



# Transdisciplinary Play-Based Intervention **2** ND EDITION

Toni Linder  
with invited contributors

TPBA Play-Based TPBI  
TPBC™



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# Contents

About the Authors .....	vii
Preface .....	x
Acknowledgments .....	xii
<b>1 A Review of Transdisciplinary Play-Based Intervention .....</b>	<b>1</b>
<b>2 Planning Considerations for TPBI2 .....</b>	<b>5</b>
<b>3 Facilitating Sensorimotor Development .....</b>	<b>29</b>
I Strategies for Improving Functions Underlying Movement .....	29
with Anita C. Bundy	
II Strategies for Improving Gross Motor Activity .....	47
III Strategies for Improving Arm and Hand Use .....	69
with Susan Dwinal and Anita C. Bundy	
IV Strategies for Improving Motor Planning and Coordination .....	93
with Anita C. Bundy	
V Strategies for Improving Modulation of Sensation and Its Relationship to Emotion, Activity Level, and Attention .....	121
with Anita C. Bundy	
VI Strategies for Improving Sensorimotor Contributions to Daily Life and Self-Care .....	141
with Anita C. Bundy	
<b>4 Strategies for Working with Children with Visual Impairments .....</b>	<b>163</b>
Tanni L. Anthony	
<b>5 Facilitating Emotional and Social Development .....</b>	<b>183</b>
I Strategies for Improving Emotional Expression .....	183
II Strategies for Improving Emotional Style/Adaptability .....	199
III Strategies for Improving Regulation of Emotions and Arousal States .....	219
IV Strategies for Improving Behavioral Regulation .....	249
V Strategies for Improving Sense of Self .....	275
VI Strategies for Improving Emotional Themes in Play .....	293

VII	Strategies for Improving Social Interactions . . . . .	313
<b>6</b>	<b>Facilitating Communication Development . . . . .</b>	<b>343</b>
I	Strategies for Improving Language Comprehension . . . . .	343
II	Strategies for Improving Language Production . . . . . <i>with Natasha Hall</i>	363
III	Strategies for Improving Pragmatics . . . . .	389
IV	Strategies for Improving Articulation and Phonology . . . . .	413
V	Strategies for Improving Voice and Fluency . . . . . <i>with Renee Charlifue-Smith</i>	427
VI	Strategies for Improving the Function of the Oral Mechanism for Speech Production . . . . .	437
VII	Strategies for Improving Hearing and Communication . . . . . <i>with Jan Christian Hafer</i>	451
<b>7</b>	<b>Facilitating Cognitive Development . . . . .</b>	<b>481</b>
I	Strategies for Improving Attention . . . . .	481
II	Strategies for Improving Memory . . . . .	499
III	Strategies for Improving Problem Solving . . . . .	519
IV	Strategies for Improving Social Cognition . . . . .	541
V	Strategies for Improving Complexity of Play . . . . .	557
VI	Strategies for Improving Conceptual Knowledge . . . . .	577
<b>8</b>	<b>Strategies for Supporting Emerging Literacy . . . . .</b> <i>with Forrest Hancock</i>	<b>601</b>
	Index . . . . .	633





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# 1

## **A Review of Transdisciplinary Play-Based Intervention**

In *Transdisciplinary Play-Based Assessment, Second Edition* (TPBA2), a vignette was presented that illustrated the traditional and TPBA approaches from the child's point of view. In the following vignette, the difference between traditional intervention and transdisciplinary play-based intervention (TPBI2) is presented from the child's point of view. Because intervention at home and at school or child care may look very different, both situations are exemplified. Note that the role of the child, the therapist, and parent or teacher is similar in both settings, but very different depending on the approach.

