

# THE INFANT BEHAVIORAL ASSESSMENT AND INTERVENTION PROGRAM (IBAIP®)

## PROGRAM GUIDE®

An Education and Training Program for Early Intervention Professionals

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**IBAIP® Level I Training:** The Infant Behavioral Assessment®  
The Neurobehavioral Curriculum for Early Intervention®

- Neurobehavioral Facilitation Strategies®
- Holding Parents Holding Their Baby®

**IBAIP® Level II Training:** Training-the-Trainer

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**Outreach Projects for Children with Disabilities**  
**CFDA 84.324R**  
***The Infant Behavioral Assessment and Intervention Program<sup>®</sup> Outreach Project:***  
**Supporting the Neurobehavioral Organization and Development**  
**of Infants with Disabilities**

**ABSTRACT**

The Washington Research Institute will replicate and disseminate a validated, proven intervention model specifically designed to support the neurobehavioral organization and development of the growing numbers of infants, newborn to six months developmental age, who are born with very low/extremely low birth weight or disabilities and their families. In view of the dearth of curricula in early childhood special education that address the neurobehavioral needs of these infants, the **Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) Outreach Project** provides a unique and important contribution to current practice. This innovative model draws from state-of-the-art theory and research on early infant neurobehavioral organization and development as well as individualized, relationship-based, child-responsive intervention approaches.

The **Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) Outreach Project** is based upon a model developed and evaluated over a five-year period through a grant funded by the Early Education Program for Children with Disabilities. The efficacy of the model has been documented by research with infants born with very low/extremely low birth weight or disabilities. This new innovative intervention model will train home-, center-, and community-based early intervention professionals, paraprofessionals, and parents in supporting the neurobehavioral organization and development of these infants.

The overall goal of the **IBAIP<sup>®</sup> Outreach Project** is: To improve educational services to infants born with very low/extremely low birth weight or disabilities and their families by helping 13 new outreach sites (Years 1-3) to adopt and replicate this project through instruction in two levels of training. These include:

1. **IBAIP<sup>®</sup> Level I Training**: Training in the administration and implementation of the Infant Behavioral Assessment<sup>®</sup>, the Neurobehavioral Curriculum for Early Intervention<sup>®</sup>, and Holding Parents Holding Their Baby<sup>®</sup>.
2. **IBAIP<sup>®</sup> Level II Training**: Training Staff-Parent Trainers to promote the replication of the core constructs of this model beyond the outreach period.

The result will be the dissemination and replication of a comprehensive neurobehavioral assessment and intervention program that supports the neurophysiological integrity of infants born with very low/extremely low birth weight or disabilities. Parents will benefit through the facilitation and support offered by the training provided by our outreach project, thus assuring mutually satisfying parent-infant interactions and confidence in their ability to support the neurobehavioral and developmental needs of their infant. Early intervention professionals and paraprofessionals will benefit by learning to provide appropriate neurobehavioral facilitation to these fragile infants during an assessment, intervention, or care giving session. The **Infant Behavioral Assessment and Intervention Program<sup>®</sup> Outreach Project** is a unique outreach model which will disseminate and replicate a state-of-the-art neurobehavioral assessment/curriculum system to multi-state sites.

## INTRODUCTION

### Low Birth Weight, Incidence, and Sequella

Advances in neonatal intensive care technology and an increased understanding of neonatal patho-physiology has permitted many more premature low birth weight infants to survive and return home with their parents than ever before. Of the 3.9 million live births annually in the United States, approximately 1.3% are born with very low birth weight (1500g) (Guyer, Strobino, Ventura, MacDorman, & Martin, 1996) with a reported survival rate of 80-90% (Office of Technology, 1987). For infants born with extremely low birth weight (750g-1,000g), born 14-16 weeks to early, survival is now likely (>50%) (Als, 1999). The decrease in mortality rates, however, are associated with increased prevalence of children with poor long-term neurodevelopmental outcome related to low birth weight (Bennett, 1990). Serious disabilities associated with this population are: cerebral palsy, mental retardation, sensorineural hearing loss, and visual impairment, often in combination (Hack, Taylor, Klien, Eiben, Schatschneider, & Mercuri-Minich, 1994; Paneth, 1995). As with serious disabilities, the prevalence of mild disabilities (e.g., consistently lower intelligence quotients, attention deficit disorders, concentration difficulties, visual motor impairments, language comprehension, and speech problems) increases with decreasing birth weight and gestational age (Als, 1999; Hack, Taylor, Klein, & Mercuri-Minich, 1999; Sykes, Hoy, Bill, McClure, Halliday, & Reid, 1997; Waber, McCormick, & Workman-Daniels, 1992). Hunt, Cooper, and Tooley (1988, 1992) have found that 50% of children born with very low birth weight had mild disabilities at eight and eleven years of age and almost 11% had moderate to severe problems.

The incidence increases for infants with significant neonatal illness who come from homes of low parent education and poor social milieu. Hunt et al. (1988) reported that 81% of these children had some mild disability and approximately 55% had some form of moderate to severe disability. Escalona (1984) labeled these children as being at "double hazard" for poor developmental outcome, as a result of both biological and environmental interference. However, even in homes with high parent education, a significant neonatal illness takes a major long-term toll, with 81% of these infants showing at least mild problems and almost 10% showing moderate to severe problems (Escalona, 1984). Even medically low-risk preterm infants appear to show significant school performance deficits and have increased need for special education services (Als, 1999; Luciana, Lindeke, Georgieff, Mills, & Nelson, 1999; Shonkoff & Philips, 2000a).

### Neurobehavioral Characteristics of the Preterm Infant: An Overview

Many VLBW infants or infants born with disabilities are difficult babies during the newborn period and for months after arriving home (Gorski, 1984). Once discharged from the hospital newborn intensive care unit (NICU), these infants continue to lack a well organized central nervous system which results in: less control of sleep, arousal, alerting (Als, 1999; Shonkoff & Philips, 2000b); less attentiveness (Field, 1977; Goldberg, Brachfeld, & DiVitto, 1980); less game playing (Field, 1979a); less smiling and positive affect (Field, 1979b); greater fussiness and irritability (Elmer & Gregg, 1967); and are verbally inactive and avert their gaze during early social interactions (Brown, La Rossa,

Aylward, Davis, Rutherford, & Bakeman, 1980; Brown & Bakeman, 1979; Field, 1977, 1979b; Goldberg, Brachfield, & DeVitto, 1980). Because many of the VLBW infants diagnosed with disabilities, or those at-risk for such, lack the physiological control to respond to stimuli appropriately or predictably, their overall behavior is highly disorganized (Als, 1997a; Brazelton & Greenspan, 2000). They are often unable to effectively utilize self-regulatory strategies (i.e., self-coping/consoling behaviors) that normally support the typically developing infant to progress to higher developmental tasks (Brazelton, O'Brien, & Brandt, 1997; Greenspan & Wieder, 1998). These infants also fail to provide predictable, clear behavioral cues that assist parents to respond in a manner that will produce organized responses in their baby and support their infant's self-regulatory efforts and/or competence (Als, 1999; Brazelton & Greenspan, 2000; Bronson, 2000).

The long term implication of infant behavioral characteristics has been demonstrated in longitudinal studies that show the persistence of neurobehavioral disorganization in infants who are VLBW beyond early childhood (Als, 1997b, 1999; Bronson, 2000; Hunt et al., 1992; Lucianna et al., 1999). In observations of infants with disabilities, Kogan (1980) found aberrant parent-child interactions persisting into preschool age. Crawley and Spiker (1983) reported correlations between cognition and infants' social responsiveness, social initiation, and play maturity at two years of age.

### **Parental Response to the Infant**

Parents need help in learning how to cope with their infant's disorganized behaviors and lack of clear signals. While care givers are naturally imbued with a desire for reciprocal, responsive interactions and seem to be biologically programmed for normal newborn behavior (Als, 1992), these infants pose many problems. A substantial body of research suggests that parents of these infants show continuing anxiety and low confidence in their care giving competence, at least during the first year of their infants' lives (Crnic, Greenberg, Ragozin, Robinson, & Basham, 1983). Parents may be frustrated or feel tremendous guilt in response to the infant's disorganized behavior (Gorski, Davison, & Brazelton, 1979); may be frightened by the neurophysiological sensitivity of their infant (Als, Duffy, McAnulty, & Badian, 1988); may be hesitant to interact with their fragile baby (Minde, Whitelaw, Brown, & Fitzhardinge, 1983); or may experience emotional, physical, and financial stresses which place the disorganized infant at high risk for child abuse and neglect (Egeland & Sroufe, 1981; Frodi, Lamb, Leavitt, Donovan, Neff, & Sherry, 1978; Stern & Hildebrandt, 1984). Field (1983) observed that parents worked harder to generate smiles, attention, and contented vocalizations. However, the parents' efforts were often counterproductive and frequently elicited stress in their babies. Parents must learn to sublimate the natural tendency to "try harder" when the infant demonstrates a hypoactive or stress related response to their stimulation (Barnard, Bee, & Hammond, 1984; Field, 1979a). An infant's poor responsiveness, difficult temperament and diminished adaptability have been found to contribute to parental levels of stress (Beckman, 1983; Bendell, Goldberg, Urbano, Urbano, & Bauer, 1987), even more so than an altered rate of development (Als, 1999; Beckman, Thiele, Pokorni, & Balzer-Martin, 1986).

