to be his wife.

You can see that an adequate evaluation of Mocha’s behavior requires an understanding of “duck culture.” I cannot assume that what I know to be true of humans is true for ducks. Otherwise, I might treat Mocha’s normal behaviors as pathological and seek unnecessary and inappropriate treatment. I do not believe that Mocha has suffered from my lack of knowledge of duck culture. Inadequate understanding of human cultural/linguistic diversity can, however, harm persons. Culturally/linguistically different clients have frequently been inappropriately placed in special education classes; treatment approaches have been used that violate client values and beliefs; and true speech, language, and hearing problems have sometimes not been identified.

II. How To Talk About Cultural Diversity

A. Relationships between nature and nurture

Talk about racial/ethnic/cultural variations is a sensitive matter. Some, who consider themselves to be very egalitarian, say there are no differences among people. “We are all the same under the skin.” Others, also in an attempt to be egalitarian, maintain that everyone is unique. Although on the surface these two attitudes appear admirable, in actuality, they create many problems.

Saville-Troike (1978) suggested, “There are indeed real differences between groups of people; we must recognize, understand, and respect these real cultural differences, and not simplistically proclaim that ‘all people are the same underneath the skin.’ This assertion seems to be egalitarian, but it often hides a basic ethnocentric assumption, that all people are ‘like me,’ and that to say otherwise would be degrading them” (p.viii).
The following framework, depicted in Figure 1, provides a means of dealing with these apparently disparate concepts.

Figure 1.

Because each person is human, and consequently has human physiology, each person is like all other persons in a great part of our being. At the same time, each person has had unique experiences. Even if one has an identical twin brother or sister, he or she has not had the exact same experiences as you. Consequently, each person is like no other person. There are, however, some experiences that we share with some people and do not share with others. This is the area that is influenced by our culture, values, and beliefs. Our racial/ethnic backgrounds may contribute to our values and beliefs, but so may other factors such as socioeconomic level, age, region of the country, area of town, etc.

B. Controversial Issues

When we discuss racial/ethnic/cultural variations, several areas of concern arise:

1. Difference versus deficit.

a. Differences do not indicate inherent deficits. There is a tendency to equate difference with deficit. In the 1960's War on Poverty, differences in language patterns among lower and middle socioeconomic populations were identified. The differences, however, were quickly seen as deficits. Some have suggested that these differences represented inherent, biological deficits—that some racial/ethnic groups are not as capable as others (Jensen, 1981). Differences do exist, but we must avoid viewing these differences as representative of inherent deficits. At the same time, we should acknowledge that differences have the potential to create deficits when they are not compatible with the demands of the environment.
b. Differences often develop in response to what is perceived as important for survival. In certain contexts these differences are advantageous.

c. In some contexts, a difference can be a deficit. English speakers trying to work in a Spanish-speaking community would be at a deficit if they did not speak a local language. Differences in turn-taking patterns can often lead to miscommunication. Individuals from cultures that overlap turns or have very brief times between turns may be perceived as rude in cultures that allow long pauses between turns. In some Hispanic homes, children are not expected to label, but instead to give functions of objects. This is a difference in language development. It does not represent an inherent deficit in naming ability, but in the school environment, this lack of labels becomes a deficit.

2. Stereotyping versus individualism. We must balance attention to the group with allowance for the individual; assuming that everyone is the same is as harmful as assuming everyone is different. No one person exhibits all characteristics of a group; and one can still be a member of a group without exhibiting all the characteristics of the group. Articles and books exist which discuss characteristics of various ethnic/racial groups. Knowledge of behaviors, values, and beliefs associated with particular ethnic/racial groups can alert us to areas that may cause miscommunication. This knowledge, however, should be used very cautiously. We should not assume that every individual or group will exhibit those behaviors and beliefs. For example, many persons have been led to believe that parrots like crackers. Yet my parrot rejects crackers. Having adapted to Southwest culture, he prefers hot chili peppers. I must also be careful not to assume that a behavior a person exhibits is related to his/her cultural background. It may simply be a behavior unique to the person. For example, Mocha Duck likes to come in the house, find a shoe, put it on his head, and run with it. I must not assume that all ducks would enjoy running with shoes on their head. I suspect that this behavior is unique to Mocha and may be his adaptation to an unusual living experience for a duck.

3. Nature versus nurture. A long-time question of psychologists in the United States has been how much of a person's behavior is attributable to nature (biology) and how much is attributable to nurture (culture). The sociobiologist, Freedman (1974), maintained that behavior is 100% biological (innate) and 100% cultural (acquired). Biology and culture are so intertwined that they cannot be separated.
III. Why We Need To Understand Cultural/Linguistic Diversity

A. Changing Population Demographics

Changing demographics are resulting in significant changes in the types of clients being served by speech-language pathologists and audiologists. According to the 1990 U.S. Census, which admittedly undercounted people of color, the minority population of the United States exceeds 60 million. One American in four already defines himself or herself as Hispanic, African American, Asian American, Pacific Islander, or Native American. If current trends in immigration and birth rate persist, the Hispanic population will have further increased by an estimated 21%, the Asian population by about 22%, Blacks by almost 12%, and Whites by a little more than 2% by the end of the twentieth century. Several states already have a third or more of their populations from non-dominant cultural groups and many large cities are more than 50% minority. By 2010, one-third of the American people will be people of color and, by 2056, White Americans will be a minority group. The implication is that whether you identify yourself with the Euro-American culture or with a minority culture, many of your clients will come from a culture different from your own.

B. Cultural Variations In Values and Beliefs

Each culture has values and beliefs that direct the behavior of its members. Think about the values and beliefs reflected in the following proverbs. How might these differing values affect your interaction with persons from these cultures?

A man’s home is his castle. (English)
Mi casa, su casa. (Spanish)

The squeaky wheel gets the grease. (American)
The duck that quacks loudest gets shot. (Chinese)

Take care of #1. (American)
The group always comes first. (many traditional cultures)

What people do about developmental delays and disabilities is related to their beliefs about what is a disability. For example, professionals from mainstream American culture generally regard hearing loss and speech-language delays and disorders as potential and significant disabilities. Consequently, they are likely to recommend medical treatment for otitis media, hearing aids for sensory neural hearing loss, and therapy for speech-language delays and disorders. In taciturn cultures and cultures where children are to be “seen and not heard,”
families may not recognize the hearing or speech/language disorders that concern mainstream professionals. Mainstream culture places a high value on communication skills. Adults encourage children to ask and answer questions, and tell stories. Once a child walks, parents focus on a child's talking. If a mainstream child is not talking by age 18 months or 2 years, parents express concern. In contrast, many non-mainstream cultures do not place a high value on verbal children. Crago (1988), in a study of Inuit children, reports being intrigued with a young Inuit child who was more verbal than other children. She viewed the child as highly capable. When she questioned adults about this child, however, she gained a different perspective. They reported that they too were concerned about the child — because he didn't know when to keep quiet!

In order to understand peoples' responses to potential disabilities, you must understand what they value. Table 1 on the following page summarizes the dimensions of cultural value-orientation systems (Kluckhohn, as cited in Kohls, 1984).
# Introductory Module

**Table 1.**

<table>
<thead>
<tr>
<th>ORIENTATION</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Nature</strong></td>
<td></td>
</tr>
<tr>
<td>Basically Evil</td>
<td>Neutral</td>
</tr>
<tr>
<td>Mutable</td>
<td>Mixture of Good &amp; Evil</td>
</tr>
<tr>
<td>Immutable</td>
<td>Basically Good</td>
</tr>
<tr>
<td></td>
<td>Immutable</td>
</tr>
<tr>
<td>Man-Nature Relationship</td>
<td>Subjugation to Nature</td>
</tr>
<tr>
<td></td>
<td>Harmony with Nature</td>
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<tr>
<td></td>
<td>Mastery Over Nature</td>
</tr>
<tr>
<td>Time Sense</td>
<td>Past-Oriented (Tradition Bound)</td>
</tr>
<tr>
<td></td>
<td>Present-Oriented (Situational)</td>
</tr>
<tr>
<td></td>
<td>Future-Oriented (Goal-Oriented)</td>
</tr>
<tr>
<td>Activity</td>
<td>Being (Expressive/Emotional)</td>
</tr>
<tr>
<td></td>
<td>Being-in-Becoming*</td>
</tr>
<tr>
<td></td>
<td>Doing (Action-Oriented)</td>
</tr>
<tr>
<td>Social Relations</td>
<td>Lineality** (Authoritarian)</td>
</tr>
<tr>
<td></td>
<td>Collaterality*** (Collective Decisions)</td>
</tr>
<tr>
<td></td>
<td>Individualism**** (Equal Rights)</td>
</tr>
</tbody>
</table>

Explanations of terms used above:

* Being-In-Becoming: The personality is given to containment and control by means of such activities as meditation and detachment for the purpose of the development of the self as a unified whole.

**Lineality: Lines of authority clearly established and dominant. Subordinate relationships clearly defined and respected rights according to rank.

***Collaterality: Man is an individual and also a member of many groups and subgroups. He is independent and dependent at the same time.

****Individualism: Autonomy of the individual.

## explanations:

<table>
<thead>
<tr>
<th>ORIENTATION</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Nature</strong></td>
<td></td>
</tr>
<tr>
<td>Most people can't be trusted.</td>
<td>There are both evil people and good people in the world and you have to check people out to find out which they are.</td>
</tr>
<tr>
<td>Life is largely determined by external forces such as God, fate, or genetics. A person can't surpass the conditions life has set.</td>
<td>Man should, in every way, live in complete harmony with nature.</td>
</tr>
<tr>
<td>Man should learn from history and attempt to emulate the glorious ages of the past.</td>
<td>The present moment is everything. Let's make the most of it. Don't worry about tomorrow. Enjoy today.</td>
</tr>
<tr>
<td>It's enough to just &quot;be.&quot; It's not necessary to accomplish great things in life to feel your life has been worthwhile.</td>
<td>Man's main purpose for being placed on this earth is for one's own inner development.</td>
</tr>
<tr>
<td>Some people are born to lead others. There are &quot;leaders&quot; and there are &quot;followers&quot; in this world.</td>
<td>Whenever I have a serious problem, I like to get the advice of my family or close friends in how best to solve it.</td>
</tr>
</tbody>
</table>

1. Values in mainstream cultures. Persons in the mainstream American culture tend to look toward the future. They focus on being active and demonstrating their accomplishments. Who they are and what they are worth are dependent upon what they do. Children are socialized to be independent. They are rewarded for accomplishments they achieve on their own. People are viewed as having power over nature. As adults, persons are responsible for mastering circumstances that arise. With this value system, mainstream families tend to think about the significance of a disability for the future. They may ask, “When will she learn to talk?” “Will therapy correct the problem?” They express concern regarding what children cannot do, what they will be able to do, and when they be able to do it. Families take responsibility for making a change in the disability. Persons with these mainstream values seek treatment for speech-language-hearing disabilities and are active in their therapy.