### **TRADITIONAL INTERVENTION AT HOME**

Imagine yourself as a 2½-year-old boy with cerebral palsy and overall developmental delays. You are sitting on your Mommy's lap looking at pictures in a book when the doorbell rings. Mommy puts you down on the floor and goes to answer the door. She smiles and tells Rosa to come in. Rosa brings in her bag of toys and you smile at her too. You know what is in that bag. Rosa has fun toys! You crawl over to the bag and try to get into it. Rosa and Mommy are talking about you and what you have been doing all week. You start pulling out Rosa's toys, looking for the one that has lights and makes noises. Oh, here it is! You start banging on it, trying to make it go. Rosa pushes the button for you. Mommy sits in her chair and watches you play with Rosa. Rosa takes out another toy, the one with rings you put on a stick. This is not your favorite toy. It is hard. So you go back to the first toy and bang on it some more. Rosa gets the "doughnuts" again and helps you put them on the stick. Rosa then gets out markers and paper and puts them on the coffee table. She tries to get you to stand up and come play with the markers. She helps you stand and hands you the marker. You bang the marker on the paper a couple of times and then sit down. Standing up is hard and writing is not fun. You crawl over to Mommy so she will pick you up, but instead, Mommy says, "I'll let you two play for a while. I need to clean up the kitchen while you guys are busy." Mommy leaves the room. You try to follow her, but Rosa pulls you back and hands you another toy. Okay. Playing is fun. You stay in the living room and play on the floor

until Rosa packs up her toys to leave. Mommy comes back and tells her, “See you in a couple of weeks.” Rosa says, “Maya will be out next week to work on some of his motor issues.” I’m not nuts about Maya. She makes me do hard things.

## TRANSDISCIPLINARY PLAY-BASED INTERVENTION

You are sitting on your Mommy’s lap looking at pictures in a book when the doorbell rings. Mommy puts you down on the floor and goes to answer the door. She smiles and tells Rachel to come in. Rachel talks to me and plays with me with my favorite pop-up toy, while she asks Mommy about our week and what was fun and what was hard. Mommy says she is having trouble getting her work done at home, because I need attention and lots of help. It’s true. I like my Mommy to spend time with me! Rachel asks what Mommy would like to be doing right now, and she says, “I really need to be cleaning up the kitchen from breakfast *and* lunch. It’s one o’clock, and I can’t seem to get time to do what I need to do. It’s better on the days that he goes to child care. I get a little time to myself.” Rachel says, “Then let’s go into the kitchen and look at how Sam can help out and learn some new skills!” We all go into the kitchen, which (Mommy is right) is a mess! Rachel says, “Let’s see. We want him to be motivated to stand independently, to be able to use two hands together, to learn some useful new words, and to entertain himself independently. Right?” “Especially, that last one!” my Mommy laughs. “Okay. Let’s think about this for a minute,” Rachel says. “What in this room does Sam like?” Mommy laughs, “Aside from food? He loves water.” (She’s right about that!) “He likes getting into my cupboards and pulling things out!” (She’s also right about that!) Rachel says, “Let’s let him help with washing dishes.” Rachel looks around then goes into the living room, comes back with my little plastic table and cube chair, and puts the table up against the wall. “This way,” she says, “the table is stabilized and Sam can pull up on it without pushing it away. Do you have a plastic tub or pot we can put some water in?” I crawl over to see what Mommy is doing in the cupboard, and I see lots of fun pots and pans. “Let’s let him pick one,” Rachel says. “That lets him make choices and be independent.” “Sam, get a pan *out*.” No problem there. I pull out a big one in front. Rachel says, “How about some spoons and stuff like that?” Mommy opens a drawer and I pull up to stand and look inside. “Great!” Rachel says, “He wants to see in the drawer. That’s a great way to motivate him to pull to stand!” Mommy lets me pull out a few things and throw them on the floor, then she shuts the drawer. Rachel puts water in the pan, shows me, and takes it to my little table. “Wawa!” I shout and crawl to the table. “Yes, Sam. It’s *water*. Come help Mommy clean the dishes.” I pull up and reach for the water. Rachel moves the chair so I can sit down by myself. Mommy brings over the stuff I threw on the floor and puts them in the pot of water. I reach in and get a spoon and start playing. Rachel asks Mommy for a sponge and then shows me how to squeeze the sponge. It’s hard, but I like watching the water come out. She shows me how to wipe the spoon. Hey, this cleaning is fun!