The impact of the infant's behaviors upon the parent, as well as the parent's sensitivity to reading the infant's cues, has received increasing attention in the literature. Research in the 1970s and 1980s revealed the central role of parents' responsiveness to infant signals in mediating infant cognitive and

linguistic development, as well as infant sociability (Ainsworth & Bell, 1974; Ainsworth, Bell, & Stayton, 1974; Bretherton & Walters, 1986; Cohen & Parmelee, 1983; Greenburg & Crnic, 1988; Tronick & Gianino, 1986). The formation of an enduring attachment relationship (Bowlby, 1969) between parent and infant appears to be directly affected by the mutual social regulation between each of the partners in the dyad. Pip and Harmon (1987) have further suggested that “the infant's sense of security may result from adequate homeostatic regulation within the care giving relationship, with the earliest form of "security of attachment" encoded physiologically in the experience of nondisruptive and need-satisfying regulation of neurobehavioral organization”(Lyons-Ruth & Zeanah, Jr, 1993, p. 20).

With the recognition of the critical role social interactions play in the development of the child as well as the impact that the infants' characteristics have on the care giver a new approach in supporting mutually satisfying parent-infant interactions is most desperately warranted. Parents often times need guided support to: 1) observe their infant and trust their own observations (Als, 1992), 2) recognize and interpret the often unpredictable behavioral cues expressed by their baby (Yoos, 1989), 3) provide the neurobehavioral support to their infant that is suggested by the expression of their baby's cues (Kraus, 1990; Vandell & Wilson, 1987), and 4) experience pride and joy in their infant while trusting their own importance and effectiveness in parenting their child (Als, 1997a/b).

### **Traditional Early Intervention Programs**

Infants who are born with very low birth weight, with a disability, or at-risk for failures in developmental outcome, require an array of intensive services throughout their first two years of life. There has been an explosion in the creation of "infant stimulation" programs offered via schools and community-based intervention programs (Guralnick, 1997). The past two decades have seen an increase in both the number of early intervention professionals involved and the number of programs aimed at optimizing developmental recovery during and following neonatal hospitalization and at preventing or ameliorating associated neurodevelopmental morbidities. (Als, 1997a).

Early intervention services, whether they be home-, center-, or community-based programs, continue to take a stimulus/environmental deprivation approach to intervention, helping the child to "catch up" by introducing him to various modes of sensory stimulation and instruction in age-appropriate developmental skills (Brooks-Gunn, Berlin, & Fuligni, 2000; Gomby, Culross, & Behrman, 1999). This “catch-up” approach is inappropriate or even harmful for these VLBW/disabled infants, as they are often not stabilized at a neurophysiological level that would allow them to effectively process the sensory input offered to them (Als, 1992; Gorski, 1984; Nurcombe, Howell, Rauh, Teti, Ruoff, & Brennan, 1984). "Stimulation that is too complex or intense or inappropriately timed in terms of infant state threshold, maturity, or physiologic status can be as harmful as lack of stimulation"(Blackburn, 1983,p.78). Efforts to stimulate these infants to compensate for developmental deficits or sensory impoverished environments may, in fact, cause over stimulation (Als, 1992,1997a) and force them into coping at the expense of their physiologic function and stability ( McCollum & Stayton, 1985; Gorski, Davison, & Brazelton, 1979). Obviously, infants must be provided with opportunities to engage in social/environmental interactions to continue their growth and development. These interactions, however, must be graded to each individual infant's neurophysiological and state organization as well as his self-regulatory efforts and competence (Als, 1997a/b; Brazelton & Greenspan, 2000; Hedlund, 1998).

Campbell (1991), as well as others (Guess et al., 1988) have described the general insensitivity of early interventionists to the biobehavioral state of children with disabilities. Campbell (1991) observed that early intervention professionals involved with classroom programming are often inattentive to the child's readiness for interaction. Further, when the child is presented with a developmental task, the effect is more often a response of disengagement or stress (e.g., turning away, arching) than of engagement or approach behaviors (e.g., looking to or reaching for the stimulus) (Hedlund, 1998). This in turn, leads to a program environment that does nothing to enhance the infant's feeling of competence, nor does it provide opportunities for the infant to positively experience his effects upon the environment and learn from these experiences (Als, 1997a, 1999; Shonkoff et al., 2000a; DeGangi, 1991).

## NEUROBEHAVIORAL ASSESSMENT AND INTERVENTION

### Rethinking Traditional Early Intervention

Early intervention professionals need additional training to support the infant's neuro-behavioral and physiological capacity within the context of developmental assessment and intervention. This means training early intervention professionals and paraprofessionals to learn to: 1) recognize and interpret the unpredictable behavioral cues expressed by these infants; 2) facilitate and validate parental perceptions of the behavioral cues of their infant; 3) present and modulate stimulation in response to the infant's physiologic status; 4) provide the infant with appropriate neurobehavioral support during an assessment, intervention, or care giving session; and 5) translate the infant's behavioral communication system into the development of a neurobehaviorally supportive assessment, intervention, and care giving plan (Hedlund, 1998; Hedlund & Notari-Syverson, 1997).

New assessment/intervention approaches for infants born with very low/extremely low birth weight or disabilities should incorporate the new directions in service content and delivery that have been called for by those who have been developing and studying direct services over the past years (Brazelton & Greenspan, 2000; Dunst & Trivett, 1996; Hofer, 1988, 1995; Gilkerson & Als, 1995; Neisworth, Bagnato, & Salvia, 1995). These researchers have refocused our attention upon:

**1. *A neurobehavioral perspective.*** This approach as advocated by Als (1997a/b, 1999), Lawhon (1997), Hedlund and Tatarka (1988), and Hedlund (1989, 1998) postulates that "the infant's behavior provides the best information base from which to be continuously attuned to the infant" (Als & Duffy, 1983, p.154). It is through the direct observation of the behavioral repertoire of an infant that we can infer: a) what goals the infant seeks to accomplish; b) what strategies are being employed by the infant to accomplish these goals; c) how effective these strategies are; and d) what supports might be useful to facilitate the infant's overall development and neurobehavioral organization. As Als states "support and neurobehavioral intervention cannot end when the infant is discharged from the hospital NICU, but must systematically link families and infants to sound models of community-based supports that build on the neurobehavioral care and intervention that was provided in the NICU." (1992, p. 353);

**2. *A brain-environment interaction perspective.*** The White House Conference on Early Childhood Development and Learning: What New Research on the Brain Tells us About Our Youngest Children (1997) has dramatically underscored the results of recent brain research. This research has demonstrated the critical role that early experience plays in the organization and growth of the evolving brain (Shore, 1997). Early interactions have a decisive impact on the architecture of the brain, the nature and extent of adult capacities, and directly effects the formation of dendritic-axonal interconnections (i.e., synapses) that develop over the course of the child's first three years of life (Chugani, 1997; Rakic, Bourgeois, & Goldman-Rakic, 1994). Support for infants with very low/extremely low birth weight or disabilities must combine knowledge of the evolving dynamic brain with



knowledge of neurobehavioral developmental progression (Als, 1997a, 1999; Duffy, Jones, McAnulty, & Albert, 1995);

**3. *A parent-infant interaction perspective.*** The formation of an enduring attachment relationship (Bowlby, 1969) between parent and infant appears to be directly affected by the mutual social regulation between partners in the dyad (Brazelton & Greenspan, 2000; Bretherton, 1991, Stern, 1995). Lyons-Ruth and Zeanah, Jr. (1993, p.20) state that “the infant’s sense of security may result from adequate homeostatic regulation within the care giving relationship, with the earliest form of “security of attachment” encoded physiologically in the experience of non-disruptive and need-satisfying neurobehavioral regulation of early states”;

**4. *A child-responsive intervention perspective.*** Infants are seen as continuously and actively self-constructing (Fischer & Rose, 1994). The task of assessment and intervention then becomes one of collaboration and child-direction (McLean & Odom, 1993). By accurately interpreting an infant’s behavior, one can construct an appropriate environment for assessment and intervention (Als, 1999; Campbell, 1991; Neisworth, Bagnato, & Salvia, 1995); and

**5. *A social-interactionist perspective (Vygotsky, 1930/1960/1978).*** The notion of dynamic assessment and intervention is based upon Vygotsky’s (1934/1986; 1978) conceptualization of the “zone of proximal development.” Through the process of dynamic assessment and intervention the task of the professional is to identify how the infant independently attempts to achieve mastery on a task, and how the infant’s performance can best be facilitated through the use of “scaffolding” techniques to support the self-regulatory efforts and competence of the child (Wood, Bruner, & Ross, 1976).

## **The Infant’s Behavioral Story**

Infants speak to us via the expression of approach, stress, and self-regulatory behaviors emanating from the four subsystems of communication (i.e., autonomic, motor, state, attention/interaction). The neurobehavioral approach as advocated by Als (1992, 1999), Lawhon (1986, 1997), and Hedlund and Tatarka (1988, 1991) views infants as participating as active collaborators in their own developmental agenda in a continuous relationship with those caring for them and the current environment which contains or holds them. Each infant has his own unique behavioral story to tell, a story that speaks directly to the needs, wants, and developmental agenda that he is striving toward (Als, 1986, 1992). Through direct observation of the behavioral expression of the infant and facilitation of his neurophysiological organization, early intervention professionals may better support the infant along his individual developmental trajectory (Als, 1997a, Hedlund, 1998).

## Goals of Neurobehavioral Intervention

The Newborn Individualized Developmental Care and Assessment Program (NIDCAP®) as developed by Als (1984, 1986) has served as the foundation from which the Infant Behavioral Assessment and Intervention Program® was conceived and developed. The NIDCAP® perspective has provided the theoretical base and training model that has guided the development of both the Infant Behavioral Assessment (Hedlund & Tatarka, 1988) and the Neurobehavioral Curriculum for Early Intervention (Hedlund, 1998).