2. Values in non-mainstream culture. Many non-mainstream American cultures focus on the present and value the past. Persons are valued simply for their existence or being, not for what they can do. Persons are interdependent, not independent. Families may consist not only of children and parents, but also of grandparents, aunts, uncles, cousins, and even non-related friends. People may believe that they cannot impact nature and what happens to them; they may attempt to live in harmony with events or they may believe there is nothing they can do about their circumstances. In these non-mainstream cultures, people generally have a greater tolerance for variation; they may feel less need to “fix things” and focus instead on learning how to accept and cope with their circumstances. Families may recognize that a child is different from others, but accept that difference as being who the child is. As an Hispanic mother said when enrolling her nonspeaking child in kindergarten, “Luis is my quiet one.” She was aware that Luis did not talk much, but she accepted his quietness as just being Luis. Because of these beliefs, persons from cultures with non-mainstream values may be less likely to seek out evaluation and treatment services. When they do become involved, it is important to include the extended family in decisions.

Even when a difference is recognized, non-mainstream families may not approach treatment in the expected way. Mainstream professionals generally believe that a physician or certified therapist should be immediately consulted to perform necessary surgery or treatment when a handicapping condition is diagnosed. In contrast, Native American families may need to consult a medicine man before having their child treated for otitis media. Hispanics may employ the services of a “curandero” (healer) before or while they are receiving mainstream therapies.
IV. Cultural Differences Affecting Child Development

Assessment procedures and early intervention programs are heavily dependent on effective communication. One must communicate with the family to determine their resources, their concerns, and their needs. One must communicate with the child to conduct the evaluation and intervention. The child must be able to communicate in some way with his/her family, the evaluator, and the programmer. The ways we learn to communicate are dependent upon our culture. It has been proposed that culture is communication and communication is culture. Effective evaluations and intervention strategies are dependent upon effective communication. We must understand how communication development may be affected by culture.

A. Newborn Differences On The Brazelton Neonatal Scale.

Neonatal infant assessments have been done worldwide using the Brazelton Neonatal Behavioral Assessment Scales to evaluate the behavioral organization and development of neonates. The Brazelton Scale views the infant as part of a reciprocal interaction feedback system between infant and caregiver (Brazelton, 1973). Sixteen reflexes and 26 behavioral items are evaluated. These reflexes and behaviors can be grouped into four areas: (1) interactive processes including general alertness and orientation to visual and auditory stimuli, (2) motor processes including tone, reflex activity, and motor control, (3) regulation of state including habituation to stimuli, irritability, lability, consolability, and self-quieting, and (4) physiological regulation involving tremulousness, startle, and lability of skin color.

1. Differences in motor processes. Numerous studies of Black infants in Africa and the United States have confirmed the impressions of Black infants’ motor precocity in comparison to other cultural and ethnic groups (Brazelton, 1990; Brazelton, Kowowski, & Tronick, 1976; Freedman, 1974; Gerber & Dean, 1966; Warren, 1972). On reflex testing, Black infants were the most advanced, followed by White, then Chinese and finally Navajo infants. Navajos had significantly less resistance in muscle tone, and when held vertically they did not straighten their legs to support themselves to make walking movements. On the other hand, both White and Black babies would weight bear and take several steps. Black neonates showed little head lag when pulled to sit and could hold their heads erect. In a prone position, they could lift their heads immediately after birth, unlike Japanese, Chinese, White, and Navajo babies. Black African infants walked at 11 months, compared to 12 months for White and 13-14 months for Navajos and Hopis. African-American newborns’ abilities were somewhere between those of American Whites and Black Africans, that is, they were motorically more precocious than Whites, but less so than Black Africans.
babies exhibited vigorous, directed motor behavior. Motor activity could, at times, disrupt attention and the babies needed to be contained in order to continue to pay attention to visual and auditory cues. The motor behaviors of Japanese and Chinese babies were more fluid, slower, and smooth. Motor intensity was low, and as a result, motor behaviors did not interfere with prolonged periods of attention. These babies paid attention to auditory and visual stimuli for significantly longer periods; however, the auditory and visual stimuli must be reduced in intensity and in rhythm to capture the baby’s attention. If the stimuli were too loud or too rapid, the baby would shut them out or react by screaming loudly and inconsolably.

2. Differences in regulation of state. Studies have also reported that infants differ in the degree and ways they regulate their emotional state. White infants cried more easily and were more difficult to console than Chinese Americans, Japanese-Americans, Blacks, and Navajos. Chinese and Navajo infants did not cry as easily, stopped crying abruptly when picked up, and were more successful in calming themselves without adult intervention. Chinese and Navajo babies also adapted to almost any position in which they were placed. White infants reportedly calm more quickly when sound is removed; Native American infants calm more quickly when vision is removed (as by putting a blanket over the hood of a cradle board).

CAUTION: We should not assume that all infants within a culture are identical, nor should we assume that White infant development represents an optimal norm. What might be considered a problem or deficit for an infant in one culture may not be so in another. For example, both the high activity level of Black infants and the marked passivity and low tone of Navajo infants could easily be viewed as pathological by White professionals unfamiliar with infants from these cultures. These same professionals may also discount concerns expressed by parents from racial ethnic minority cultures. Parents come to expect certain patterns of temperament and development from their children, and if this pattern in one child is noticeably different from their other children, it could signal real problems to them. A Black or White family may tolerate a more active and irritable baby than an Asian or Navajo family. In Asian or Navajo families, irritability that might be quite normal for a Black or White infant could be an accurate signal that the baby is experiencing problems.

B. Caregiver-infant Interaction.

Cultures also vary in the roles mothers and other family and community members assume with infants and the kinds of interactions that adults and children engage infants in.
1. Who is the caregiver; who is the socializer. Most child development literature assumes that mothers are the primary caregivers and the primary socializers. It is also assumed that mothers engage in dyadic interactions with their infants. But, mothers are not the primary caregiver and the primary socializer in all cultures, and not all caregiver-child interactions are dyadic (Eisenberg, 1982; Werner, 1984). The mother may be only one of several caregivers, or the toddler may be turned over to a multi-age group of siblings and peers for essential services including feeding, supervision, and protection (Draper & Harpending, 1983). In White middle-class families, the infant is generally born into a nuclear family of a mother, father and one to three siblings, and all decisions about the care of the infant come from the mother and father. Even grandparents, aunts, uncles, and best friends often have to ask permission to pick up the baby. In other cultures, the infant may be born into an extended family or even an entire community. Heath (1983) reported child-rearing practices in lower socioeconomic White and Black communities in the Carolinas. In the White community, infants were born into the extended family. If the infant was a first child, an older woman in the family, such as a grandmother or aunt, assumed considerable care of the infant. This was done as a means of training the young mother in child-rearing practices and, in part, how to talk to infants. In the Black community, the infant was born into the community. Anyone in the community had the right to pick the infant up, poke it, prod it, and discipline it.

Sibling child-rearing practices are common in many Black, Hawaiian, Native American, and Mexican-American and other Hispanic communities (Werner, 1984). Once infants begin to walk, they become the charge of their siblings and peers. In sibling child-rearing cultures, infants and children are not usually isolated from adults. They are generally in the center of any activity occurring, and they have the opportunity to observe adult and child interactions. In these cultures, children often learn to talk from peers, and they generally talk only to peers. In some of these cultures, children are not expected to talk with adults; they are only to listen and obey. Peers do not talk to younger children in the same way or for the same purposes that adults do (Circirelli, 1976a, 1976b). Heath (1983) noted that early language functions in young Black children were cussing, bossing, begging, fussing, and comforting. In societies that use sibling care, siblings are found to be more nurturant and responsible than children who do not have such responsibility, however achievement motivation may be sacrificed for the sake of affiliation (Gallimore, Boggs, & Jordan, 1974). Such children are inclined to attend to peers and group activity rather than teachers and individual work. Peer child-rearing appears to encourage interdependency of members within a culture, while adult child care encourages independence (Draper & Harpending, 1983).
Clinicians and teachers need to be aware that, in a sibling child-rearing culture, the mother may not be the best source of information about a child's skills or abilities, and she may not be the only or most appropriate person to work with a child in an assessment session or intervention program. In a sibling child-rearing culture, older siblings might make the best teachers. Stewart and Stewart (1976) reported that sibling teachers gave their brothers and sisters significantly more total feedback and more positive feedback than did the mothers, and the learners accepted their siblings' instruction more than when the mothers were the teachers.

2. Kinds of activities. Cultures differ in the types of activities adults provide to infants and children. Field and Widmayer (1981) investigated mother-infant interactions in four groups of lower socioeconomic families in Florida: Black, Cuban, South American, and Puerto Rican. The mothers were video-taped in face-to-face interaction with their infants for a three minute period. Although Black mothers vocalized little to their infants (14% of the time), the Hispanic mothers vocalized considerably more, but to varying degrees, i.e., Cubans 82%, South Americans 75%, Puerto Ricans 56%. Field and Widmayer noted that Cuban mothers engaged in more teaching games such as labeling, and Puerto Rican mothers engaged in more social games such as pat-a-cake and peek-a-boo. South American mothers showed a mixture of teaching and social games and Blacks did little of either. Field and Widmayer suggested these differences were due to the mothers' different hidden agendas. The Cuban mothers' primary objective was educating their children, while Black mothers expressed concern that they not spoil their children by giving them too much attention. Callaghan (1981) and Farjado and Freedman (1981) both reported very limited mother-infant vocalization in Navajo mother-infant dyads. In fact, the vocalizations were so limited in some mother-infant dyads that in one study 25% of the Navajo mothers never vocalized at all during the observation time. Iglesias (1988) suggested that the Cuban mothers' great amount of talking may have been related to their adaptations to mainstream life in the United States. He reported that talking to infants in that way and to that degree had not been characteristic of Cuban mothers before their arrival in the United States. He hypothesized that Cuban mothers wanted their children to be as successful as other children in the United States. As they became aware of the mainstream orientation to talking with infants and teaching labeling, they adopted the behavior.