Rachel says, “Okay. Now that he’s cleaning, we can start.” Mommy and Rachel go to the sink and Mom puts water in the sink and starts to wash her dishes. Rachel tells her about how to “model” for me, says, “Sam, spoon,” when we are washing spoons, and tells Mommy to give me something new to wash when I get bored. I’m not bored, though. I love playing in the water. Mommy keeps showing me what she is washing, then tells me it’s my turn to wash. I show her how to squeeze the sponge. Mommy says, “Great, Sam. You are such a big helper.” I really am! Mommy and Rachel and I are talking while Mommy and I are washing dishes. When we are all done, Mommy lets me use my sponge to clean up my “mess.” Mommy laughs and tells Rachel that maybe she’ll have me help put the clothes in the washer and dryer too. Rachel says that that is a terrific idea, because if the laundry basket is on the floor, I will need to

get up and down to take out each piece and then put it in the dryer, and I'll need to use two hands on the bigger pieces. I like taking things out and putting them in. I think we should do that now. I say, "out" and Mommy and Rachel look at each other, smile, and nod. Mommy says, "I never thought about how a 'chore' for me is play for him. But, this gives me all kinds of ideas about how we can do things together that will help both of us!"

## TRADITIONAL INTERVENTION IN CHILD CARE AND EARLY EDUCATION

I am sitting with my friend, listening to my teacher read a book, when Miss Mary comes in to get me. She tells my teacher she'll bring me back in time for snack. Good. I like snack, but I'd like to have heard the end of the story before we left. She carries me to her office where she has a little table and chairs. She has a doll and some cars on the table, so that looks like fun. I sit in the chair and Miss Mary asks me to show her the baby's mouth, eyes, and nose. I point to them. "What is this?" she asks and points to the baby's head. I tell her it's "har." I don't know why we are pointing to these things. Can't we just play with them? I start pushing the cars around and making noises like my daddy's car. She hold up a car and says, "C-A-R. Say 'car,' Sam." I try to imitate her. Then I go back to pushing the car and making car noises. Miss Mary gets out a book and starts to show me pictures in the book. She asks me what the pictures are. Doesn't she know? After the book, Miss Mary takes me back to my class and tells me she'll see me next week. Good. I'm back in time for snack!

## TRANSDISCIPLINARY PLAY-BASED INTERVENTION IN CHILD CARE AND EARLY EDUCATION

Mr. Bob comes in before story time and talks to my teacher. I am sitting in my cube chair, 'cause Mr. Bob told me and my teacher that I will be able to sit better, talk better, and pay better attention in my cube chair. I think he is right. We used to all sit on carpet squares, and I had to work so hard to sit up I couldn't pay attention to the story or talk to the teacher! Other kids have cube chairs too, and some sit on the floor or on a special cushion. Mr. Bob brought my book for me to look at while we are listening. Mr. Bob made my book for me. It has just has three pages and they are thick pages, so I can turn them myself. This book helps me see what the teacher is talking about. We all take turns helping the teacher tell the story. Sometimes, when it is my turn to tell the story, I get to use Mr. Bob's talking book. My teacher holds up her book, and I push the buttons on my talking book, and the book tells the story. I try to talk as much as I can. I tell my friends what I want them to shout out, like what the cow says. I like being the teacher. We do the same story every day for many days and pretty soon I know a lot of the words in the story and can tell other people what I know.

Mr. Bob stays after story time. That's when we all have choices about what we want to do. Mr. Bob helps us tell the teacher what we want to do, and then he goes around and helps some of us. He likes to help us talk to our friends and say what we're doing. Sometimes he uses sign language or pictures. My friend Alison has a machine that Mr. Bob helps her use. When she pushes on part of it, the machine talks for her! It is really cool. Mr. Bob is teaching my teacher (how neat is that!) how to make it talk. Sometimes Mr. Bob brings in his friends. He calls them part of his "team" to teach *him* what to do. There is a lot of teaching going on in this classroom!

Now it is snack time, and Mr. Bob is eating with us today. He says he is going to eat his cracker and cheese in his ear! I shout, "Mouth!" Mr. Bob says, "Stop, Bob!" He laughs, tells me 'thank you,' and eats it with his mouth. Good thing I told him what to do. Then he said he is going to listen to me with his nose. I laugh. Mr. Bob is so funny.

Marisa tells him, “Stop, Bob!” He stops and looks at her. She points to her ear. “Ear, Bob.” I say it too. “Ear, Bob!” My teacher asks me if I want to smell the cheese and holds the cheese to my eye. Everybody laughs, and says, “Stop, Ana!” My teacher says, “Where should I hold the cheese?” Everyone shouts, “His nose!” “Nose!” I yell too. She holds it up to my nose and I smell it. It’s fun to tell the teacher what to do!