Neurobehavioral intervention as advocated by Als (1997a/b, 1999) and our past and present work (Hedlund, 1998; Hedlund & Notari-Syverson, 1997; Hedlund & Tatarka, 1988) addresses the needs of growing numbers of infants, newborn through six months developmental age, who are born with very low birth weight or at risk for poor long-term neurodevelopmental outcomes. The main goals of this approach are to:

- 1. Support early intervention professionals to read and interpret the infant's behavioral story.** This is accomplished through training in the administration of the Infant Behavioral Assessment (IBA®). Through these clinical observations the infant's neurobehavioral organization and self-regulatory competence is evaluated. A decision can then be made with respect to the degree and quantity of neurobehavioral support that the infant is seeking (Vygotsky, 1930/1960/1978; 1934/1986).
- 2. Translate the infant's behavioral story into appropriate neurobehavioral and developmental facilitation** by selecting and implementing the neurobehavioral facilitation strategies that best support the infant during an assessment or intervention session (Hedlund, 1998). The strategies assist professionals to conduct developmental assessments and implement therapeutic, educational, and care giving intervention that supports the neurophysiological/state organizational system of the child. Through this process the infant is individually supported in his efforts to engage in, and be engaged by the environment, thus enhancing the child's growth and development.
- 3. Validate and support parental perceptions of their growing developing infant.** The approach offered in Holding Parents Holding Their Baby® (Hedlund & Notari-Syverson, 1997) significantly differs from the current "train the parent model" implemented in many traditional early intervention programs today. Drawing upon the work of Winnicott (1964/1987; 1965/1994; 1966/1987), the materials included in this manual reflect a philosophy guided by the recognition of, and a respect for, what comes naturally to parents as they love and care for their baby. It serves to support parents as they continue to explore ways to adjust and adapt themselves to the neurobehavioral organization and self-regulatory competence of their child.
- 4. Bring about a shift from a protocol-based approach (i.e., curriculum bound) to process thinking** (i.e., how to facilitate learning and social interaction), and from an agenda oriented perspective (i.e., mastery of developmental milestones) to relationship-based developmental intervention (Als & Gilkerson, 1997; Gilkerson & Als, 1995).

## INFANT BEHAVIORAL ASSESSMENT AND INTERVENTION PROGRAM (IBAIP®)

### Training Participants

Training in the Infant Behavioral Assessment and Intervention Program® is offered to special educators, physical and occupational therapists, communication disorder specialists, nurses, pediatricians, psychologists, social workers, and infant developmental specialists. These professionals first receive instruction in the administration of the Infant Behavioral Assessment® to ensure the successful implementation of the Neurobehavioral Curriculum for Early Intervention®. As the applications of the neurobehavioral strategies are based upon the clinical observational skills of the adult, it is imperative that training in all neurobehavioral components of the IBAIP® have been successfully completed.

In addition, clinical experience with newborns or young infants and knowledge of infant development and standardized testing is required. Training in the implementation of the neurobehavioral intervention/assessment strategies and related materials is best suited for clinicians who are already skilled in their own pediatric specialty and who are currently providing intervention services to: infants with disabilities; fragile medical conditions; or those infants at high risk for poor neurodevelopmental outcomes.

### Overview of the Training offered by the Infant Behavioral Assessment and Intervention Program®

The Infant Behavioral Assessment and Intervention Program® offers two levels of training. These include:

**IBAIP® Level I Training.** Training is offered to early interventionists in the administration and implementation of the following core components:

- 1. The Infant Behavioral Assessment (IBA®).** The IBA.® sensitizes early intervention professionals to the neurophysiological organization and self-regulatory competence of the infant. It provides a window upon the neurobehavioral repertoire of the infant and assists the professional to adjust his/her intervention style to more closely match the neurobehavioral and developmental needs of the child. Drawing upon the work of Als, Lester, Tronick, & Brazelton (1982), Als (1982, 1984, 1986), Brazelton (1984a/b), and Barnard (1978), Hedlund and Tatarka (1988) developed the IBA®. Als' (1986, 1992) Synactive Model of Newborn Behavioral Organization and Development served as the foundation for the development of the IBA®. Hedlund and Tatarka (1988) have further articulated this theoretical construct. The four subsystems (i.e., autonomic, motor, state, attention/interaction) as delineated by Als (1986), are seen as “avenues of communication,” from which three categories of behaviors have been identified: approach, self-regulatory, and stress. The expression of these behaviors reflect both the infant's response to sensory input and the integrity of the four subsystems.

The IBA<sup>®</sup> is a time sampling of 113 communicative behaviors. The behaviors are categorized according to the four subsystems: 26 autonomic/visceral cues, 44 motor responses, 9 state categories, and 34 attention/interaction behaviors. These are organized along a continuum of responses from approach to stress. Each of the four subsystems is further divided into a total of 14 sub-categories.

The IBA<sup>®</sup> assists early intervention professionals to: 1) assess the infant's neurobehavioral organization and self-regulatory competence; 2) measure improvements in the infant's capacity to use self-regulatory strategies as a means to stabilize his neurophysiological functioning during assessment, intervention, care giving routines, and social interactions; 3) identify specific behavioral antecedents that may be responsible for the expression of stress behaviors; and 4) determine the degree and quantity of neurobehavioral strategies that would best support the infant's individual development. Training in the administration of the IBA<sup>®</sup> is addressed in the Trainee Responsibilities outline (Appendix A) and the IBAIP<sup>®</sup> Training Syllabus (Appendix B).

## **2. The Neurobehavioral Curriculum for Early Intervention (NCEI<sup>®</sup>)**

In view of the dearth of curricula in early childhood special education that address the neurobehavioral needs of infants, the NCEI<sup>®</sup> makes a unique and important contribution to current practice. This curriculum is based on four major theoretical perspectives: 1) the ecological model of human behavior which views the development of the infant within the broader familial and societal context as well as recognizing the importance of their inter-transactional nature across time (Bronfenbrenner, 1979, 1986; Sameroff, 1993; Sameroff & Fiese, 1990); 2) the parent-infant interactional model which recognizes the critical role social interactions play in the infant's development (Papousek & Papousek, 1987, 1992; Trevarthen, 1980; Tronick & Cohn, 1989); 3) the principle of dynamic assessment and intervention (Feurerstein, 1977; Lidz, 1983; Lidz, Bond, & Dissinger, 1991) that is founded upon Vygotsky's (1930/1960/1978; 1934/1986) conceptualization of the "zone of proximal development;" and 4) the Synactive Model of Newborn Behavioral Organization and Development which focuses upon the infant's intra organism subsystems and their continuous interaction with each other and the environment across time (Als, 1986, 1992, 1997a/b).

These theories provide a framework for the translation of these principles into supporting the neurobehavioral and self-regulatory competence of the infant. This new intervention model translates our past and present neurobehavioral research into meaningful intervention practices that optimize the development of infants with disabilities as well as supporting their families. The NCEI<sup>®</sup> provides specific neurobehavioral strategies for early intervention professionals to integrate into infant assessments/interventions and curricula that they may currently be using. The focus of the NCEI<sup>®</sup> is not "what to teach" (content curricula), but "how to teach," a process oriented approach. The capacity of the infant to learn requires an alert state, a graded presentation of stimuli, and a sensitivity to feedback signals indicating limits of tolerance (Papousek & Papousek, 1987, 1992). The NCEI<sup>®</sup> assists early intervention professionals to learn and implement specific neurobehavioral strategies that will facilitate these infant learning prerequisites.

The major components of the Neurobehavioral Curriculum for Early Intervention<sup>®</sup> include:

**a. Neurobehavioral Facilitation Strategies<sup>®</sup>.** These strategies were designed to assist early intervention professionals to support the neurobehavioral organization and self-regulatory competence of the infant during assessment, intervention, care giving routines, and social interactions. The strategies are divided into three sections and accompanying subsections:

**È Environmental Facilitation**

- È Ambient Visual Environment
- È Ambient Auditory Environment
- È Temperature within the Environment
- È Social Visual/Auditory Input

**È Handling and Positioning**

- È Supine: Upper/Lower Trunk and Extremities
- È Prone: Upper/Lower Trunk and Extremities
- È Sidelying
- È Cradled in Arms
- È Held at the Adult's Shoulder
- È Held Face-to-Face on the Adult's Lap

**È Cue-Matched Facilitation**

- È Hand to Mouth, Sucking, Mouthing
- È Bracing and Foot Clasp
- È Holding On
- È Hand To Midline, Hand on Stomach, Self-Clasp

The subsections are organized beginning with a description of the neurobehavioral organization and self-regulatory competence of the infant within the four subsystems. Suggested neurobehavioral strategies follow. These strategies have been classified into five levels of support: 1) Minimal, 2) Low, 3) Moderate, 4) High, and 5) Terminate the Interaction (i.e., the infant's threshold for sensory input has been exceeded). The level of support that is offered to the infant is assessed through the administration of the IBA<sup>®</sup>. This instrument analyzes the neurobehavioral organization and self-regulatory competence of the infant (i.e., Optimal, High, Moderate, Low, or Minimal Self-Regulatory Competence) and suggests what level of support may best facilitate the infant during an assessment, intervention, or care giving interaction. For example, the infant may, for the most part, appear to be well organized (i.e., High Self-Regulatory Competence) but may require a small amount of facilitation (i.e., Low Support) to maintain an Interactive Alert State.

**b. Holding Parents Holding Their Baby<sup>®</sup>.** As infants are discharged from hospital newborn intensive care units (NICUs), their parents are confronting the long-term implications of their child's special needs. Intervention offered these infants and their families must capitalize on family strengths to support parents to facilitate the neurobehavioral needs of their infants, create opportunities for parent-to-parent contact, focus intervention goals on parent-identified

needs, and facilitate and support the development of mutually satisfying parent-infant interactions.

The materials developed for this manual begin with an introductory overview of the “Transition to Parenthood.” This section includes a discussion of the past developmental history of each parent, their relationship, the evolving pregnancy, and finally the birth of the infant. “Reflections upon Winnicott” and “Facilitations: Talking with Parents,” follow as the next sections of this manual. The Reflections were developed to assist the professional to integrate and apply Winnicott’s (1964/1987; 1968/1987; 1970/1987) philosophical approach and tone in his/her work with families and their babies. The Facilitations are a collection of writings that serve to support parents as mothers and fathers to their baby. The remaining parent materials address neurobehavioral supports for parents to consider while caring for their child.