Vocalizing and talking are not the only ways to interact with infants. The variety and total amount of caregiver-infant interactions vary across cultures. Callaghan (1981) compared White, Hopi, and Navajo mother-infant interactions by asking them to try to get and maintain their baby's attention. He reported that all three groups spent the same amount of time in face to face interaction, but that the Anglo mothers engaged in the greatest variety of interaction types, the Navajos...
engaged in the least amount of any activity, and the Hopi mothers were in between. The Anglo mothers relied primarily on vocalizations and repositioning when interacting with their infants. While holding their infants, they were likely to reposition the infant from their laps to their shoulders, and to their knees to the greatest degree. Hopi mothers used primarily active tactile movements such as bouncing, jiggling, and poking; while Anglos and Navajos used these much less and to the same degree. Ward (1971) and Heath (1983) reported that Blacks in Louisiana and the Carolina Piedmont also talked very little to their infants, but engaged in active movement activities, sometimes poking and pinching until the infants cried.

3. Rhythmicity of interaction. Despite differences in the amount and types of caregiver-infant interactions, studies have reported no differences in the amount of time the mother and infant spend looking at each other. Callaghan (1981) reported that Navajo and Hopi infants had fewer mutual gaze events than Anglo infants, but their mutual gaze events were longer. Fajardo and Freedman (1981) also reported similar amounts of mutual mother-infant gaze time in Black, Anglo, and Navajo infants, but the manner in which their mutual gaze events were achieved was quite different in each of the groups. The mothers of 3-4 month old infants were asked to get their babies' attention. Their vocal rhythmicity was determined by calculating the time intervals between peaks of vocal emphasis, e.g., the points of greatest accentuation in vocal pitch, loudness, or inflection. Black mothers seemed to have a steady and regular beat, regardless of their infants' attentiveness, and they appeared to be more involved in producing interesting performances than with responding to their babies' cues. White mothers' rhythms were more variable, and had more pauses in them that seemed to be related to the infants' responses and to the mothers' attempts to get the babies to perform. Navajo mothers seemed to have almost no beat at all and were passive and silent. The babies in all groups were equally alert. The more rhythmic the behavior of the Black and White mothers, the more attentive their infants. The more rhythmic the Navajo mothers, the less attentive their infants. Yet, overall the infants in all groups attended the same amount of time to their mothers. It appeared that the mothers' styles of interaction were appropriate for their infants.

The Black mothers who have the most active babies with a higher tolerance for stimuli, had the most rhythmic and dramatic interaction patterns. White mothers were more tuned into their infants' attentiveness and inattentiveness. When their babies turned away, mothers reduced stimulation by ceasing their vocalizations. The silent, passive Navajo maternal behavior interacted with the self-soothing and self-regulation abilities of their infants.
C. Child-rearing Beliefs.

Child-rearing practices interact to socialize children for optimal adjustment and success in their home cultures, which may not be the majority culture. To families from other cultures, the suggestions of White middle class professionals may not make sense or may be actively rejected because they go counter to the family's beliefs about the children's capabilities and the goals of their development.

1. Dependency versus independency. In general, Eastern or Asian cultures view the infant as being independent, and they seek to develop the child's interdependence on the family and society. Western cultures view the child as dependent and encourage independence and autonomy (Christopher, 1983; Kagan, Kearsley, & Zelazo, 1978). Cultures that seek to facilitate dependency in children encourage passiveness and contentedness (Caudill & Weinstein, 1969). In these cultures, infants needs are often anticipated so that it is not necessary for them to make their needs known, and children come to expect others to meet their needs. In cultures that seek to facilitate the development of independence, assertiveness and self direction are encouraged. It is interesting to note that Asians, who value interdependence and serenity, have infants who are born with passive contented dispositions, and Western cultures, which have more active and irritable infants, value abilities that are compatible with these dispositions.

Whites, Hispanics, and Blacks all tend to value independence, but they do it in different ways and to varying degrees. White Euro-American families tend to be physically protective of the child, baby proofing their homes and not allowing toddlers to roam beyond the confines of their home or yard. But, they encourage verbal precocity. Although they complain about the tantrums of the terrible twos, they also anticipate them and view them as signs of infants' growing independence. Children are encouraged to express their needs and justify them, and their explanations are often accepted. Blacks also seek the infants' independence and they avoid catering to the infants' cries for fear of "spoil" the baby (Field & Widmayer, 1981). Briggs (1986), who studied a Hispanic community in northern New Mexico, reported that toddlers were not protected from other children and were expected to defend themselves. Once they were ambulatory, children were not picked up when they injured themselves or were "roughed up" by other children. Constant intervention by adults was felt to prevent the children from learning how to stand up for their own rights and maintain their "dignidad de la persona" (personal dignity). Miller (1979) reported that lower socioeconomic Whites in South Baltimore also expected and encouraged their children to defend their rights, and they gave their toddlers and children direct training in asserting, teasing, and challenging in confrontive situations. Although White, Black, and
Hispanic groups all encourage the child's independence and assertiveness. Blacks and Hispanics also encourage responsibility and loyalty to the extended family, while White middle class families do not expect this. The sibling child-rearing practices in Black and Hispanic cultures compared to adult child-rearing practices in middle class White families contribute to this loyalty and interdependence (Draper & Harpending, 1983).

2. Belief in the supernatural. Beliefs about the supernatural can also affect child-rearing practices. Belief in an “evil eye” is common in many cultures throughout the world and continues to exist among many Hispanic groups and among some Southern Blacks (Delgado, 1981; Mehn & Dunn, 1985). The concept of the “evil eye” involves the ability of someone within the culture to bring harm to an individual (Dundes, 1980). Babies are especially prone to the evil eye, particularly if they are attractive or become excited. Praise can be a basis for bringing on the evil eye, because the reverse side of praise is envy, and one who is envious may wish to cause harm. With these beliefs, one would not want to overly excite infants and get them laughing, nor would one seek to praise or draw attention on young children by commenting on their attractiveness.

3. Intentionality. Cultures vary in their beliefs regarding the age when infants’ or children’s behavior becomes intentional. Middle-class White families act as if the infant’s behavior is intentional from birth. They respond as though the baby is attempting to communicate with them, interpreting the infant's movements and vocalizations. Northern New Mexican Hispanics do not view infants during the first year as intentional, and consequently, they do not attempt to talk with them. When the infant is approximately 14 months old, they decide the infant is ready to talk and they begin encouraging imitation of words, but the words selected are not necessarily words the infant would use to communicate intentions, but instead are words that would be appropriate in social situations (Briggs, 1984). Eisenberg (1982) noted a similar interactional pattern in Mexican-American families in California. Like the New Mexican Hispanics, the majority of conversations involving adults and children were triadic rather than dyadic. The adults helped the children initiate and maintain conversations with a third individual. Using the expression, “dele,” (say to him/her), the adult would give the child a message to repeat to someone else. What the adults told the children to say did not reflect the children's intentions, but instead, reflected the adults' beliefs concerning how different individuals should be addressed. Heath (1983) reported that Blacks in her study also did not believe that an infant was able to or needed to communicate with them. Because the infants were not seen as being able to communicate, their cries and vocalizations were not systematically attended to.
In cultures that do not believe these early words and sounds are communicative, they are not attended to and expanded. When adults interpret babies' behavior as intentional communication, they will model words for the baby's intentions and expand the baby's utterances. When adults believe that children need to be taught to speak, they will encourage repetition of socially relevant language.

In cultures that believe children learn to talk by observing others, children are allowed to observe many adult interactions around them; and in these circumstances children's first words are likely to be those that attract their attention. Och's (1982), reporting on child-rearing practices in Western Samoa, noted that mothers frequently reported the use of the word “shit” as the child's first word. Such words are usually spoken with increased loudness and intonation and in circumstances in which some important emotionally-laden event had occurred. All of this would focus the child's attention on such words. Ochs observed that Western Samoan families would not correct or punish children for words such as these because they believed the children had no intentional control over their behavior. Similarly, Briggs reported that the Hispanics he studied also did not believe infants and toddlers had any control over their behavior. They were innocentes (innocent ones) and could not be blamed for their own actions. Ward (1971) reported that the Black families she studied considered children to be basically “bad”; consequently, they used “bad words.” Although one could punish children, one could not really affect their behavior and control them.

Children's early language development is affected by their culture's beliefs about children's capabilities and modes of learning. Language learning can occur in three ways: (1) words modelled by adults to reflect the infant's intentions; (2) phrases modelled by adults for the children to repeat in appropriate social situations, and (3) language overheard when others are talking. Most cultures make some use of all three approaches, but certain cultures make use of some more than others. The manner in which children acquire their language will determine the vocabulary and functions of their language, and adults in the culture may not consider that children are truly talking until they use the language in the expected ways. Members of cultures that do not view infants as intentional communicators may not readily accept suggestions to talk with their infants. Such infants and toddlers are not likely to label pictures and objects used in standardized test procedures. The words they do know are more likely to be words that are associated with activity and excitement in a particular environment. When outside their familiar environment, such children may appear to be nonverbal.

4. The role of the child in the family and community. In some families, children are to be seen and not heard. Adults do not engage children in conversation and children are not expected to initiate conversation with adults for
the sake of talking. Children are to follow directions adults give without questioning. In mainstream cultures, children are frequently equal participants with adults in conversations. Their ideas and opinions are sought after and accepted. In addition, children are frequently encouraged to display their verbal skills before adults. They can initiate conversation with adults and can request reasons for directions adults give to them.

V. Cultural Influences On Interviewing

Working with children and their families requires that we recognize their cultural values and beliefs. We can learn about people's culture by watching and listening. Interviewing should enable the interviewer to gain an understanding of the world through the eyes of the person being interviewed. In a traditional interview, the interviewer thinks, "I know what I want to find out, so I am setting the agenda for this interview." In a family-centered interview, the interviewer says, "I don't know much about this person's point of view, so I've got to encourage him/her to set the agenda."