## 2 Planning Considerations for TPBI2

The purpose of *Transdisciplinary Play-Based Intervention, Second Edition* (TPBI2) is to present a process for planning, implementing, and evaluating intervention for children from birth to 6 years of age who need supports to enhance their development. Within TPBI, the intent is to provide a structure for that process, a framework for conceptualizing intervention strategies, and a means for monitoring and evaluating the effectiveness of the strategies selected.

### TEAM MEMBERS

Team members in TPBI, whether the same or different from the TPBA team, work together to support the family members, care providers, and early educators who interact with the child daily. During the postassessment planning phase, the team members listen to family members and, along with them, provide input as to what the child's needs are, what services would best meet those needs, and what form intervention should take. Either during the postassessment planning time or during a preintervention planning phase, the team moves from talk of services to a plan for implementing actual strategies. During the preintervention planning phase, the whole team, or possibly a couple of representatives of the team if TPBA was done in the home, meet with primary caregivers and teachers to talk about the specifics of what outcomes are desired, what functional objectives will guide intervention, and what strategies can be used across the day to support development and learning. For children in school, separate planning meetings may be held with parents and teachers, although this is not recommended because all caregivers need to be on the same page, even if issues at home and school are different. The team members help the primary caregivers think about possible outcomes and help them identify times of the day, activities, or events for which they either need intervention ideas or identify times when their positive interactions with their child are ripe for interventions to be introduced. This is a brainstorming time, and parents and teachers may agree or disagree with ideas presented, talk about what has already been tried, reveal personal struggles, and/or share their own perceptions about what strategies might work. The team's role is to listen, support, help weigh



the options, and then facilitate the development of the actual intervention plan. During the intervention phase, the role of team members varies depending on the age of the child, location of services, and level and type of strategies identified. Both for the child and the parents or teachers, the goal is to provide intervention based on the system of least support, meaning that, as much as possible, the team members play a consultation role, stepping in to provide more guidance or structure as needed. The goals for the child, parents, caregivers, and educators are independence and the ability to think for oneself and solve problems creatively and independently. Team members' roles vary with each individual person, in accordance with their need and desire for varying levels of support. During the evaluation phase, team members provide observations, elicit parent perceptions, and try to pull together an objective view of progress and next steps.

TPBI is not like traditional therapy, in which specialists meet with a child and do hands-on, direct intervention for their areas of expertise. TPBI is a team approach, with a concerted effort made to provide holistic intervention. In an earlier analogy, the relationship between the child, family, and team was described as a wheel, with the child as the hub, the team as the spokes, and the family as the rim, holding all together and making it roll. An alternative way of perceiving the relationship might be that the child is the hub, the family members, teachers, and other significant people in the child's life are the spokes, and the team is the rim that provides the support to the inner pieces. The rim cannot function effectively if part of it is missing or ineffective. The team must be in constant communication, support each other in many ways, and function as a unit. In short, the child, family, teachers, and team must function in a collaborative whole for intervention to be maximally effective. Most of us do not get to choose our teams, our families, or our children, but we do our best to make it all work. When intervention "works," it does so because each member of the team contributes information, suggestions and advice, training, coaching, supervision, and emotional support. Intervention works when team members are caring, nonjudgmental, open, willing, honest, tolerant, and patient. Intervention works when parents are caring, nonjudgmental, open, willing, honest, tolerant, and patient. And intervention works when all parties listen to each other, integrate ideas, and collaborate in making them work. Although this doesn't always happen, just think what could happen if the wheel rolled in a straight line without wobbling.

Everyone on the team implements intervention in a different way, playing different roles as called for. One model for thinking about implementing TPBI is that each team that provides early intervention (EI) and/or early childhood special education (ECSE) support consists of members from a variety of different disciplines, depending on the needs of the population served. The team conducts the TPBA together, as described in Chapter 1 of TPBA2. The team holds the postassessment meeting. Things then can become unclear, because different states and agencies function in different ways. At some point in the process, an intervention team is assigned to work with the child and family, and hopefully the same team also works with the caregivers and teachers (although this is not a given). For each child, a *family facilitator* should be assigned. Ideally, the family facilitator is a person who already has connected well with the family or has expertise in the area of the child's primary disability or needs. The family facilitator should remain the family contact and develop a trusting relationship with the family in order to provide continuity. The rest of the team should support this facilitator.