**IBAIP® Level II Training: Train-the-Trainers.** Training is offered to those individuals who have been certified in the administration and implementation of both the IBA® and the NCEI® (IBAIP® Level I Training).

Training is provided to prospective Trainers to promote the replication and dissemination of the core constructs of the Infant Behavioral Assessment and Intervention Program®. Prospective Trainers are instructed in:

**1. Teaching a one-day workshop to parents and paraprofessionals within their community.** This workshop consists of four Training Modules:

- a. The Developing Brain: A Work in Progress
- b. Infant Behaviors: A Communication System
- c. The Emotional World of the Infant
- d. On Becoming Parents: Being a Mother and Father

**2. The implementation of the Neurobehavioral Guide for Parents and Paraprofessionals®** (Hedlund, 1998). This guide supports parents as well as paraprofessionals toward a greater understanding of the “communication avenues” (i.e., autonomic, motor, state, attention/interaction subsystems) available to the infant and the behaviors emanating from them (i.e., approach, self-regulatory, and stress). The Neurobehavioral Guide for Parents and Paraprofessionals® assists parents and paraprofessionals to better support the neurobehavioral organization of infants during their day-to-day interactions with them.

Further information regarding IBAIP® Level II Training is provided upon request.

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## **Appendices**

- A. Trainee Responsibilities**
- B. Training Syllabus**
- C. Videotape Protocol**
- D. IBAIP<sup>®</sup>: Summary of Evaluation Findings**
- E. Required Readings**
- F. Additional Training Materials**

# **Appendix A**

## **Trainee Responsibilities**

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## INFANT BEHAVIORAL ASSESSMENT & INTERVENTION PROGRAM<sup>©</sup>

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### TRAINEE RESPONSIBILITIES

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**Trainer:** Rodd Hedlund, MEd

*All of the requirements listed below must be successfully completed, within the timelines provided, before certification may be granted to the Trainee.*

I. Preparation for Visit #1:	Time Commitment
A. Attend and participate in the Pre-Workshop Conference Call.	.5 hr.
B. Read all articles and training materials enclosed in the reading packet. Review:	25 hrs.
1. The IBA <sup>©</sup> and its Operational Definitions.	
2. The Infant Behavioral Assessment Training Manual <sup>©</sup> .	
3. The Neurobehavioral Curriculum for Early Intervention <sup>©</sup> .	
4. Holding Parents Holding Their Baby <sup>©</sup> .	
C. Complete the Training Registration Form (Appendix F).	
D. Complete the Pre-Training Test (Appendix F). This will be collected at the beginning of the workshop. All Trainees are required to achieve a score of at least 85%.	2 hrs.
E. Complete the Study Guide for <u>Babies and Their Mothers</u> (Appendix F).	2 hrs.
F. Prepare videotape (please see <b>Videotape Protocol</b> , Appendix C ).	2 hrs.
G. Complete the Consent for Photography/Dissemination forms <u>and</u> the Trainee/Subject Identification form (Appendix F) Two consent forms:	.5 hrs.
1. Parent/Infant Consent For Photography And Dissemination of Photographic Product.	
2. Interventionist Consent For Photography And Dissemination of Photographic Product.	

One consent form is signed by the parent of the child that you choose to videotape (Parent/Infant Consent form). The other consent form is signed by yourself (Interventionist Consent form). The white copy of each consent form will be collected at the beginning of the workshop. Please give the yellow copy from the Parent/Infant Consent form to the parent. The yellow copy from the Interventionist Consent form is for your own files. ***These consent forms must be completed before the videotaping is begun.***

	<b>Time</b>
<b>II Visit #1: Four Day Workshop</b>	
A. Attend the lecture on the Synactive Theory of Development: Morning/Afternoon session of Day #1.	4 hrs.
B. Participate in the Infant Behavioral Assessment and Intervention Program <sup>©</sup> Workshop: Afternoon session of Day #1 through the afternoon session of Day #4.	27 hrs.
C. Homework assignments as given during the IBAIP <sup>©</sup> Workshop.	2 hrs.

### **III. Assignments:**

The following assignments are completed in the Trainee's respective developmental setting after Visit #1.

- |   |         |
|---|---------|
| A. Ten inter-rater observations (actual or "real-time"). Each observation should also include written summaries and recommendations. The Trainee must attain an inter-rater agreement of at least 85% with another Trainee on 10 actual or "real-time" observations following the training. These 10 inter-rater observations should be conducted on: | 20 hrs. |
|---|---------|

1. Five typically developing infants;
2. Five atypical infants (DD, CP, or infants with drug/alcohol exposure).

The Trainee will send a copy of one IBA<sup>©</sup> observation and written summary to the Trainer prior to Visit #2. The Trainer will review and critique the write-up and return it to the Trainee.

- |  |         |
|--|---------|
| B. The Trainee must exhibit a thorough understanding of the neuro-behavioral concepts as demonstrated by the implementation of appropriate neurobehavioral strategies and parent materials. Specific outcomes include: | 25 hrs. |
|--|---------|
1. The Trainee conducts serial assessments/interventions with an infant and family that is currently receiving services from the Trainee.
  2. A Case Study is developed.
  3. Pre/post video tapes and critique are completed.

Please see the **Assessment and Intervention Protocol** in the IBA Training Manual<sup>©</sup> for further instructions.

**Time  
Commitment**

**IV. Visit #2: Three Day Certification Workshop**

**Day 1**

- |  |                         |
|--|-------------------------|
| <p>A. Certification of the Trainee in the administration of the IBA: Half-day sessions for each Trainee (Trainees are placed in groups of three).<br/>Certification includes:</p> <ol style="list-style-type: none"> <li>1. One actual or “real-time” observation of an infant, in which:           <ol style="list-style-type: none"> <li>a. A minimum of 85% inter-rater agreement is attained with the Trainer.</li> <li>b. The Trainer and Trainee make independent written observations and recommendations for facilitating the infants neurobehavioral organization and development. The Trainer and Trainee then compare and discuss their respective observations and recommendations.</li> </ol> </li> <li>2. Turn in the 10 inter-rater observations to the Trainer (completed as described in III.A, Trainee Responsibilities).</li> </ol> | <p>4 hrs/<br/>group</p> |
|--|-------------------------|

**Day 2**

- |   |               |
|---|---------------|
| <p>B. Each Trainee presents their case study and the pre/post videotape of their intervention session with the infant and family.</p> | <p>8 hrs.</p> |
|---|---------------|

**Day 3**

- |  |               |
|--|---------------|
| <p>C. Trainees are instructed in entering child and family outcome data via the Internet. This includes a review of the data collection forms and policies for collecting and inputting data. Trainees are provided with practice opportunities to input data directly into the IBAIP<sup>®</sup> website.</p> | <p>4 hrs.</p> |
|--|---------------|

<b>Subtotals of Time Commitment per Trainee:</b>	Preparation for Visit #1:	32 hrs
	Visit #1:	33 hrs.
	Assignments:	45 hrs.
	Visit #2:	<u>16 hrs.</u>

**Total Time Commitment per Trainee: 126 hrs.**

# **Appendix B**

## **Training Syllabus**

**Washington Research Institute**  
**150 Nickerson Street, Suite 305**  
**Seattle, WA 98109**  
**(785)-841-5440**

**The Infant Behavioral Assessment & Intervention Program<sup>©</sup>:**

The Infant Behavioral Assessment (IBA<sup>©</sup>)  
 The Neurobehavioral Curriculum for Early Intervention (NCEI<sup>©</sup>)

**Training Syllabus**

**Trainer:** Rodd Hedlund, MEd

**Trainee Objectives**

Following the training and the completion of the required readings/assignments (pre-test, pre-videotape) the trainee will be able to:

1. Describe the Synactive Model of Newborn Behavioral Organization and Development.
2. Define Approach, Stress, and Self-Regulatory behaviors.
3. Name and describe each of the nine states of consciousness.
4. Identify all behaviors on the Infant Behavioral Assessment (IBA<sup>©</sup>), and using this assessment, establish an inter-rater agreement with the Trainer of at least .85% on 5 observations.
5. Effectively utilize the Neurobehavioral Curriculum for Early Intervention<sup>©</sup>. The Trainee will identify at least 3 specific strategies for promoting neurobehavioral organization in infants in each of the following categories: environmental, positioning, handling, sensory modalities, and social interaction.
6. Describe the concepts and applications of Holding Parents Holding Their Baby<sup>©</sup> and the associated parent materials.
7. Develop a Neurobehavioral Action Plan. Strategies are developed to assist the Trainees to complete the training certification requirements.