A. Principles of Interviewing.

1. Goals. The goals of interviewing are to: (1) convey empathy and acceptance of the world as the family defines it, and (2) collect information necessary for generating intervention plans and strategies (Winton, 1988). It is not the goal of the interview to collect all types of information about the family, but rather, only that information that is necessary to provide appropriate assessment and intervention strategies for the child that are compatible with the family's resources, needs, beliefs, and values.

2. The "dos and don'ts" of interviewing. Good interviewing should not be intrusive. Good interviewing requires that we ask the right questions to the right people in the right ways. Who are the right people to interview? When working with a child with disabilities, one would certainly want to interview the parents, but there may be others who play a significant role in the child's life who should also be interviewed. What are the right questions and how should they be asked? We must not ask the kinds of questions that Lucy in the Peanuts cartoon is prone to asking. She and Linus are sitting on the couch and she asks, "Tonight is Halloween...How come you're not sitting out in a pumpkin patch waiting for the Great Pumpkin and making a total and complete fool of yourself?" Linus responds, "You have such a nice way of wording things." Lucy, pleased with her question, says, "Thank you. I work them out on little slips of paper beforehand."

When we think of interviewing, we generally think of asking questions, yet
the interviewer should do more listening than asking. Lucy is no better at listening than she is at asking questions. Charlie Brown explains to her, “In a good conversation, one person talks while the other person listens, then that person talks while the first person listens.” Lucy announces, “I like talking. I hate listening.” Charlie sighs, “I realize that.” to which Lucy responds, “What?”

B. Components of the Interview: The Cash-Stewart Interview Model

A good interviewer must understand the many dimensions of the interview process. These dimensions are greatly influenced by culture. Figure 2 shows the Cash-Stewart interview model (Stewart & Cash 1988).

1. The roles of the people involved. The two overlapping circles represent the two parties involved in the interview. The overlap between the circles indicates that the two parties share some environmental influences and perhaps some values and beliefs, even though in many ways they are different. The small circles within the larger overlapping circles represent the roles played...
by the two parties. The R and E within these circles indicates that the roles of interviewer (R) and interviewee (E) should be reciprocal, e.g., both parties should have the opportunity to ask and answer questions in the interview — to function as interviewer and interviewee.

Some aspects of the roles of interviewer and interviewee are culturally determined, e.g., who has the privilege of asking and answering questions. Briggs (1986) reported that in his early experiences as an anthropologist in northern New Mexico, his interviews were unsuccessful because the people he sought to interview considered him too young for the role of interviewer. Until he was older, he did not have the right to ask the questions he was asking. In some Indian cultures, the grandparents, not the parents, must take the role of interviewee when discussing treatments for the child. In a city in the Southwest, two male staff members of an early intervention program were unsuccessful in frequent attempts to interview mothers recently arrived from Mexico about their children. After six months it was discovered that in their culture their husbands believed it was inappropriate for a male staff worker to talk with women alone.

2. Relationships between people. The overlapping circles also signify that each interview is a relationship with three underlying dimensions: inclusion, control, and affection.

a. Inclusion. Inclusion is the degree to which each person wants to be involved in the interview, the degree to which each party wants others included in the interview, and the person’s willingness and ability to be involved. A family may be looking forward to the interview, hoping to discover some resources to assist them, or they may wish to avoid the interview, thinking that the interviewer is coming to “check up on them” and report them to welfare or immigration agencies. Interviewers may also vary in the degree to which they want to be involved. The interviewer may dread the interview because he/she has already made four home visits today and has heard that the family is demanding, or the interviewer may look forward to the interview because he/she has previously had a positive experience with the family. One family may want extended family members present, and in another instance, a mother may not want the father present during the interview. Emotional and health issues may affect the degree to which a party can be involved in the interview. If participants are tired, sick or worried, they will not be able to involve themselves in the interview.

b. Control. Control refers to the degree of power the interviewer and interviewee have to determine the nature and outcome of the interview. Does the family have the right to refuse the interview? Who determines when, where, and how long the interview will be? If several people are participat-
ing in the interview, social customs or traditions may determine who takes control, e.g., who does the talking — mother, father, grandparents?

c. **Affection.** Affection refers to the degree of friendship that exists between the people in the interview situation. Do the parties like and trust each other?

### 3. Perceptions of people.

a. **Perceptions of the other.** The arrows labeled perceptions between the E/R circles symbolize that perceptions affect the way interviewers and interviewees respond to each other. Perceptions of each other may be based on appearance or beliefs and attitudes about a person’s gender, age, racial or ethnic background, speech patterns, etc. Perceptions can affect interaction. People may not trust someone who looks different than they; differences in communication patterns may result in miscommunication or misinterpretation. A parent of a child with disabilities reported that she could not accept the nurse assigned as her case manager because the nurse drove a motorcycle. A speech pathologist working with Pueblo Indian tribes reported that she was not accepted until she had her own child. Particular dialects or rates of speech of one party may be perceived as rude and uncaring by another party.

b. **Perceptions of self.** The perception arrows going to the large outer circle (that symbolizes situational variables) indicate that the parties’ perceptions of themselves are a result of physical, social and psychological perceptions derived from interactions with their environment. How the person feels about himself/herself affects the interview. Does the person feel confident in the interview situation? Does the person feel he/she has the answers to the questions being asked? A speech pathologist experienced with infants will feel confident interviewing a mother of a young infant. A teen-age mother who is living with her parents may feel she has nothing to contribute about her infant in the interview situation. Highly educated parents may feel comfortable challenging medical decisions, whereas parents with limited education may feel they do not have much information to offer the interviewer and that the doctors and therapists should make the program decisions.

### 4. Situational variables.

The situational variables, represented by the large outer circle, not only contribute to the parties’ perceptions of themselves, but to the perception of the interview itself. The situation in which the interview is conducted may bias the interview. Staff working with Hispanic families in New Mexico have reported that their best interviews occurred when they accepted the family’s invitation to sit in their kitchen and share food. Staff working with some
Indian groups report that they must not attempt to enter the homes. Instead, they drive up to the house and must sit in the car and wait for someone to come out of the house before leaving their car. The interviews may then be conducted standing by the car.

Some environments may be inappropriate for an interview because of feelings associated with the situation. It might appear that an interview could easily and conveniently be done when the parents bring the child for a clinic visit because the parents are in town and the interviewer (case manager) is saved a long trip to their home. Clinic days are, however, hectic, and finding a private space to talk may be difficult. In addition, the clinic reminds the family of previous negative experiences in the hospital, and their attention is directed to concerns about their child’s medical condition and what additional treatments may be needed. Consequently, they may not attend to questions that may be of importance to their child in other situations.

5. Communication interactions. Understanding the roles of the parties in the interviews, their perceptions of each other and themselves, and the situation are essential if one is to establish effective communicative interactions. These interactions may occur at three levels. The thickness of the communicative interaction arrows symbolizes which interactions are most common; the length of the arrows symbolizes the relational distance between the two parties.

a. Types of interactions. Level 1 communication is most common, but the parties are most distant. Level 1 questions are safe and non-threatening, and the answers are superficial, socially acceptable, and comfortable. This level may include factual information such as the child’s birthday, names and ages of other family members, the medical/therapy treatments the child has received, etc. Level 2 is more intimate and deals with specific behaviors unique to the family and child and their thoughts, feelings, and beliefs about these behaviors, i.e., “What are their concerns about their child? What do they like about the school program? How do the other children relate to the child with a disability?” Level 3 is highly intimate and may include information that is particularly personal or sensitive or that is not immediately and directly related to issues regarding the child. The interviewer should not need to reach the third level to address assessment and intervention issues. Traditional cultures may exclude outsiders from sharing intimate information and from knowing certain aspects of their culture. Attempts to push to Level 3 may result in the interview not getting past Level 1.

b. Getting beyond Level 1. To reach at least Level 2, the interviewer must make clear the purpose of the interview, and the interviewees should feel that they will receive some benefit from the interview process. Interviewers
must be interested and respectful of the information that is presented, even though they might disagree with it. For example, the parent may explain that the child's medical condition is due to the father's not properly killing a deer and that therapy cannot begin before the medicine man has conducted a healing ceremony. By listening and accepting the parents' view of this, the interviewer can come to understand how and why the family is handling the situation as they are and can develop a treatment program that meets with the needs and values of the family.

6. Feedback. Interviewers must give feedback during the interview, confirming that the message has gotten through, or denying reception of the message and readjusting their messages. The way feedback is given is culturally dependent. Mainstream professionals give eye contact and backchannel responses, (e.g., head nods, “uh huh,” “yes,” “I see”) as the respondent is talking. They are quick to question when something is unclear. Some cultures avoid eye contact and vocalizations while another is talking and may use silence to convey both understanding and lack of understanding and may interpret clarification questions as intrusive and rude (Basso, 1970; Kochman, 1981; Tannen & Saville-Troike, 1985).

C. Communication in the Interview Process

A successful interview requires successful communication and successful communication requires more than speaking the same language. Taylor (1986) has proposed a model of communicative interaction (Figure 3).

Taylor noted that when two people meet and talk, they each bring with them their own sets of beliefs and assumptions about the world and the people and objects in it. They each have patterns of verbal and nonverbal communication, and they both have rules regarding how communicative interactions are to occur. Even two people speaking fluent English will not necessarily communicate effectively unless they share similar values, beliefs, and verbal and nonverbal communication patterns of interaction.

1. Cultural assumptions.

   a. Experiences affect our perceptions. Our experiences through our lives affect the way we perceive our environment. Eskimos reportedly perceive more variations in types of snow and ice. When the whales were trapped in the ice in Prudhoe Bay, Alaska, Eskimos were employed to assist in determining where equipment could go to cut holes in the ice because they could perceive variations in the ice that non-Eskimos could not. Initially all infants can perceive the same speech sounds, but gradually they come to be able to easily perceive only those sounds that are part of their native language. Psychologists have shown that we learn to interpret our perceptions in certain ways. People who live in square houses are much more affected by the following illusion (Figure 4) than those who do not live in box-shaped houses.