The team, including the intervention facilitator, should meet on a weekly basis to discuss the children and families in order to garner ideas and support. Intermittently, a short video clip of the child involved in various daily activities should be presented for the team to watch and provide input. Discussion should revolve around key issues and questions the intervention facilitator brings to the team. Whenever possible, home visits or classroom visits should be made by pairs of team members. This is important for

several reasons. Two team members can offer fresh perspectives on the child and family, provide coaching in their own areas of expertise, provide feedback to the primary intervention facilitator on how they think the child or family is responding, and/or provide peer mentoring. Taking different team members at varying times expands the opportunities for rethinking intervention strategies. In addition, when team meetings are held and the child and family are discussed, the team members have more “real life” perspective to bring to the table.

A key factor to remember in TPBI is that all team members are merely supporters for the true primary interventionists—the parents, caregivers, and teachers who spend many hours with the child each day. The role of the intervention facilitator is to help those people gain knowledge, skills, and confidence in their interactions with the child, while at the same time helping them to “keep it real,” to make learning and developing more fun and motivating than ever before.

## TYPES OF INTERVENTIONS

Within TPBI2, ideas for intervention are presented in several ways. General principles that promote development are offered along with strategies to help adults create supportive learning environments. Suggestions also are presented for fostering development and learning across cognitive, emotional and social, communication, and sensorimotor areas through modification of interpersonal interactions. Examples are shared of applying strategies in various activities and routines across the child’s day at home and child care or school. Developmentally appropriate suggestions also are illustrated. The team, therefore, has a repertoire of ideas from which to draw. The type of strategies that are identified to try in intervention will vary depending on the child’s age, type of disability, and degree of severity of disability; the setting in which intervention is taking place; the adult’s relationship with the child; and the adult’s confidence in using the strategies. The professional’s role with the child and adults in the child’s life will also vary, depending on the type and level of support needed and desired.

## MATERIALS

No specific materials are required to conduct intervention in the TPBI approach. TPBI is a process, using whatever is in the natural environment. In addition, therapists may recommend modifications of the environment or materials or the use of therapeutic materials or equipment that may enhance the child’s functioning. Whenever possible, the team (including family members and teachers) should use the same materials in the home and classroom as the peers or siblings without disabilities. Adaptations or special toys, materials, and equipment are included when doing so will increase the child’s motivation and increase skills or independence. The most important “materials” are the forms used in the planning process for TPBI.

Forms are merely an aid to the TPBI2 process. They give structure to the process and provide a guide for thinking about, planning, implementing, and evaluating intervention. Modifications of the included forms or substitutions with specific program forms may be needed to meet state or agency requirements. A summary of the forms used in TPBI and their descriptions follow (note that all forms are included on the TPBA2 & TPBI2 Forms CD-ROM):

- Postassessment/before intervention:
  - Child Assessment and Recommendations Checklist (see Appendix in *Administration Guide for TPBA2 & TPBI2*)
  - Family Service Coordination Checklist (Forms CD-ROM only)
  - Team Intervention Plan (see Appendix in *Administration Guide*)

- Beginning intervention and ongoing  
Collaborative Problem-Solving Worksheet (see Appendix in *Administration Guide*)  
TIP Strategies Checklist: Home and Community (see Appendix in *Administration Guide*)  
TIP Strategies Checklist: Child Care and Early Education (see Appendix in *Administration Guide*)
- Ongoing and postintervention (optional, as other monitoring tools may be used)  
Functional Outcomes Rubrics (FORs) by TPBA2 Domain (4) (sensorimotor, emotional and social, communication, and cognitive; see Appendix in *Administration Guide*)  
Functional Outcomes Rubrics by OSEP Child Outcome (3) (CD-ROM only)  
Team Assessment of Progress (TAP) Form (see Appendix in *Administration Guide*)  
OSEP Child Outcomes Reporting Form and Worksheets (CD-ROM only)

## Description of Forms

### *Child Assessment and Recommendations Checklist*

This optional form can be completed after TPBA2 and after services and interventions are determined. It summarizes what the child and family's needs are, what type of interventions and services will be provided and by whom. It also notes the time for a review of progress.