All Trainees are required to complete the preparatory work (see: **Trainee Responsibilities, I. Preparation for Visit #1**) before the arrival of the IBAIP<sup>©</sup> Trainer. **Failure to complete these requirements will result in the Trainee's exclusion from this training.**

# THE INFANT BEHAVIORAL ASSESSMENT AND INTERVENTION PROGRAM<sup>©</sup>

## COURSE OUTLINE: WORKSHOP # 1

### DAY ONE

**9:00 AM - 5:00 PM**

- 9:00 - 11:00**      **Introductory Lecture: 9:00 AM - 1:00 PM**
- Low Birth Weight: Incidence and Sequella
  - An Evolutionary and Brain Developmental Perspective
  - Brain Vulnerability in Preterm Infants
  - A Neurobehavioral Perspective: The Synactive Theory of Newborn Behavioral Organization and Development
- 11:00 - 11:15**      **BREAK**
- 11:15 - 1:00**      • Contrasting Environmental/Birth Experiences between Full Term and Preterm Infants
- The Newborn Individualized Developmental Care and Assessment Program (NIDCAP<sup>®</sup>)
  - A Psychological Perspective
- 1:00 - 2:00**      **LUNCH & INTRODUCTIONS**
- 2:00 - 2:30**      IBA<sup>©</sup> Logistics. Trainees will turn in their completed:
- Registration Form
  - IBA<sup>©</sup> Pre-Test
  - Study Guide: Babies and their Mothers
  - Video Consent Forms
  - Trainee/Subject Identification Form
  - Pre-Training Videotape
- 2:30 - 3:00**      Further Articulation of the Synactive Model
- Historical Review
  - Theoretical Differences between IBAIP<sup>©</sup> and NIDCAP<sup>®</sup>
- 3:00 - 3:30**      Introduction to the IBA<sup>©</sup>:
- Appropriate Populations
  - Clinical Use
  - Manual
  - Scoring
- 3:30 - 3:45**      **BREAK**
- 3:45 - 5:00**      Item-by-Item Review of IBA<sup>©</sup> Operational Definitions



## IBAIP® COURSE OUTLINE: WORKSHOP # 1

### DAY TWO

9:00 AM - 5:00 PM

<b>9:00 - 9:30</b>	Video Observation of Care Giver-Infant Interaction
<b>9:30 - 10:15</b>	Score for inter-rater agreement: Tape #1
<b>10:15 - 11:00</b>	Score for inter-rater agreement: Tape #2
<b>11:00 - 11:15</b>	<b>BREAK</b>
<b>11:15 - 12:00</b>	Score for inter-rater agreement: Tape #3
<b>12:00- 1:00</b>	<b>LUNCH</b>
<b>1:00- 1:45</b>	Score for inter-rater agreement: Tape #4
<b>1:45 - 2:30</b>	Score for inter-rater agreement: Tape #5
<b>2:30 - 3:15</b>	Neurobehavioral Framework for Assessment and Intervention <ul style="list-style-type: none"> <li>• Dynamic Assessment and Intervention</li> <li>• Responsive Interactions</li> <li>• Context of the Interaction</li> </ul>
<b>3:15 - 3:30</b>	<b>BREAK</b>
<b>3:30 - 5:00</b>	Introduction to the Neurobehavioral Curriculum for Early Intervention (NCEI®): <ul style="list-style-type: none"> <li>• Goals and General Concepts of Neurobehavioral Intervention</li> <li>• Organization and Implementation of the Neurobehavioral Strategies</li> <li>• Profile of Neurobehavioral Strategies</li> <li>• Development of IFSP</li> <li>• IFSP Quarterly Progress Report</li> </ul>

## IBAIP® COURSE OUTLINE: WORKSHOP # 1

### DAY THREE

9:00 AM - 5:00 PM

- 9:00 - 10:45** Application of the Neurobehavioral Strategies
- Round Robin: Sensory/Cue-Specific Strategies for Intervention
  - Video Vignette Presentation and Group Discussion
  - Review Intervention Videotape
- 10:45 - 11:00** **BREAK**
- 11:00 - 12:00** Trainees' Presentations: Critique of Videotape
- 12:00 - 1:00** **LUNCH**
- 1:00 - 2:00** Trainees' Presentations: Critique of Videotape
- 2:00 - 3:00** On Becoming a Family: The Transition to Parenthood
- Parental History
  - Marital Relationship
  - Values of Having a Child
  - Work of Pregnancy
  - The Birth of an Infant with a Disability
  - Transition from Hospital to Home
- 3:00 - 3:15** **BREAK**
- 3:15 - 4:30** Reflections Upon Winnicott
- The Baby as a Growing Concern
  - The Ordinary Devoted Mother
  - Matters of Intimacy
  - Feelings of Oneness
- 4:30 - 5:00** Implementation of Holding Parents Holding Their Baby®

**IBAIP® COURSE OUTLINE: WORKSHOP # 1****DAY FOUR****9:00 AM - 5:00 PM**

<b>9:00 - 9:30</b>	Prepare for Live Demonstration: Infant-Care Giver Interaction
<b>9:30 - 10:00</b>	Live Demonstration/Scoring of IBA®
<b>10:00 - 10:30</b>	Instructions for Summarizing IBA® Results
<b>10:30 -10:45</b>	<b>BREAK</b>
<b>10:45 - 12:00</b>	IBA® Write-Up
<b>12:00 - 1:00</b>	<b>LUNCH</b>
<b>1:00 - 2:00</b>	Discussion of IBA® Write-Up
<b>2:00 - 3:15</b>	Summary of IBAIP® Training and Certification Requirements <ul style="list-style-type: none"><li>• Attainment of at least an 85% inter-rater agreement with Trainer</li><li>• Ten inter-rater Observations</li><li>• Presentation of Case Study</li><li>• Pre-/Post Videotape and Critique</li></ul>
<b>3:15 - 3:30</b>	<b>BREAK</b>
<b>3:30 - 4:30</b>	Development of a Neurobehavioral Action Plan: A guide to ensure the successful completion of all IBAIP® Certification Requirements
<b>4:30 - 5:00</b>	Evaluation of IBAIP® Training

## *Certification Requirements*

### **Visit #2**

Approximately four months from the initial workshop, the Trainer returns to check IBA<sup>®</sup> reliability with the Trainees and reviews the completion of certification requirements. The 3-day certification process includes:

1. **Day One**: One "real time" observation of an infant, in which:
  - a. A minimum of 85% inter-rater agreement is attained with the Trainer.
  - b. The Trainer and Trainee make independent written observations and recommendations for facilitating the infant's neurobehavioral organization and developmental growth. The Trainer and Trainee then compare and discuss their respective observations and recommendations.
2. Ten inter-rater observations (as described below in 2c). These 10 reliability observations should be conducted on:
  - a. Five typically developing infants.
  - b. Five atypical infants (DD, CP, or infants with a history of drug/alcohol exposure).
  - c. Each observation should also include written summaries and recommendations. The Trainee must attain an inter-rater agreement of at least 85% with another Trainee on 10 actual or "real-time" observations following the training.
3. **Day Two**: The Trainee must exhibit a thorough understanding of the neurobehavioral concepts as demonstrated by the implementation of appropriate neurobehavioral facilitation strategies and parent materials. Please see the **Assessment and Intervention Protocol** (IBA<sup>®</sup> Training Manual) for further instructions. Specific outcomes include:
  - a. The Trainee conducts serial assessments and interventions with an infant and family.
  - b. A Case Study is developed.
  - c. Post-videotape and critique.
4. **Day Three**: Trainees are instructed in entering child and family outcome data via the Internet. A Neurobehavioral Action Plan is developed with each outreach site to ensure implementation of project training/ products in all services provided by their own early intervention program.

**All of the above requirements must be successfully completed before certification is granted.**

# **Appendix C**

## **Videotape Protocol**

## VIDEOTAPE PROTOCOL

**You are required to videotape yourself before the training (Visit #1) in the manner described below. This should be accomplished within 2 weeks after the initial phone conference call as specified in Trainee Responsibilities, IA.**

**This tape will be used during the workshop and IS REQUIRED of each Trainee. A Trainee that does not fulfill this responsibility will be excluded from this training.**

### **Before You Videotape:**

1. Identify a very young infant, preferably under 3 months of age but not older than 6 months, who is currently receiving intervention services from you.
2. Explain the procedure to the parent, and ask the parent to sign the consent form (Appendix F). Note that there are two consent forms:
  1. Parent/Infant Consent For Photography and Dissemination of Photographic Product.
  2. Interventionist Consent For Photography and Dissemination of Photographic Product.

One consent form is signed by the parent of the child that you choose to videotape (Parent/Infant Consent form). The other consent form is signed by you (Interventionist Consent form). The white copy of each consent form will be collected at the beginning of the workshop. Please give the yellow copy from the Parent/Infant Consent form to the parent. The yellow copy from the Interventionist Consent form is for your own files.

3. Use a VHS camcorder, set it up at a distance of 3-5 feet from the infant; do not use the Zoom feature of the camera. If you have a timer on your camcorder, activate it so that the advancing time is recorded onto the tape. Position yourself and the camera so that the infant's entire face and body is visible and fills the frame. We find that an approximately 45 degree angle from the line of the infant's trunk with the interventionist's back toward the camera, works well.
4. Select one of the infant's developmental objectives from his/her IFSP.

### **TAPING**

5. Position the infant in any way that you like (without blocking the camcorder's view of the infant's face and body). Begin taping (timer activated). Engage the infant in the developmental objective that you have selected. The taping should last approximately 5 minutes. **A Suggestion:** You may want to consider selecting several of the child's developmental objectives in the event the infant shows little interest in the selected objective that you are attempting to engage him/her in.

6. It is highly recommended that you videotape an infant that you are currently providing intervention services to. This will provide you with the best learning experience. Sometimes this is not possible. If this is the case, you may videotape another infant utilizing the following protocol: Engage the child in one or all of the following developmental activities as if this were a typical assessment or intervention session. Begin with the first task and proceed to the next task after you have obtained the infant's best performance on each:
  - visually track a toy horizontally, vertically and in a circle
  - reach for the toy in midline
  - grasp the toy in midline
7. Ask the camera person to: 1) advise you if you are obstructing the view of the infant so that you can re-position yourself and 2) indicate when five minutes of taping has occurred.

**After You Videotape:**

8. Bring your tape and the white copies of the consent forms to the workshop (1 from the Parent/Infant Consent form; and one from the Interventionist Consent form) to the workshop.

Please label your videotape with the following information:

- a. Date of the videotaped interaction.
- b. Age of the infant.
- c. Your name and the name of your organization/agency.
- d. The city/state in which you live.

The IBAIP<sup>®</sup> Trainer will review the videotape with you and the other Trainees during the workshop.

9. Please complete the Trainee/Subject Videotape Identification: Visit #1: Pre-Tape (Appendix F). This will be collected at the beginning of the workshop.