   Figure 4
Susceptibility to this illusion increases throughout childhood and adolescence and then decreases somewhat in adulthood for individuals raised in a carpentered world (Segall, Dasen, Berry, & Portinga, 1990). Western societies that are “highly carpentered” provide environments with many rectangular objects. Persons raised in a “carpentered world” unconsciously tend to perceive these figures as representations of three-dimensional objects, extended in space. If the line on the top were perceived as an edge of a box, it would be a front edge. If the line on the bottom were perceived as an edge of a box, it would be the back edge along the inside of the box. Hence, the top horizontal line would “have to be” shorter than the drawing makes it out to be (because it is closer), while the bottom horizontal line would “have to be” longer (because it is farther away).

b. Values/beliefs. Cultural assumptions will affect the way a family interprets their child’s disability. Even within a mainstream culture, the birth of a child with a disability may be interpreted in different ways — bad luck, a genetic mutation, a tragedy, a cross to bear, a gift from God, an experience to be dealt with, fate. Beliefs about the roles of children within the family and values for the future will affect parents’ response to a child with disabilities and what they may wish to focus on in the interview. Values and beliefs also determine what they may wish a child to learn or not learn.

2. Verbal behaviors include the language that is spoken, the dialect spoken, prosody (tone or accents on syllables), intonation (use of pitch and loudness to convey meaning), and speech acts (reasons for speaking). Miscommunication can occur because of the dialect spoken. In New York, asking for a soda will get you a Coke or Pepsi; in western Pennsylvania it will get you an ice cream float. In Texas you will get a bowl of beans and hamburger when you order chili, but in New Mexico you will get a bowl of potatoes and green chile peppers. Some cultures use a rising intonation at the end of questions; others use a falling intonation (Brown & Yule, 1983). If you are used to a rising intonation, a falling intonation will sound rude. Some languages are tonal (i.e., Navajo and some Asian languages) and do not vary prosody over a sentence, because to do so would affect word meaning. Speakers of tonal language often carry over this “flat intonation” into English. English speakers frequently use prosody to convey meaning — particularly affective meaning. For people who use prosody to convey meaning, lack of prosody may make interpreting the message difficult, and the speaker may be viewed as having no affective response about the topic.

3. Non-verbal behaviors include eye contact, body language, and how close people stand to one another.

Cultures vary in how eye-contact is used. In some cultures you look at the
person when you are being reprimanded, in other cultures you are to look away. In some cultures the listener must look at the speaker, but the speaker need not look at the listeners; while in other cultures the speaker must look at the listeners but the listeners need not look at the speaker (Kochman, 1981). When the rules for eye contact differ between speakers and listeners, parties in the conversation may view each other as rude, impolite, inconsiderate, uninterested, or aggressive.

Cultures vary in how close people stand to each other when speaking. In general, Latin Americans stand 18 inches or closer and North Americans stand 24 inches apart (Hall, 1959). If a person stands 18 inches or closer to a North American, he/she is likely to feel the person is being aggressive.

4. Rules of interaction include how you take turns, how to interrupt, how to use silence, etc. When taking turns, we generally wait for a pause in the conversation. The length of the pause varies considerably across cultures and regions of the country (Tannen, 1984). Pauses between utterances tend to be shorter on the east coast than in the midwest and west. A westerner speaking with an easterner finds it difficult to get into the conversation. The easterner may think the westerner has nothing to say, or is not very bright, because he/she does not contribute to the conversation. The westerner may think the easterner is overpowering and uninterested in others because he/she cannot get a word in.

Mainstream culture is uncomfortable with silence. Getting to know people involves talking with them — asking questions — “what’s your name, are you married, any children, where do you work,” etc. Such question asking is perceived as rude by some cultures. Direct question asking is uncommon in some Native American cultures. Getting to know a person in these cultures involves watching and listening, not asking questions (Basso, 1979).

The ways in which you join a conversation also vary across cultures. In some cultures you are to interrupt when you have something to say; in other cultures you are to wait until the first person in finished. For the first culture, interrupting shows you are listening and are interested in the topic. For the second culture, interrupting is perceived as rude. Yet, if one waits for one’s turn and doesn’t interrupt, the point may no longer be relevant (Kochman, 1981).
VI. Conclusion

If we are to provide family-centered early intervention, we must understand the values of the families we serve. Florene Poyadue, the mother of son with Down Syndrome and the founder and director of Parents Reaching Parents, wrote a poem that reflects the necessity of taking a family-centered, culturally-sensitive perspective:

Don't put the other fellow in your shoes — wear his. Tis true, "If I were you" I could use the logic that you espouse to solve my problem. But, since I am me, we must find a solution that fits well into the scheme of my mold. We must cloak the solutions of my problems in garments wrinkled by my needs and desires, otherwise what you are saying to me is not, "If I were you," but "If you were me," and since I am not, your answers help me little (Poyadue, 1979).
THE PERFORMANCE COMPETENCE MODEL
A Narrative Discussion
By Meave Stevens Dominguez, Ph.D.

The Performance Competence Model is not new information or knowledge to be memorized. Rather it is a re-ordering of known information into a holistic picture that provides a reference for understanding a larger body of information. The model was developed to present "shared windows," critical factors that facilitate and inhibit a child's performance and competence. Philosophically, the model promotes a holistic view of the child within the context of the child's personal characteristics, preferences, environments, family, and culture. It provides a structure for team members from a variety of disciplines to understand and interpret key issues and plan appropriate supports and interventions.

The strength of the model (as in all models) lies in its applicability to all persons, with or without developmental delays and/or disabilities. If we use the analogy of a person (or child) being like a large mansion full of windows, then specific disciplines (i.e., health, education, occupational therapists, physical therapist, family, speech and language therapists) see through certain windows with special clarity (related to their disciplines). We are dependent on these individual disciplines for specific knowledge that they gain from their particular windows. There are other windows through which all disciplines can see with some clarity. These are common windows of knowledge that allow a shared view of critical factors that affect a child's (or person's) performance and competence. Disciplines discuss and share knowledge by referring to these common windows or areas to promote a fuller understanding of the child.

Before discussing the various areas within the model, the definitions of the words "performance" and "competence" are presented as used within this model. The developers of the model are aware of the many subtle differences across fields of both the definitions and connotations for the terms "performance" and "competence."

PERFORMANCE: The way or manner in which one acts, or is able to express oneself or respond, given different situations and requirements.

PERSONAL COMPETENCE: Performing in a way or manner that one (as an individual) feels good about.

SPECIFIC COMPETENCE: The ability to perform a task or activity in a way that meets some specific standards.
It is helpful in learning to use the model as a frame of reference for interdisciplinary work, to look first at the broad areas on the model. These broad areas are depicted in Figure 1. The areas are discussed beginning at the bottom of the figure and moving up. This bottom-up presentation reflects the method used to present the model to training participants. It is also similar to the sequence that children follow during development. In practice, the model is circular, expanding (responses to disequilibrium, stresses, illness) and contracting (equilibrium, adaptive response) as the person responds to events. Positive or negative impacts (as perceived differently by each person) may hit initially at one point in the framework and then impact at multiple points. Some actual examples will be discussed later for clarity.

**GIVENS** represents information that we can count on or that is fairly consistent over time. Examples include culture, temperament, health issues (e.g., diabetes), and genetic disorders.

**UNDERLYING FACTORS** represents key factors operating within the central nervous system that underlie individual performance. All performance emerges as an adaptive response. Examples of this would include changes in breathing to accommodate oxygen levels, increased muscle tone to reach and grasp an object, weight shifts to ride a bicycle, writing down information in order to retain it. Each factor in this area plays a key role in making an efficient adaptive response. When looking at internal self-regulatory functions, it is easy to see that a person who has a fever and is nauseous would have difficulty maintaining arousal/alertness, might have reduced freedom and control of movement and subsequent difficulty with all factors underlying efficient adaptive responses. This same sequence could be applied to a child with Down Syndrome who has low muscle tone and frequently experiences respiratory difficulties.

**DEVELOPMENTAL LEARNING SEQUENCE** is the circular learning pattern that we follow to reach competence. We, as adults, have and have had innumerable sequences that resulted in a vast number of skills. Some of these represent sequences that led to competence, and with some sequences we never moved past the comfort/safety or confidence area. When we, as adults, enter a sequence that has not resulted in competence (e.g., approaching a group of unfamiliar people), we may attempt to replace it with another with which we feel competent (e.g., talking to one familiar person). In early learning, these sequences are especially vulnerable to the outcomes. Children who have cerebral palsy may frequently feel unsafe or uncomfortable when attempting motor tasks. A child with sensory defensiveness may not only feel uncomfortable or unsafe, but, when at-
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Figure 1. Broad Areas

- **WHAT WE THINK, FEEL AND DO**
- **ENVIRONMENT & CULTURE**
- **PERFORMANCE/COMPETENCE**

**LEARNING SEQUENCE**

**UNDERLYING FACTORS FOR PRODUCING an EFFICIENT ADAPTIVE RESPONSE**

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tempting to try new tasks (risk-taking), may have such negative experiences that she may be unwilling to attempt a particular task again (or any similar tasks).

WHAT WE THINK, FEEL, AND DO covers the areas that we typically address in standard types of assessment as well as areas we sometimes overlook or address with words like “poor self-image.” We look at physical (all body related), intellectual (cognitive, language, self-help, motor planning), emotional (feelings about self, world) and spiritual (overall sense of self, purpose and specialness). We are most familiar with these areas, given our training and available assessment tools. These areas are often where we first pick up information that something may not be going well for this child. It may be the first place that we begin to question and explore. The performance competence model provides pathways to other areas of exploration and meaning.

INDIVIDUAL ENVIRONMENT AND CULTURE is the area that addresses what is unique to the individual, including one's quality of life, membership, and a personal sense of competence. This area is the ultimate “yardstick” for determining if we are on the right track in looking at information to plan supports. The supports we plan should impact these areas positively, never negatively. As such, this area of the model becomes the place for looking at quality assurance. If we provide individual therapy to a young child during the time that the rest of the children are playing outdoor, we may reduce his opportunity for peer play (membership) and have an unhappy child (quality of life). If we try to get a child to engage in group manipulatives with requirements outside his range of ability, then we may have a child who feels bad about his performance (personal sense of competence). If we design a language stimulation program for a young Navajo child that encourages language use frowned on by her culture, then we may produce threats to all areas (quality of life, membership, and a personal sense of competence).