### *Family Service Coordination Checklist*

This optional form can be used for IDEA Part C service coordination. It identifies areas of potential need and family strengths, as well as who will be responsible for helping to access services in these areas.

### *Team Intervention Plan*

This form is meant to be used after the TPBA and any other assessments are completed. It identifies selected global outcomes and priority intervention subcategories, as well as specific functional targets for intervention.

### *Collaborative Problem-Solving Worksheet*

The Collaborative Problem-Solving Worksheet (CPSW) is used to record the subcategories selected and functional intervention targets determined. Other developmental areas that also can be addressed along with intervention targets can be indicated as well. Specific interactional and environmental strategies and resources for intervention are noted on this worksheet.

### *TIP Strategies Checklist: Home and Community*

This TIP checklist identifies, in brief format, ideas for types of activities or routines at home and in the community where intervention can be embedded, along with suggestions for types of interactional and environmental strategies that may be considered. This checklist is meant to stimulate ideas and can be used when completing the CPSW.

***TIP Strategies Checklist: School and Child Care***

This TIP Strategies Checklist identifies, in brief format, ideas for types of activities or routines at education and child care settings where intervention can be embedded, along with suggestions for types of interactional and environmental strategies that may be considered. This checklist is meant to stimulate ideas and can be used when completing the CPSW.

***Functional Outcomes Rubrics by TPBA2 Domain***

These charts provide a matrix of Goal Attainment Scales for each of the domains of development, by subcategory. The Goal Attainment Scales show the progression from minimal to functional skills for the subcategory. The scale is used to indicate baseline of performance (behavior on implementation of intervention) and level of performance at two subsequent measurement intervals.

If desired, priority subcategories can be chosen by domain from these charts. Once the priority subcategories are determined by the team, functional intervention targets are written.

***Functional Outcomes Rubrics by OSEP Child Outcome***

These charts provide a matrix of Goal Attainment Scales for each of the OSEP Child Outcomes. These include the same Goal Attainment Scales as on the FOR by TPBA2 Domain but organized by OSEP Child outcome. Once the priority subcategories are determined by the team, functional intervention targets are written (for more information, see OSEP Child Outcomes Reporting with TPBA2 on the optional TPBA2 & TPBI2 Forms CD-ROM).

***Team Assessment of Progress (TAP) Form***

The TAP Form is meant to be used to evaluate the child's progress on the Goal Attainment Scales for the subcategories selected as priorities for intervention. These are completed at least twice a year, but preferably more frequently. (A more comprehensive review of all subcategories by the team can also be done using the FORs; refer to the instructions on the optional CD-ROM for translating this information into outcomes reporting categories.) The Team Intervention Plan is then revised by reexamining desired global outcomes, identifying new subcategory priorities, and writing new intervention targets.

***OSEP Child Outcomes Reporting Form and Worksheets***

States, and therefore programs within states, are required to report the percentage of children receiving IDEA services who improve, maintain, or do not improve functioning on three federally designated child outcomes. (For additional information, see OSEP Child Outcomes Reporting with TPBA2 on the optional TPBA2 & TPBI2 Forms CD-ROM.) This form and its worksheets enable programs to track a child's progress using the Goal Attainment Scales and the FORs by OSEP Child Outcome.

**TPBI PROCESS**

TPBI is meant to be a flexible process. It is meant to be used in conjunction with TPBA2, because TPBA serves as an initial experiment in intervention and thus provides a foundation for planning approaches that may be beneficial. The TPBI process can be used following any assessment that results in obtaining sufficient functional information to

be used for intervention planning. Once the team has information on the child's skills, behaviors, learning style, interactional preferences, and functional needs, intervention planning can proceed. The TPBI process involves several steps before actually beginning intervention. These steps establish the direction for intervention efforts, narrow down the focus of efforts to functional targets the family and other providers can address, and then lay out a plan for intervention. Specific forms are provided to facilitate thinking through each step of the TPBI process. Teams may choose to use their own forms, may use the TPBI2 forms in addition to agency forms, or may use only the TPBI2 forms. The core of TPBI2 is not in the paperwork, it is in the use of recommended strategies with children, families, and professionals. The forms are meant to support this work, not detract from it. Therefore, use the pieces that are needed and helpful.