## **APPENDIX D**

### **IBAIP<sup>®</sup>: Summary of Evaluation Findings**



## The Infant Behavioral Assessment and Early Intervention Program (IBAIP<sup>®</sup>)

### Summary of Evaluation Findings

#### Purpose of the Project

The purpose of this project was the development, field-testing, and evaluation of the Neurobehavioral Curriculum for Early Intervention (NCEI<sup>®</sup>) for infants born prematurely and/or with disabilities. This model assists early intervention professionals to: 1) observe and interpret the behavioral cues expressed by the infant; 2) learn and implement specific strategies to support the infant's neurobehavioral organization and self-regulatory competence; and 3) assist parents to recognize and support the neurobehavioral needs of their infant.

#### Field-Test Sites and Participants

Fifteen early intervention professionals from three sites in Tacoma, Washington (Tacoma Learning Center, Valley Learning Center, and the Hospital to Home Program) participated in the field-testing and evaluation of the IBA<sup>®</sup> and NCEI<sup>®</sup>. Data were collected on a total of 48 infants (26 males and 22 females) and their families. To be included in the project, infants had to be chronologically and/or developmentally six months of age or younger. The infants' average chronological age was 11 months, ranging from 2.5 to 31 months. Average corrected age was 9 months, ranging from 1 to 27 months. The infants' average gestational age was 33 and one-half weeks and their average birth weight was 2062 grams. Forty of these infants had three or more significant medical conditions such as prematurity and very low birth weight (<1500 grams), bronchopulmonary dysplasia, developmental delays, and vision or hearing impairments.

#### Measures

A small pilot study, non-experimental design, was developed to evaluate the Neurobehavioral Curriculum for Early Intervention NCEI<sup>®</sup>. Data were collected for formative and summative purposes using both quantitative and qualitative procedures to capture the impact of the curriculum on a variety of indices including:

- Bayley Scales of Infant Development-2nd edition (BSID-II) (Bayley, 1993)
- Early Intervention Developmental Profile (EIDP) (Shafer & Moersch, 1981)
- IFSP Quarterly Progress Reports (Hedlund, 1996)
- Infant Behavioral Assessment (IBA<sup>®</sup>) (Hedlund & Tatarka, 1988)
- Staff questionnaire (impact of the NCEI<sup>®</sup> on infants and care givers, satisfaction with the curriculum, recommendations for improvements, cost-effectiveness – time and efforts)
- Informal interviews and observations during meetings
- Case study based on professional logs

## Results

The field testing and evaluation focused on five main areas: Impact of the curriculum; impact of training; fidelity of implementation; formative evaluation of materials, user satisfaction and cost-effectiveness.

### *Infant Progress*

- Bailey Scales of Infant Development. Using paired t-tests, significant gains ( $p < .05$ ) from pretest to posttest were found for both mental (MAE) and the psychomotor (PAE) age equivalencies.
- Early Intervention Developmental Profile. Using paired t-tests, significant gains ( $p < .05$ ) from pretest to posttest were found for age equivalencies in all six domains, Cognitive, Gross Motor, Communication, Fine Motor, Self-Help, and Social.

- IFSP Quarterly Progress Reports

Infants' progress on IFSP goals and objectives was rated on a scale from 0 to 3, with 0 meaning No Change, 1 meaning Slight Change, 2 meaning Moderate Change and 3 meaning Objective Achieved. For all six domains, trends show a shift from a majority of infants (ranging from 70% to 93%) making mild to moderate (1 and 2) degrees of progress on IFSP goals to a majority of infants (ranging from 71% to 100%) making moderate progress or achieving their objective (2 and 3). Results from the MANOVA repeated measures analyses, revealed that infants' progress on IFSP goals was significant ( $p < .05$ ) for all six domains over a six month intervention period.

- Degree and Amount of Neurobehavioral Support

Neurobehavioral facilitation was rated for environmental facilitation (EN), motor facilitation (MOT) and cue-matched facilitation (CUE) each on a scale from 1 to 10, with 1 meaning the infant did not require facilitation, and 10 meaning the infant required a high degree and a high amount of facilitation. For all three types of neurobehavioral facilitation, trends show a systematic decrease over time in degree and amount of facilitation. At time 1, the percentage of infants requiring more than minimal support ( $>2$ ) ranged across the six domains from 10% to 59% (with an average of 29%) while at time 3 the percentage of infants requiring more than minimal support ( $>2$ ) ranged from 0% to 30% (with average of 13%). Decreases over time in degree and amount of neurobehavioral facilitation were also significant ( $p < .05$ ) for cognitive, gross motor, communication and fine motor goals.

- Infant Behavioral Assessment<sup>©</sup>

Using a subsample of 19 infants statistically significant differences ( $p < .05$ ) between pre- and posttest scores were found for autonomic and motor subsystems following 4 month intervention reflecting greater infant competence and reduced stress during interactions. Also found were a statistically significant ( $p < .05$ ) increase in number of occurrences for approach behaviors and a decrease in number of occurrences of stress behaviors.

- Interventionist Perception of NCEI<sup>®</sup> Impact on Infant's Progress on IFSP Goals and Neurobehavioral Organization and Competence.

Interventionists found that most strategies were very helpful in improving infants' neurobehavioral organization and had an impact on infants' gains on their IFSP goals. Some comments were:

"One of the major outcomes of the strategies was that the desired positive effect was immediate for the most part!"

"It made them ready and available."

### ***Care giver-Infant Interactions***

- Interventionist Perception of NCEI<sup>®</sup> Impact on Care giver-Infant Interactions

Interventionists found that care givers appeared more comfortable in a number of ways with their infants. Following are some the interventionist's comments:

"It truly was lovely to be able to validate what parents were seeing or feeling, talk about and model strategies and observe their use of strategies. I've heard a lot of "Oh, see that was too much. Let's take ----away." resulting in the baby calming down. ..."

"It has also made a big difference in how they explain what their baby does and why they respond as they do. It does give them...good feelings about their child and parenting."

### ***Impact of Training, Fidelity of Implementation, and Formative Evaluation of Materials***

The early interventionists participated in the following training:

- Four workshops: the IBA<sup>®</sup>, the NCEI<sup>®</sup>, Integration of Neurobehavioral Concepts in the Development of the IFSP, and Portrait of an Infant.
- Monthly discussion groups on supporting and facilitating parental competence and confidence in parenting their baby.

Overall, trainees found the IBA<sup>®</sup> and NCEI<sup>®</sup> training very effective in increasing their knowledge on infant neurobehavioral organization, their ability to interpret infants' cues and provide neurobehavioral support to infants and families. Following are some of the interventionist's comments:

" I look at all babies in a new light and don't hesitate to alter positions, room light, etc. ..."

"After really understanding these strategies, I feel I got quite a boost in my dealing with the parents."

" Seemed to give the mothers a feeling of more importance and reassurance that they know their babies better than anyone else...that they were the experts on reading their baby's cues."

Most interventionists implemented the NCEI<sup>®</sup> with all or most of the infants and families in their case load, including older children who were functioning at a low level. Overall, the NCEI<sup>®</sup> and the parent materials were found to be well thought out and organized. The neurobehavioral strategies and activities were comprehensive and easily understood. The parent materials were found to be positively worded, and understandable for average level readers.

### ***User Satisfaction and Cost-Effectiveness***

Overall, interventionists expressed satisfaction with most of the strategies and materials, and felt that parents also generally liked the strategies and materials. Most interventionists thought the strategies and parent materials were very easy to integrate within daily activities, and that they were very reasonable in terms of time and effort for preparation and implementation.

# **Appendix E**

## **Required Reading**

## The Infant Behavioral Assessment & Intervention Program<sup>©</sup>

### Required Reading List

Please read all of the articles listed below prior to the first workshop. You may obtain these articles from your site coordinator. \*\*\*Note: You will need to purchase Babies and their Mothers (D.W. Winnicott, 1987). Please complete the Study Guide (Appendix F) while reading this book.

1. Als, H. (1986). A synactive model of neonatal behavioral organization: Framework for the assessment and support of the neurobehavioral development of the premature infant and his parents in the environment of the neonatal intensive care unit. In J. K. Sweeney (Ed.), The High-Risk Neonate: Developmental Therapy Perspectives. Physical and Occupational Therapy in Pediatrics, 6 (3/4), 3-55.
2. Als, H. (1999). Reading the premature infant. In E. Goldson (Ed.), Developmental Interventions in the Neonatal Intensive Care Nursery, 18-85. New York: Oxford University Press.
3. Blanchard, Y. & Mouradian, L. (2000). Integrating neurobehavioral concepts into early intervention eligibility evaluation. Infants and Young Children, 13 (2), 41-50.
4. Bronson, M. (2000). Overview of theoretical perspectives on self-regulation. In M. Bronson (Ed.), Self-Regulation in Early Childhood, 11-30. New York: Guilford Press.
5. Bronson, M. (2000). Supporting self-regulation in infants and toddlers. In M. Bronson (Ed.), Self-Regulation in Early Childhood, 167-197. New York: Guilford Press.
6. Fraiberg, S., Adelson, E., & Shapiro, V. (1987). Ghosts in the nursery: A psychoanalytic approach to the problems of impaired infant-mother relationships. In L. Fraiberg (Ed.), Selected Writings of Selma Fraiberg, 100-136. Columbus: Ohio State University Press.
7. Gilkerson, L. & ALS, H. (1995). Role of reflective process in the implementation of developmentally supportive care in the newborn intensive care nursery. Infants and Young Children, 7 (4), 20-28.
8. Hrdy, S. B. (1999). An infant's-eye view. In S. B. Hrdy (Ed.), Mother Nature, Maternal Instincts And How They Shape The Human Species, 382-411. New York: Ballantine.
9. Miller, M. & Quinn-Hurst, M. (1994). Neurobehavioral assessment of high-risk infants in the neonatal intensive care unit. American Journal of Occupational Therapy, 48 (6), 506-513.