SPECIFIC FACTORS WITHIN EACH OF THE BROAD AREAS

Figure 2 depicts the full Performance Competence Model. The specific factors within each of the broad areas are identified. The straight and curved lines with arrows are meant to depict the constant interaction possibilities among all areas and all factors within the model. The following list provides examples for each of the factors within the broader areas. This list is followed by some “people” examples to illustrate both the individual factors and the possible interactions. It is important to remember that there are no “right” answers to the scenarios resulting from a particular event (or combination of events) as each person is unique in both how she experiences the world (internal and external) and how she responds. It is our goal to “see” as clear a picture as possible in order to support positive performance and competence for each individual.
Figure 2. Full Performance Competence Model

- PHYSICAL
- INTELLECTUAL
- EMOTIONAL
- SPIRITUAL

- QUALITY OF LIFE
- MEMBERSHIP
- PERSONAL SENSE OF COMPETENCE

EFFICIENT ADAPTIVE RESPONSE
Integration of multiple sensory input
Attention (or selective attention)
Discrimination
Orientation to stimulus
Freedom and control of movement
Ability to achieve, change and maintain state of arousal
Purposive system (spark, curiosity, desire, persistence)
Internal self regulatory functions

Predispositions (temperament, culture, physiological status, genetics, styles)
Basic biological drives (Combine processes into an integrated system, Strive for equilibrium and, Fulfill developmental cycle)

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LIST OF FACTORS WITHIN BROAD AREAS OF MODEL WITH EXAMPLES

Basic Biological Drives (Ayres, 1979; Ayres, 1985; Noback & Demarest, 1981; Patten et al, 1989)
- The drive to integrate processes (i.e., suck/swallow/breathe, integration of sight and hearing)
- Internal drive (i.e., human drive for upright/interaction/exploration, for use of preprogrammed motor skills)
- Homeostasis (i.e., equilibrium re: sensory motor comfort, internal physiology)
- Preprogrammed motor skills

Predispositions (Thomas & Chess, 1977; Bates et al, 1988)
- Temperament - difficult & easy, may be related to sensory integration/processing
- Genetics & Culture - activity levels, language, interactive styles
- Physiological status - health, organic status/anomalies, irritability due to hypoglycemia, seizures
- Styles - social vs. object, visual/auditory/kinesthetic/participatory

Internal Self Regulatory Functions (Greenspan & Greenspan, 1985; Ashton, 1987; Als et al, 1982)
- Suck/swallow/breathe
- Sleep/wake
- Digestion/elimination
- Modulation
- Temperature
- Respiration
- Orientation to novel stimulation, fright-flight-fight

Purposive System (Granit, 1979)
- Spark, desire, persistence
- Desire to move
- Motivation, intent, “sparkle quotient”
- Drive for interaction
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Ability to achieve, maintain, change situation-appropriate arousal states (Williams & Shellenberger, 1992, 1994; Wilbarger & Wilbarger, 1991; Trott et al, 1993)
- Sensory motor diet
- Time
- Fluctuation
- Predictability
- Novelty
- Repetition/practice

Freedom and control of movement (Ayres, 1979; Gilfoyle & Grady, 1990; Oetter et al, 1993; Mears & Harlow, 1975; Kramer & Hinojosa, 1993)
- Body awareness
- Knowledge of body functions
- Motor control
- Sensitivity to movement
- Range of motion
- Motor support

Orientation to stimulus (Luria, 1973; Als, 1983)
- Too little or too much sensory reactivity
- Purpose
- Habituation
- Ability
- Recognition
- Use

Discrimination (Ayres, 1979; Salapatek & Cohen, 1987; Eilers & Gavin, 1980)
- Sensory response of protection/discrimination for use; dangerous/safe; OK/Not OK
- Attaching meaning to input
- Making use of discriminatory abilities

Attention (Trott et al, 1993; Luria, 1973; Williams & Shellenberger, 1992)
- Arousal
- Monitor/vigilant/sustained

Integration of multiple sensory input (Ayres, 1985; Fisher et al, 1991)
- Sensory Integration (integration of information from touch, movement and gravity, taste, smell, vision, hearing)
- Pairing of sensory input
- Using one system to drive another
- Praxis
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Efficient adaptive response (Gilfoyle & Grady, 1990; Oetter et al, 1993)
- Personal definition of efficient and adaptive (a response that works for the individual)
- Using information to plan, implement, and monitor responses

Learning sequence (Oetter et al, 1993; Pearce, 1977)
- Comfort/safety - sensory needs/experience/personal definition of comfort/safety, past experience
- Confidence - self esteem, stability of system, experience of success
- Risk taking - "stretch" of abilities, results from confidence
- Competence - personal definition and others'

What we think, feel & do
- Spiritual - sense of self, impact on universe, personal mission, values, beliefs
- Emotional - feelings about self, world, and self in world
- Intellectual - cognitive foundations for purpose ("smarts")
- Physical - all body related = physical characteristics (illness, bruises, abuse), size & shape (morphology), strength, gender

Environment and Culture
- Quality of life - happiness, health, comfort and safety
- Membership - (family, community, society) positive interactions, participation
- Personal sense of competence - control issues, performance issues

Additional references available upon request. Contact Marci Laurel at the Training & Technical Assistance Unit, (505) 272-3000.
APPLYING THE PERFORMANCE COMPETENCE MODEL

There are several ways to use the discussion examples provided below from the lives of Sarah and Jesse. You can: 1) read the first paragraph and go to Figure 2 and explore what factors are interacting to affect performance and competence; or 2) you can read the entire example and refer to Figure 2 as you do so. Find each factor on the chart and look at its position and how it relates to other factors. Keep in mind that the information provided here only partially explores the implications presented for both Sarah and Jesse.

Discussion Example #1

Sarah is in the tenth grade. During the first six months of school she has grown 6 inches. Her grades (As and Bs) have dropped drastically. She feels uncomfortable, tired, irritable, and fearful. She doesn’t know what is going on and her teachers are complaining. Her family has rallied to support her, as many of them (all very tall people), experienced the same rapid growth in their developing years.

It may well be that the first information that led to questioning how things were going for Sarah came from the observable area of intellectual functioning (academic performance). Her grades had dropped and the teachers were concerned. Since her academic performance had always been fine, we look to the other areas of observable performance - physical, emotional and spiritual - and we talk to Sarah and her family. We hope that they have noted the surge in growth. All of the information we find would lead us into underlying factors: we would look at how sudden, rapid growth affects factors like internal self regulatory functions, purposive system, ability to achieve, change, and maintain appropriate states of arousal. We see that all of these areas are affected and we then realize there are likely effects in attention and integration of multiple sensory input. All of these, in turn, will then affect the learning cycle. Sarah is feeling uncomfortable (maybe unsafe). She feels a lack of confidence and probably has reduced her risk-taking (new learning). A feed-forward; feed-back loop is being created, where the developmental learning sequence is not working effectively, resulting in poor academic performance; the poor performance results in lack of confidence, which then feeds back into the developmental learning sequence. This is further complicated by disturbances in the underlying factors that support performance.

Sarah is also experiencing a decrease in her quality of life and personal sense of competence. Fortunately, her family (membership, quality of life) has rallied to support her. They have shared their own experiences and have let her
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know this time will pass. It is their support that finally helps Sarah recover from this major event, and (after growth has stabilized) re-establish her successful learning sequences and maintain her emotional and spiritual self. This information also helped Sarah's teachers understand her performance difficulties, so that they could provide support, concentrating on Sarah's positive attributes and her quality of life, membership, and personal sense of competence. The school personnel rearranged her schedule so that the more difficult subjects were in the morning. They scheduled PE right after lunch time so that she would have a chance to re-charge, and they worked to provide support, following Sarah's lead.

Discussion Example # 2

Jesse is 18 months old. At 8 months he suffered a life threatening case of meningitis, followed by seizures. He now has serious motor difficulties, and his motor abilities are at approximately the four-month level. He has some difficulty gaining weight and may lose weight during the winter months because of respiratory illness. He eats soft foods and drinks from a bottle. It takes a long time to feed him. He likes music and movement, recognizes family members and tries to look at them as they move around the room, making noises to indicate anger, annoyance, pleasure, and need for attention. He tries to reach and play with toys using his right hand when he is lying on his left side. When held in a supported position, he holds and plays with toys. He laughs at his parents' "teasing" play and loves to roughhouse with his father. He is very alert for most hours of the day with one 2-hour nap around 1:00 PM. His mother describes him as a happy and easy child. His parents are very worried about his not being able to play or express himself.

While issues are immediately observable in the physical and intellectual areas, it is the quality of life, membership, and personal sense of competence factors that appear to be most critical to his family. There is a discrepancy between his motor abilities and his intellectual abilities. The effect of this gap is a decrease in his quality of life, membership, and personal sense of competence. This broad area is the "yardstick" for looking at our interventions; and, in this case, this is the area where we want to focus our attention. If we look at the underlying factors, we see some immediate concerns and several powerful strengths. His strengths are his purposive system and his ability to maintain a situation-appropriate level of arousal. Serious concerns exist in the areas of freedom and control of movement, orientation to stimulus, attention(selective), and integration of multiple sensory input.
These areas, particularly freedom and control of movement, are interfering with his ability to make efficient adaptive responses and move through the developmental learning sequence. He is frustrated in his efforts to show his understanding of the world (intellectual) and to interact with the world (physical, emotional, intellectual, membership, personal sense of competence and quality of life). Some of the issues that we need to deal with are his respiratory system, weight gain, and freedom and control of movement. Increased independent movement patterns should have positive effects on respiration and weight gain, as well as on the other areas of concern. The early intervention team needs to provide intense OT/PT services aimed at increasing strength, functional movement, and movement transitions. At the same time, adults need to learn options for positioning and handling to assist Jesse in his interactions. Adaptive devices (switches on toys, chair for feeding) should be explored. Most importantly, efforts should be focused on: 1) improving Jesse's opportunities for membership, both with other children and in family activities; 2) increasing his personal sense of competence by giving him more control over movement, choices, and activities, and 3) a higher quality of life through improved health.