The Twelve Steps (in the following section) outline how the TPBI process is completed and illustrate the means by which the state-of-the-art theories, research, and methodologies outlined in Chapter 9 of the *Administration Guide* (Fundamentals of TPBI2) have been incorporated into the process. As with TPBA2, professionals are given various tools and options for how to use them to meet individual program or team needs and preferences. The various means provided to plan intervention are described in the following sections, along with descriptions and examples of how the TPBI2 planning process can be used with a diverse population of children.

## THE TWELVE STEPS

### Step One: Identify Strengths, Needs, and Desired Outcomes

It is useful to have a goal and to know if progress is being made toward that goal. For this reason, the first step in the intervention process is to identify the overall outcome or outcomes that are desired as a result of intervention. As described previously, the field has moved away from global goals such as "Improve fine motor skills" to working toward long-term functional outcomes that relate to successful functioning and quality of life. Depending on your home state, your agency requirements, and/or your professional preferences, outcomes can be determined in many ways. TPBI2 uses several different sources to identify the direction and focus intervention should take: 1) preliminary information from families obtained on the Child and Family History Questionnaire (CFHQ) and Family Assessment of Child Functioning (FACF) Tools 2) TPBA2 Observation Guidelines and Observation Summary Forms from each domain, 3) TPBA2 Age Tables from each domain, 4) Goal Attainment Scales for each subcategory of TPBA2, and/or 5) the Functional Outcomes Rubric (FOR) for each TPBA2 domain (see Appendix in the *Administration Guide*), or 6) the Functional Outcomes Rubric (FOR) by OSEP Child Outcome. Because multiple measures should be used to identify outcomes and specific targets, a combination of these tools is recommended (Sandall, McLean, & Smith, 2000).

#### *Preliminary Information from Families*

First, information from the Child and Family History Questionnaire (CFHQ) and Family Assessment of Child Functioning (FACF) Tools, is used in determining desired outcomes for the child and family. In particular, several questions at the end of the All About Me Questionnaire (the second part of the FACF) ask the parents what they would like to see for their child in terms of independence, control, skills, and so forth. Even if the child is of preschool age and an individualized education program (IEP) is being developed, it is still recommended that the program include outcomes both for the child in the school context and within the family and community contexts. Risk and protective factors are important to note in building the support elements of the in-

tervention plan, because they are helpful in identifying priorities, strengths, resources, and concerns.

### ***TPBA2 Observation Guidelines and Observation Summary Forms***

The TPBA2 Observation Summary Forms for each domain identify overall patterns of strengths and needs (see TPBA2 Observation Summary Forms and Observation Guidelines for each domain in *TPBA2*) and contain a 9-point Goal Attainment Scale (seen in each section of *TPBI2*) for rating the child's level of functioning. A quick review of these forms will help distinguish broad areas of strength and focus of intervention for the child. For areas of concern, a review of the TPBA2 Observation Guidelines for those specific subcategories will enable the team to identify qualitative processes that need further development or attention in intervention.

### ***TPBA2 Age Tables***

The TPBA2 Age Tables also can be used to identify strengths and needed skills and monitor progress in specific subcategories of concern (see Age Tables relating to each domain of TPBA2 in Appendix in the *Administration Guide for TPBA2 & TPBI2*). Higher level skills are strengths that can serve as a foundation for further development. Skills that are noted as “gaps” or skills the child has not yet accomplished but that provide a foundation for further learning (“ready for”) should be identified. The TPBA2 Age Tables enable the team to identify specific areas or skills to target.

Using this information, the team can build on their discussion of strengths and needs to determine outcomes. Three different options are provided for determining which potential long-term global outcomes are appropriate for the child: identifying TPBA2 developmental domains needing a higher level of performance, OSEP Child (ECO Center) Outcomes, and personal outcomes.

*Identify TPBA2 developmental domains needing a higher level of performance.* In this method, the team has the option of selecting one or more of these outcomes as a global outcome:

1. *Sensorimotor*: Moves independently and effectively and regulates and uses sensory input for learning.
2. *Emotional and social*: Effectively relates to others and controls emotions and behaviors.
3. *Communication*: Understands and actively and effectively uses verbal and non-verbal communication.
4. *Cognitive*: Understands ideas, effectively solves problems, and actively participates in learning.