10. Shonkoff, J. P., & Philips, D. A. (2000). Promoting healthy development through intervention. In J. P. Shonkoff & D. A. Philips (Eds.), From Neurons to Neighborhoods: The Science of Early Childhood Development, 93-123. Washington DC: National Academy Press.
11. Winnicott, D. W. (1970/1987). Babies and their Mothers. New York: Addison-Wesley.
12. Wolf, M. J., Koldewijn, K., Beelen, A., Smit, B., Hedlund, R., & de Groot, I. J. M. (2002). Neurobehavioral and developmental profile of very low birthweight preterm infants in early infancy. Acta Paediatr, 91, 930-938.

## Appendix F

### Additional Training Materials

- Training Registration Form
- Pre-Training Test
- Pre-Training Test: *Scoring Key*
- Study Guide: Babies and Their Mothers
- Trainee/Subject Videotape Identification:  
Visit#1: Pre-Tape
- Parent/Infant Consent for Photography and  
Dissemination of Photographic Product
- Interventionist Consent for Photography and  
Dissemination of Photographic Product



**Infant Behavioral Assessment & Intervention Program<sup>®</sup>**  
**Training Registration Form**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Agency: \_\_\_\_\_

Telephone: @ Work: \_\_\_\_\_

@ Home: \_\_\_\_\_

Discipline: \_\_\_\_\_

Degree(s): \_\_\_\_\_

The number of years and locations(s) that you have provided EI services to infants and their families:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Describe your plans for the use of the IBA<sup>®</sup> and NCEI<sup>®</sup>: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**TRAINEE AGREEMENT**

*This signed and returned registration form indicates my understanding and agreement with the following:*

*1) The materials received for this workshop are copyrighted and I will not distribute them for use by others (i.e., individuals that have not received instruction/certification in IBAIP<sup>®</sup>).*

*2) Once certified in the administration of the Infant Behavioral Assessment<sup>®</sup> and the Neurobehavioral Curriculum for Early Intervention<sup>®</sup> I am permitted to utilize these materials within my professional setting.*

*3) After completing the training and certification process, I understand that I am not certified as a Trainer.*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please print your name: \_\_\_\_\_

# The Infant Behavioral Assessment & Intervention Program<sup>®</sup>

## Pre-Training Test

Training Site: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

The answers to the following questions may be found in the readings provided as well as in the IBA Training Manual<sup>®</sup> and the Neurobehavioral Curriculum for Early Intervention<sup>®</sup>. On separate paper, please answer these questions as thoroughly as possible:

1. The Synactive Model of Neonatal Behavioral Organization (Als, 1986) is represented by five subsystems. Describe each of these subsystems and provide a diagram illustrating the organization of this model. In a few well-chosen words, describe what is meant by the term “synactive.”
2. More recently, Als (1999) has made further refinements in her description of the Synactive Model. Describe the changes made since the publication of the Synactive Model of Neonatal Behavioral Organization (Als, 1986).
3. Describe the adaptation made in Als conceptualization of the Synactive Model as it is applied to the theoretical construct of the Infant Behavioral Assessment (IBA<sup>®</sup>).
4. The IBA<sup>®</sup> identifies three categories of behaviors utilized by infants to communicate their needs and wants. Describe these three categories of behaviors. Provide an example of each of these three categories in each of the four subsystems.
5. Provide behavioral descriptions of the IBA’s nine states of consciousness.
6. List and describe at least five environmental variables that you, as an interventionist, must be aware of during a developmental interaction with an infant and his/her family.
7. Discuss two specific strategies for promoting neurobehavioral organization in infants in each of the following categories: environmental, positioning, handling, sensory modalities, and social interaction.

**This pre-test will be collected at the beginning of the IBAIP<sup>®</sup> Workshop, Visit #1. All trainees are required to achieve a score of at least 85%.**

## The Infant Behavioral Assessment & Intervention Program<sup>©</sup>

### Pre-Training Test

#### Scoring Key

#### Total Points

- 21      1. The Synactive Model of Neonatal Behavioral Organization (Als, 1986) is represented by five subsystems (**3 pts. x 5 systems**). Describe each of these subsystems and provide a diagram illustrating the organization of this model. In a few well-chosen words, describe what is meant by the term “synactive” (**6 pts.**).
- 9        2. More recently, Als (1999) has made further refinements in her description of the Synactive Model. Describe the changes made since the publication of the Synactive Model of Neonatal Behavioral Organization (Als, 1986; **9pts.**)
- 5        3. Describe the adaptation made in Als conceptualization of the Synactive Model as it is applied to the theoretical construct of the Infant Behavioral Assessment (IBA<sup>©</sup>; **5 pts.**)
- 12      4. The IBA<sup>©</sup> identifies three categories of behaviors utilized by infants to communicate their needs and wants. Describe these three categories. Provide an example of each of these three categories in each of the four subsystems (**1 pt. for each example: 3 examples x four subsystems = 12pts.**)
- 18      5. Provide behavioral descriptions of the IBA’s nine states of consciousness (**2 pts. for each state**).
- 15      6. List and describe five environmental variables that you, as an interventionist, must be aware of during a developmental interaction with an infant and his/her family (**3 pts. for each variable**).
- 20     7. Discuss two specific strategies for promoting neurobehavioral organization in infants in each of the following categories: environmental, positioning, handling, sensory modalities, and social interaction (**2 pts. x each strategy (2 per category) x 5 categories as listed above = 20 pts.**)

100 Points

## ***Babies and their Mothers***

D.W. Winnicott, 1987

### **A Study Guide**

#### ***Reflections and Questions for You to Consider***

Please find below thoughts and questions to reflect upon as you are reading Babies and their Mothers. Add your own comments, thoughts, questions in the space provided under each section. We will be discussing this during the Workshop. Please come prepared.

1. What does Winnicott mean by the “ordinary devoted mother?”

2. *“A mother feels that the baby needs to be picked up, or put down, to be left alone or to be turned over, or where she knows that what is essential is the simplest of all experiences, that based on contact without activity, where there is opportunity for the feeling of oneness between two persons who are in fact two and not one. These things give the baby the opportunity to be, out of which there can arise the next things that have to do with action, doing and being done to. Here is the basis for what gradually becomes, for the infant, the self-experiencing being.”*

Winnicott, 1966/1987, p. 7

3. In chapter two Winnicott states: “*Unthinking people will often try to teach you how to do the things which you can do better than you can be taught to do them.*” Who are these “*unthinking people?*”

4. There is a type of specific knowledge that each profession has to impart to parents. Information that the parent(s) may find helpful and make use of. How should we as professionals impart this knowledge? The “how” is critical. Consider the “*how*.”

5. “*Mothers must be expected to see more than there is, and scientists must be expected to see nothing unless it is first proved*” (Chapter 4). “*Seeing more than there is.....*” How do parents “*see more than there is?*”

6. In Chapter six Winnicott discusses the fact that he was unable to “*carry my natural capacity for empathy with children back to include empathy with babies.*” He continues to describe his attempts to gradually “*feel myself into the infant-mother or infant-parent relationship. I think many who are trained on the physical side do have the same sort of block that I had myself, and they have to do a great deal of work on themselves in order to become able to stand in the baby’s shoes.*”

How can we as professionals find our way to “*stand in the baby’s shoes?*”

7. *“It is valuable to recognize the fact of dependence. Dependence is real. That babies and children cannot manage on their own is so obvious that the simple facts of dependence are easily lost”* (Chapter 8). What do you suppose these simple “facts of dependence” are?

8. *“This word “training” always seems to me to be something that belongs to the care of dogs. Dogs do need to be trained. I suppose we can learn something from dogs, in that if you know your own mind your dog is happier than if you do not; and children, too, like you to have your own ideas about things. But a dog doesn’t have to grow up eventually into a human being so when we come to (parents) and babies we have to start again, and the best thing is to see how far we can leave out the word “training” altogether.”*

Winnicott , 1964/1987, p.93

Training parents. Training babies. Training parents to train babies. Your thoughts please.

# The Infant Behavioral Assessment & Intervention Program<sup>®</sup>

## Trainee/Subject Videotape Identification Visit #1: Pre-Tape

**Trainee:** \_\_\_\_\_

**Training Site:** \_\_\_\_\_

**Date of Taping:** \_\_\_\_\_

**Parent's Consent Obtained For:**

**Photography      Dissemination      Both      (please circle one)**

**Child's Name/Initials:** \_\_\_\_\_

**Date of Birth:** \_\_\_\_\_

**Gestational Age:** \_\_\_\_\_

**Chronological Age At Time of Taping:** \_\_\_\_\_

**Corrected Age At Time of Taping:** \_\_\_\_\_

**Pertinent Medical History:** \_\_\_\_\_

\_\_\_\_\_

**Pertinent Social History:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Trainee's Consent Obtained For:**

**Photography      Dissemination      Both      (please circle one)**

\_\_\_\_\_

Washington Research Institute  
 150 Nickerson Street, Suite 305  
 Seattle, Washington 98109  
 (206) 285-9317

## Parent/Infant Consent For Photography And Dissemination Of Photographic Product

Project Director	Parent/Child
Name: Rodd Hedlund, MEd, Senior Researcher	Name of Parent:
Organization: Washington Research Institute	Name of Child:
Project: Infant Behavioral Assessment and Intervention Program <sup>®</sup> Outreach Project	Address:
Phone: (785) 841-5440 Email: <a href="mailto:rhedlund@wri-edu.org">rhedlund@wri-edu.org</a>	Phone:

### Introduction

Babies tell us many things just by the way they behave. They have their own special “body language” to express their needs and wants. Your service provider is currently in the process of learning how to “read” this special body language. He/she is taking part in a workshop offered by the Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) Outreach Project (please see the attached IBAIP<sup>®</sup> Summary). This workshop will help your service provider to better support babies during an assessment or intervention session.