The issues for Jesse are many (communication, motor, play, etc.), and the discussion could go on at great length. What is important to realize is that in many programming discussions, planning for Jesse might have resulted in professionals developing several specific goals in the areas of gross and fine motor, speech, language development, and oral motor functioning (eating). Through shared windows and a common framework, intervention is focused on how to improve his quality of life, membership, and personal sense of competence. While we work on motor development and other areas, we will be using (with Jesse's help) these areas (quality of life, membership, and a personal sense of competence) to assess the effectiveness of our efforts.
INTRODUCTORY MODULE

REFERENCES


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APPENDIX A

Game Cards
Likes loud children's music, and rock & roll

2 year, 4 month old Male (Josh)

Older brother 4 years old

Loves to play with big brother

Loves books

Nonverbal communication (face, body) improves with activity

Looks to others for clues

Parents don’t pressure him to talk, but reinforce all attempts to communicate

Likes loud children's music, and rock & roll

Laughs appropriately

Parents are white middle class

After initial caution, connects with new people easily

Imitates behavior

Loves water

Loves to play with big brother

Seems very bright

Can be very engaging

Imitates behavior

Very responsive to motor and play schemes initiated by others

Very responsive when someone else initiates communication

Looks to others for clues

Enjoys swings, climbing, jumping

Dad is a contractor

Dad is "just like him"

Dad is a contractor

Shows toy preferences

Can be very engaging

Understands what other people say to him

Enjoys simple humor and incongruities

Parents enjoy brothers' differences

Family is close and active together

Parents know how to help him do his best

Very responsive to motor and play schemes initiated by others

Motor planning improves with activity

Very responsive when someone else initiates communication

Parents know how to help him do his best

Parents enjoy brothers' differences

Family is close and active together

Older brother receiving speech and motor therapy

Josh - Positive (Green)
| Will sit in front of the TV for long periods of time to watch cartoons, children's shows and movies |
| Frequent gastrointestinal disturbance |
| Primarily uses single word utterances/vocabulary is limited |
| Therapies putting financial strain on the family |
| Parents concerned about scheduling more therapy |
| Difficulty expressing his needs/wants |
| Needs repetition of auditory input to respond |
| Chronic middle ear infections |
| In new or uncomfortable situations, tend to shut down |
| Low tone |
| Poor motor control for suck-swallow-breath |
| Difficulty getting ready for movement (poor central stability) |
| Poor respiratory control |
| Shuts down with overload or boredom |
| Rarely initiates communication |
| Decreased in and around midline skills |
| Difficulty organizing, planning and executing movement schemes (praxis) |
| Cautious about unfamiliar people and new activities |
| Flat facial affect |
| Poor registration for touch, movement, gravity, visual content, auditory |
| Takes long naps |
| Hard to wake |
| Limited repertoire of play schemes |
| Uses language primarily to respond to others |
| Sometimes hard to get to sleep |
| Diagnosis of language delay |
| Has limited self regulation strategies |
| Behind in motor skill development |
| Often low energy/easily overloads |

**Josh - Negative (Red)**
<table>
<thead>
<tr>
<th>Loves children’s music, light rock and classical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops his activity and turns when his name is called</td>
</tr>
<tr>
<td>Likes to know the rules and make sure everyone follows them</td>
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<tr>
<td>Anticipates events that he knows occur everyday (like his bath)</td>
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<tr>
<td>Likes bright color, toys with moving parts</td>
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<tr>
<td>Laughs appropriately</td>
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<tr>
<td>Has a wonderful sense of humor</td>
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<tr>
<td>Displays independent behavior</td>
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<tr>
<td>Needs &amp; expects rituals &amp; routines</td>
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<tr>
<td>Shows toy preferences</td>
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<tr>
<td>Demands social attention</td>
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<tr>
<td>Has a variety of oral self regulation strategies</td>
</tr>
<tr>
<td>Plays 30 minutes or more with toys that build, or have many small parts (legos, super heroes)</td>
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<tr>
<td>Aware of strange situations</td>
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<tr>
<td>Seeks heavy work play (climbing, jumping, etc.)</td>
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<tr>
<td>Ahead in motor skill development</td>
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<tr>
<td>Seeks lots of movement (swinging, spinning)</td>
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<tr>
<td>High energy</td>
</tr>
<tr>
<td>2 year, 4 month old Male (Jason)</td>
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<tr>
<td>Parents are white middle class</td>
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<tr>
<td>Dad is a contractor</td>
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<tr>
<td>Mom works part time in a department store</td>
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<tr>
<td>New baby sister (now 6 months old)</td>
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<tr>
<td>Extremely good memory for events and details</td>
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<tr>
<td>Likes rock &amp; roll music</td>
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<tr>
<td>Seems very bright</td>
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<tr>
<td>Very verbal and articulate</td>
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<tr>
<td>Can be charming</td>
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<tr>
<td>Social but can be bossy</td>
</tr>
<tr>
<td>Knows no fear about gross motor experiences</td>
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<tr>
<td>Very creative</td>
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<tr>
<td>&quot;All Boy&quot;</td>
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Jason - Positive (Green)
<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holds chest up in prone-weight on forearms</td>
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<tr>
<td>Bears weight on hands in prone</td>
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<tr>
<td>Holds head in same plane as body when held in ventral suspension</td>
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<tr>
<td>Sits momentarily leaning on hands</td>
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<tr>
<td>Raises hips pushing with feet in supine</td>
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<tr>
<td>Bears large fraction of weight on legs and bounces</td>
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<tr>
<td>Bears some weight on legs</td>
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<tr>
<td>Extends both legs</td>
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<tr>
<td>Shows anxiety over separation from mother</td>
<td></td>
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<tr>
<td>Indwelling thumb no longer present</td>
<td></td>
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<tr>
<td>Grasps toy actively</td>
<td></td>
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<tr>
<td>Shows like/dislike for certain people, objects, places</td>
<td></td>
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<tr>
<td>Lets only mother meet his needs</td>
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<tr>
<td>Explores environment enthusiastically; Safety precautions important</td>
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<tr>
<td>Explores adult features</td>
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<tr>
<td>Swallow strained or pureed foods</td>
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<tr>
<td>Mouths and gums solid food</td>
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<tr>
<td>Inspects surroundings</td>
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<tr>
<td>Reacts to disappearance of slowly moving object</td>
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<tr>
<td>Continues a familiar activity by initiating movements involved</td>
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<tr>
<td>Localizes sound with eyes</td>
<td></td>
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<tr>
<td>Plays with own hands, feet, fingers, toes</td>
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<tr>
<td>Hand regard no longer present</td>
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<tr>
<td>Overcomes obstacle to obtain object</td>
<td></td>
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<tr>
<td>Cry varies in pitch, length and volume to indicate needs such as hunger, pain</td>
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<tr>
<td>Acts impulsively, unable to recognize rules</td>
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<tr>
<td>Attempts self-direction; resists adult control</td>
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<tr>
<td>Plays ball cooperatively</td>
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<tr>
<td>Tends to be quite messy</td>
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<tr>
<td>Effectively expresses his needs/wants</td>
<td></td>
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<tr>
<td>Good imagination in developing some play schemes (good guys VS bad guys rescue missions)</td>
<td></td>
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<tr>
<td>Strong Vocabulary</td>
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</tbody>
</table>

Jason - Positive (Green)
Loves water

Likes to take things apart to see how they work

Will sit in front of the TV for long periods of time for cartoons, children's shows and movies

Dad is "just like him"
Family lives on a busy street with a small backyard

Very aggressive towards baby sister

Diagnosis of sensory defer.siveness

Mom is sleep deprived - getting up often with both children

Runs out into street or away from parents in mall or grocery store

Very bound to routine and predictability

Picky eater

In trouble constantly at his day care - abusive to other children

Impulsive

Hardly naps

Behavior problems escalated with the arrival of the new baby

Afraid of sounds like the vacuum cleaner, sirens, oven timer, blender

Many violent themes to his play

Limited repertoire of play schemes

"Manipulative"

Takes inappropriate risks

Very hard to get to sleep

Never liked to be cuddled

Hates having hair washed and nails cut

Uses language primarily to direct others/request

Doesn't follow directions

Colicky until 7 months of age (about the time he pulled to stand & started crawling)

Wakes frequently seems frightened

Hard to console

Easily upset & throws long temper tantrums

Babysitters are hard to keep

Inconsistent in speech sound production

Jason - Negative (Red)
| **4 month old Native American Male with a diagnosis of Down syndrome (no other anomalies)** | **Youngest of 5 children**  
2 boys (9 & 15)  
2 girls (11, 13) | **All family members adore him and believe he will “do just fine”** | **Parents are both in their 40’s** |
<table>
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<tbody>
<tr>
<td><strong>9 year old brother loves to play with him</strong></td>
<td><strong>Both girls help with caregiving and nurturing and enjoy it</strong></td>
<td><strong>Mother is full time homemaker</strong></td>
<td><strong>Dad is a rancher and available to be home when needed</strong></td>
</tr>
<tr>
<td><strong>Very supportive extended family which includes an older cousin with Down syndrome</strong></td>
<td><strong>Nice spontaneous use of limbs on back and stomach</strong></td>
<td><strong>Visually alert and follows people and objects well</strong></td>
<td><strong>Brings hands to mouth</strong></td>
</tr>
<tr>
<td><strong>Sometimes responds to familiar voices and sounds</strong></td>
<td><strong>Responsive to communication from family members</strong></td>
<td><strong>Happy and social</strong></td>
<td><strong>Smiling and cooing</strong></td>
</tr>
<tr>
<td><strong>Loves gentle roughhousing, bouncing, and swinging</strong></td>
<td><strong>Beginning to laugh spontaneously</strong></td>
<td><strong>Has different cries to express different needs</strong></td>
<td><strong>Anticipates events that he knows occur everyday (like his bath)</strong></td>
</tr>
<tr>
<td><strong>Moves body to indicate he wants an activity to begin or be repeated</strong></td>
<td><strong>Mother has learned ways to help him eat more easily</strong></td>
<td><strong>Eating well on bottle with slightly enlarged nipple hole</strong></td>
<td><strong>Turns head toward a sound or to look at an object on either side of him</strong></td>
</tr>
<tr>
<td><strong>Lifts head in prone</strong></td>
<td><strong>Likes bath and toweling</strong></td>
<td><strong>Lifts legs slightly above the mat and kicks them</strong></td>
<td><strong>Brings his hands to his mouth and bends and straightens arms &amp; legs playfully while in this position</strong></td>
</tr>
<tr>
<td><strong>When supported in sitting, can raise head to look at what is in front of him</strong></td>
<td><strong>Likes to be in constant sight &amp; hearing of adults and siblings</strong></td>
<td><strong>Demands social attention</strong></td>
<td><strong>Stays awake when other people are around him and/or interacting with him</strong></td>
</tr>
</tbody>
</table>