### Procedure

The service provider will explain the videotaping procedure to you. He/she may show your baby a toy to look at, or may engage your child in a developmental objective selected from your baby’s program plan. The videotaping should last approximately five minutes. Should you agree to have your baby participate in this videotaping activity, your signed consent will be obtained prior to the videotaping of your child.

### Risks

During the course of this five minute videotaping segment your baby may experience some discomfort. For example, maybe he/she is tired, or hungry, or needs a diaper change. In the event that your child becomes overly distressed, the service provider will stop the videotaping.

### Other

Permission is also requested for you and/or your child to appear as a subject, without monetary compensation or other consideration, in: photos, videotapes, and/or slide presentations that may be produced by the IBAIP<sup>®</sup>. The purpose of this photographic/video product will be to train other professionals and parent groups. This product will become the property of IBAIP<sup>®</sup>.

The identity of your baby will remain confidential to all but your service provider and the IBAIP<sup>®</sup> Project Director. Your consent for the videotaping of your child is completely voluntary. Refusal to participate will involve no penalty or loss of benefits which you and/or your child are otherwise entitled.



## **Parent/Infant Consent For Photography And Dissemination Of Photographic Product**

### **Participant's Statement**

My signature(s) below indicates that I have voluntarily consented to allow my child to be videotaped as part of the training provided by the Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) Outreach Project. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I understand that a copy of this consent form will be given to me for my records.

### **Permission For Photography**

I hereby give permission for (please check the appropriate box[es] and print name[s]):

Myself: \_\_\_\_\_

My child or ward: \_\_\_\_\_

to be videotaped as part of the training provided by the IBAIP<sup>®</sup> without monetary compensation or other consideration.

Signature of Parent or Legal Guardian: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Service Provider: \_\_\_\_\_ Date: \_\_\_\_\_

### **Permission For Dissemination Of Photographic Product**

I hereby give permission for (please check the appropriate box[es] and print name[s]):

Myself: \_\_\_\_\_

My child or ward: \_\_\_\_\_

to appear as a subject, without monetary compensation or other consideration, in: photos, videotapes, and/or slide presentations that may be produced by the IBAIP<sup>®</sup>. It has been explained to me that the purpose of this dissemination product is the training of professional and parent groups and will become the property of IBAIP<sup>®</sup>. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I further understand that this consent shall remain in effect until it is canceled by written notice.

Signature of Parent or Legal Guardian: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Service Provider: \_\_\_\_\_ Date: \_\_\_\_\_

## Parent/Infant Consent For Photography And Dissemination Of Photographic Product

### Participant's Statement

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Myself: \_\_\_\_\_

My child or ward: \_\_\_\_\_

to be videotaped as part of the training provided by the IBAIP<sup>®</sup> without monetary compensation or other consideration.

Signature of Parent or Legal Guardian: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Service Provider: \_\_\_\_\_ Date: \_\_\_\_\_

### Permission For Dissemination Of Photographic Product

I hereby give permission for (please check the appropriate box[es] and print name[s]):

Myself: \_\_\_\_\_

My child or ward: \_\_\_\_\_

to appear as a subject, without monetary compensation or other consideration, in: photos, videotapes, and/or slide presentations that may be produced by the IBAIP<sup>®</sup>. It has been explained to me that the purpose of this dissemination product is the training of professional and parent groups and will become the property of IBAIP<sup>®</sup>. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I further understand that this consent shall remain in effect until it is canceled by written notice.

Signature of Parent or Legal Guardian: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Service Provider: \_\_\_\_\_ Date: \_\_\_\_\_

*"Parent's Copy"*

## The Infant Behavioral Assessment And Intervention Program (IBAIP<sup>®</sup>) Outreach Project

### Project Summary

All babies have their own special “body language” to express their needs and wants. A baby may indicate that she is interested in a toy rattle offered to her by: looking at the rattle, or reaching for it, or by smiling at it (approach behaviors). Another baby however may not like the rattle, because for him, it may be too brightly colored or makes an unusual sound. This baby may turn away from the rattle or begin to fuss (stress behaviors). Still another baby may be interested in the rattle but uses some behaviors to help her concentrate on it. She may bring her hand to her mouth to suck on, or hold onto her own clothing, or search with her feet for something to push against (self-comforting behaviors). Babies use all three of these types of behaviors to tell their care givers what their day-to-day likes and dislikes are.

Your service provider is currently in the process of learning how to “read” this special infant body language. He/she is taking part in a workshop offered by the Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) Outreach Project. This Outreach Project is funded by the United States Department of Education (CFDA 84.324 R). It supports the training of special educators, physical/occupational therapists, speech therapists, nurses, doctors, and psychologists to read the special body language of babies. The goals of the IBAIP<sup>®</sup> are to:

**1. Support early intervention professionals to read and interpret the baby’s behavioral story.**

This is accomplished through training in the administration of the Infant Behavioral Assessment. By watching the infant’s special body language the interventionist can effectively read the behavioral story of the infant.

**2. Translate the infant’s behavioral story into appropriate behavioral support** by selecting and implementing behavioral strategies that best help the infant during an assessment or intervention session. The strategies assist professionals to conduct developmental assessments and implement therapeutic, educational, and care giving intervention that supports the behavioral system of the child. Through this process the infant is individually supported in his efforts to engage in, and be engaged by the environment, and thus enhance the child’s growth and development.

**3. Support the parents’ understanding of their growing developing baby** through the implementation of Holding Parents Holding Their Baby. The materials included in this manual reflect a philosophy guided by the recognition of, and a respect for, what comes naturally to parents as they love and care for their baby. It serves to support parents as they continue to explore ways to adjust and adapt themselves to the ever growing and changing behavioral competence of their child.

If you should have any questions about the IBAIP<sup>®</sup> Outreach Project or the Parent/Infant Consent For Photography And Dissemination Of Photographic Product, please do not hesitate to contact Rodd Hedlund, IBAIP<sup>®</sup> Project Director. Thank you!

---

Rodd Hedlund, MEd  
Project Director, IBAIP<sup>®</sup>  
(785) 841-5440  
[rhedlund@wri-edu.org](mailto:rhedlund@wri-edu.org)  
[www.ibaip.org](http://www.ibaip.org)

**Washington Research Institute**  
**150 Nickerson Street, Suite 305**  
**Seattle, Washington 98109**  
**(206) 285-9317**

## **Interventionist Consent For Photography And Dissemination Of Photographic Product**

### **Project Director**

### **Interventionist**

Name: Rodd Hedlund, MEd, Senior Researcher	Name:
Organization: Washington Research Institute	Address:
Project: Infant Behavioral Assessment and Intervention Program <sup>®</sup> Outreach Project	
Phone: (785) 841-5440 Email: <a href="mailto:rhedlund@wri-edu.org">rhedlund@wri-edu.org</a>	Phone:

### **Introduction**

You are requested to videotape yourself before participating in the training offered by the Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>) in the manner described in the **Videotape Protocol** (IBAIP<sup>®</sup> Program Guide, Appendix C, page 35). This should be accomplished within 2 weeks after the initial phone conference call as described in **Trainee Responsibilities** (IBAIP<sup>®</sup> Program Guide, Appendix A, IA, page 25). This tape will be used during the workshop and is required of each Trainee.

### **Procedure**

Please refer to the **Videotape Protocol** (IBAIP<sup>®</sup> Program Guide, Appendix C, page 35) for a description of the videotaping procedures.

### **Other**

Permission is also requested for you to appear as a subject, without monetary compensation or other consideration, in: photos, videotapes, and/or slide presentations that may be produced by the Infant Behavioral Assessment and Intervention Program (IBAIP<sup>®</sup>). The purpose of this photographic/video product will be to train other professionals and parent groups. This product will become the property of IBAIP<sup>®</sup>. Your identity will remain confidential to all but those Trainees participating in the training offered by the IBAIP<sup>®</sup> and the IBAIP<sup>®</sup> Project Director.

## **Interventionist Consent For Photography And Dissemination Of Photographic Product Participant's Statement**

My signature(s) below indicates that I have voluntarily consented to allow myself to be videotaped as part of the training provided by the IBAIP<sup>®</sup>. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I understand that a copy of this consent form will be given to me for my records.

### **Permission For Photography**

I hereby give permission for (please check the box below and print your name in the space provided):

Myself: \_\_\_\_\_

to be videotaped as part of the training provided by the IBAIP<sup>®</sup> without monetary compensation or other consideration.

Signature of Interventionist: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_ Date: \_\_\_\_\_

### **Permission For Dissemination Of Photographic Product**

I hereby give permission for (please check the box below and print your name in the space provided):

Myself: \_\_\_\_\_

to appear as a subject, without monetary compensation or other consideration, in: photos, videotapes, and/or slide presentations that may be produced by the IBAIP<sup>®</sup>. It has been explained to me that the purpose of this dissemination product is the training of professional and parent groups and will become the property of IBAIP<sup>®</sup>. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I further understand that this consent shall remain in effect until it is canceled by written notice.

Signature of Interventionist: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_ Date: \_\_\_\_\_

## **Interventionist Consent For Photography And Dissemination Of Photographic Product Participant's Statement**

My signature(s) below indicates that I have voluntarily consented to allow myself to be videotaped as part of the training provided by the IBAIP<sup>®</sup>. I understand that my decision requires considered judgement. I have had the opportunity to ask questions and secure the kind of information I need to make such a decision. I understand that a copy of this consent form will be given to me for my records.

### **Permission For Photography**

I hereby give permission for (please check the box below and print your name in the space provided):

Myself: \_\_\_\_\_

to be videotaped as part of the training provided by the IBAIP<sup>®</sup> without monetary compensation or other consideration.

Signature of Interventionist: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_ Date: \_\_\_\_\_

### **Permission For Dissemination Of Photographic Product**

I hereby give permission for (please check the box below and print your name in the space provided):

Myself: \_\_\_\_\_

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Signature of Interventionist: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_ Date: \_\_\_\_\_

*"Interventionist's Copy"*