**Joey - Positive (Green)**
<table>
<thead>
<tr>
<th>Uses pacifier</th>
<th>Very attentive to people</th>
<th>Some eye contact during feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Joey - Positive (Green)
<table>
<thead>
<tr>
<th>Overall motor function at 2 month level</th>
<th>Unable to keep head in midline in supine</th>
<th>Unable to support on forearms</th>
<th>Head still bobbing in upright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head/neck hyperextended when held in upright</td>
<td>Frog legged position in supine and prone</td>
<td>Hypermobile joints</td>
<td>Not consistently turning head to sounds</td>
</tr>
<tr>
<td>Had a very difficult time learning to feed from breast - had to switch to bottle with enlarged nipple hole</td>
<td>Poor strength and grading of suck/swallow/breathe synchrony</td>
<td>Soft voice &amp; raspy cry</td>
<td>Recent ear infection with a cold (seems chronically mildly congested)</td>
</tr>
<tr>
<td>Sometimes have to wake to feed</td>
<td>Low muscle tone</td>
<td>Sleeps most of the day when others are not around</td>
<td>Difficulty organizing binocular vision (Eyes wander or one veers off when he's trying to focus)</td>
</tr>
<tr>
<td>Hands are open most of the time but isolation of finger movement is unavailable to him</td>
<td>Seems very lethargic most of the time</td>
<td>Does not like textures in baby cereal &amp; fruit</td>
<td>Diagnosis of Down syndrome (no other anomalies)</td>
</tr>
<tr>
<td>Lack of eye contact except during feeding</td>
<td>Decreased facial expression</td>
<td>Low muscle tone face and mouth</td>
<td></td>
</tr>
</tbody>
</table>

Joey - Negative (Red)
<table>
<thead>
<tr>
<th>Rosa and mom live with the very supportive &amp; loving grandparents</th>
<th>Medicaid, have applied for DD waiver, CMS actively involved with family</th>
<th>Mom taking classes at local community college to finish her GED</th>
<th>Hearing normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can roll from stomach to back</td>
<td>Can sometimes reach and grasp an object from a prone on elbows position</td>
<td>Can sometimes weight shift at shoulders in prone on elbows position</td>
<td>Can consistently reach and grasp objects in supported sitting</td>
</tr>
<tr>
<td>Vocalizes to caregiver when being talked or sung to</td>
<td>Loves music</td>
<td>Likes being held close and bounced (Loosens up during these kinds of activities)</td>
<td>Has limited repertoire of sounds and movements to communicate needs but uses them</td>
</tr>
<tr>
<td>Grandparents willing to take Rosa to any appointments if mom is unavailable</td>
<td>Grandmother is primary caregiver during weekdays</td>
<td>Mom and grandparents get along well and agree on parenting strategies</td>
<td>Likes being in the car (often used when she is fussy)</td>
</tr>
<tr>
<td>Likes going places (the busier and noisier the better)</td>
<td>Varies volume and pitch to communicate needs</td>
<td>Long attention span for things that interest her</td>
<td>Loves books and music</td>
</tr>
<tr>
<td>Enjoys one to one interaction with mother and grandparents</td>
<td>Likes watching and interacting with other children</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rosa - Positive (Green)
<table>
<thead>
<tr>
<th>16 month old female</th>
<th>28 week gestation at birth</th>
<th>Diagnosis of spastic quadraplegic cerebral palsy</th>
<th>Mom is 15 and a single parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paucity of movement</td>
<td>Stereotypic movements</td>
<td>Hip limited in abduction</td>
<td>Possible subluxation/dislocation of hips</td>
</tr>
<tr>
<td>Wakes 5-6 times during the night every night</td>
<td>Mom always gets up with Rosa during the night</td>
<td>Rosa shares a bedroom with mom</td>
<td>Strabismus - not using her vision well</td>
</tr>
<tr>
<td>Disordered suck/swallow/breathe</td>
<td>Feeding problems - gags frequently - bottle, spoon, and cup</td>
<td>eats pureed foods and calorie enriched formula</td>
<td>Fussy and irritable about being handled - especially by strangers</td>
</tr>
<tr>
<td>Highest motor age 4-6 months (disordered)</td>
<td>Spasticity/stiffness in limbs</td>
<td>Obligatory strong ATNR</td>
<td>Floppy neck &amp; trunk</td>
</tr>
<tr>
<td>Poor head control</td>
<td>Needs adaptive equipment for positioning, activity, feeding &amp; transporting</td>
<td>Unable to release object in either hand</td>
<td>Primarily produces vowel sounds</td>
</tr>
<tr>
<td>Short duration of sound productions</td>
<td>Weak and distorted nonverbal signals to indicate desire to interact</td>
<td>Limited concept development (related to decreased number and range of opportunities for interaction)</td>
<td>Facial expression don't match emotions</td>
</tr>
</tbody>
</table>
4 month old male with a diagnosis of prenatal drug exposure

Youngest of 5 adopted children
2 boys (9 & 15)
2 girls (11, 13)

Very attentive to people

Parents are both in their 40's

9 year old brother loves to play with him and seems to be able to calm him

Both girls help with caregiving and nurturing but find it hard because he's so fussy

Mother is full time homemaker

Dad is a rancher and available to be home when needed

Very supportive extended family

Nice spontaneous use of limbs when in vertical position

Visually alert and follows people and objects well

Brings hands to mouth for sucking on fingers and thumb

Responds to familiar voices and sounds

Sometimes responsive to communication from family members

Sometimes uses fingers, thumb, or pacifier to calm

Beginning smiling and cooing at times

Sometimes loves roughhousing, bouncing, and swinging

Beginning to laugh spontaneously

Has different cries to express different needs

Anticipates events that he knows occur everyday (like his bath)

Moves body to indicate he wants an activity to begin or be repeated

Mother has learned ways to help him eat more easily

Eating better on bottle with slightly enlarged nipple hole

Turns head toward a sound or to look at an object on either side of him

Lifts head & upper body in prone

Some eye contact during the day (activity & noise around)

Lifts legs above the mat and kicks them in supine & prone

In supine brings his hands to his mouth and bends and straightens arms & legs while in this position

When supported in sitting, can look at what is in from of him and reach towards objects

Likes to be in constant sight & hearing of adults and siblings

Demands social attention

Likes to be swaddled (arms out) or held tightly (face forward)

Tim - Positive (Green)
<table>
<thead>
<tr>
<th>Behavior</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some eye contact during feeding</td>
<td>Calms sometimes to deep massage, bouncing (when held tightly in vertical position), rocking, sucking</td>
<td>Parents are dealing with frustration &amp; anger about the baby being so &quot;difficult&quot;</td>
</tr>
<tr>
<td>Very attentive to people</td>
<td>Sleeps best during the day (activity &amp; noise around)</td>
<td>Parents are dealing with conflict about different ways of playing with and calming baby</td>
</tr>
<tr>
<td>Uses pacifier</td>
<td>Soft rock &amp; some DJ talk from radio seem to help night sleep patterns</td>
<td>Parents are concerned about pending adoption - will there be ongoing problems?</td>
</tr>
</tbody>
</table>

**Tim - Positive (Green)**
Loose stools

Head/neck hyperextended when held in upright

Had a very difficult time learning to feed

Doesn't eat much per feeding, wants to be fed every 2-3 hours

Hands fisted most of the time

Lack of eye contact except during feeding

Hates being left in prone (on tummy)

Naps 10 minutes at a time throughout day

Vomits frequently after feeding

Short shallow breathing patterns

Hard to get him to begin feeding even when he's hungry

Seems overalert, moves, restless constantly

Does not like textures in baby cereal & fruit

Screams throughout bath time

Screams 8-10 hours of 24

Takes a long time to feed

Seems to have too much extension (stiffens often)

Soft voice & raspy cry

Low muscle tone face and mouth

Arches, pushes away when held face forward

Screams 8-10 hours of 24

Doesn't often like to snuggle or be cuddled

Has been considered to be "colicy" baby

Prolonged screaming and vomiting have resulted in several middle of the night E. R. visits

High arched palate

Not growing normally (height & weight)

Very difficult to calm often inconsolable

Tim - Negative (Red)
APPENDIX B

Sample Training Agenda
<table>
<thead>
<tr>
<th>OT/PT</th>
<th>FAMILIES</th>
<th>SLP</th>
<th>HEALTH CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Pathways to Teaming</td>
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</tr>
<tr>
<td>A. Families</td>
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</tr>
<tr>
<td>1. reasons to collaborate</td>
<td>1. reasons to collaborate</td>
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<td>1. reasons to collaborate</td>
</tr>
<tr>
<td>2. what OT/PTs need from families</td>
<td>2. what OT/PTs need from families</td>
<td>2. what SLPs need</td>
<td>2. what HCPs need</td>
</tr>
<tr>
<td>3. issues families should be alerted to</td>
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</tr>
<tr>
<td>4. related family issues</td>
<td>4. related family issues</td>
<td>4. related medical issues</td>
<td>4. related family issues</td>
</tr>
<tr>
<td>B. Health care professionals</td>
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<td>2. what OT/PTs need from HCPs</td>
<td>2. what SLPs need</td>
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<td>2. what HCPs need</td>
</tr>
<tr>
<td>3. what OT/PT wants HCPs alerted to</td>
<td>3. what SLPs want</td>
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<td>3. what HCP want OT/PTs alerted to</td>
</tr>
<tr>
<td>4. related medical issues</td>
<td>4. related medical issues</td>
<td>4. related medical issues</td>
<td>4. related sensory &amp; motor issues</td>
</tr>
<tr>
<td>C. SLPs</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>III. A Framework for early intervention (application of the Performance Competence Model to specific expert groups)</td>
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IV. TEAM ACTIVITIES