*Identify OSEP Child Outcomes.* The outcomes described by the ECO Center (2005) are another set of global outcomes for children that programs may wish to target. These outcomes are not labeled by domain but require skills from each domain to accomplish. They have the advantage of already being transdisciplinary, and TPBA2 Goal Attainment Scale information can be recorded on each FOR by OSEP Child Outcome (see CD-ROM for more information). Because states must report on children's progress toward these outcomes, the TPBA2 subcategories for each of the domains of development were analyzed for their contribution to these global outcomes. Programs receiving IDEA funds



and using the OSEP Child Outcomes for accountability purposes may want to use these outcomes to plan intervention.

At the time of publication, the three outcomes identified by OSEP include the following (ECO Center web site: [http://www.fpg.unc.edu/~eco/pdfs/ECO\\_COSF\\_Training2-1-07.pdf](http://www.fpg.unc.edu/~eco/pdfs/ECO_COSF_Training2-1-07.pdf)):

1. Has positive social relationships.
2. Acquires knowledge and skills.
3. Takes appropriate actions to meet own needs.

Please note that OSEP requirements for accountability may change or be refined over time. If you choose to use these outcomes, it will be important to double-check with the ECO Center to make sure the outcomes you are using are still accurate.

*Identify personal outcomes.* The third option is the approach that traditionally has been used in programs for professionals and families to write their own outcome(s) that are meaningful for their child and family. In this option, the family is asked what goals they have for their child, and their answers become the “long-term” goals. Although there is nothing wrong with this approach, it precludes agencies from looking across children and programs at progress toward uniform global outcomes (i.e., outcomes that are the same for all children). If every child has a different desired outcome, comparative measurement of the progress of all children is more difficult. Narrowing global outcomes down to three or four enables comparison of all children on their progress toward these outcomes. The intent is to enable program administrators and legislators to examine the overall effectiveness of programs. Programs that are not bound by federal, state, or agency requirements, however, may still prefer to use this more open-ended approach.

All of the methods discussed here can be used separately or in combination. The approaches are meant to address both qualitative (developmental processes) and quantitative (age-level skills) types of outcomes. Depending on the child and family, the most useful means can be chosen. Once the outcomes are determined, they are written on the Team Intervention Plan (see Appendix in the *Administration Guide for TPBA2 & TPBI2*). The information included on this form helps determine services needed and becomes the first document in the intervention plan. Figure 2.1 illustrates the global outcomes selected by Ben’s parents and teacher.

## Step Two: Identify Priority Subcategories Contributing to the Outcome

Once the outcome has been selected, the next step is to break down that “big” outcome in areas that will contribute to reaching the ultimate goal. This is easily done by looking at the subcomponents of the outcomes chosen and identifying which subcomponents are priorities for the child and family. For two of the methods of identifying outcomes (FORs by TPBA2 Domain and by OSEP Child Outcome), a corresponding approach to determining contributing skills is provided. For the personal outcomes approach, the team must use professional judgment to determine subcomponents of the outcomes selected. If either the FORs by TPBA2 Domain or FORs by OSEP Child Outcomes are used, these can be easily be referenced. The team should look at the subcategories listed on the FOR and prioritize among the subcategories those that are the most important for the child. The team already rated subcategories as part of TPBA2, so unless parents view the rating differently (which should be discussed), a look at each profile of ratings will provide a picture of areas that may need intervention. After discussing which areas take precedence, a selection is made for intervention. These are

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### TPBI2 Team Intervention Plan

Child's name: Ben B. Birth date: \_\_\_\_\_ Age: 3 years

Person determining intervention plan: \_\_\_\_\_ Date: 2-07-06

Relationship or role: \_\_\_\_\_

Projected month of reevaluation follow-up: \_\_\_\_\_

Contact person: \_\_\_\_\_ Phone: \_\_\_\_\_

**Directions:** Select the TPBA2 Domain Outcomes column *OR* the OSEP Global Outcomes column. Prioritize as a team (1, 2, 3, 4) one or more outcomes below based on their importance for the child in home and community (H/C) and school and/or child care (S/CC) settings. The priorities may be the same or different, depending on the child's needs in each environment.

TPBA2 Domain Global Outcomes			OSEP Child Outcomes		
H/C	S/CC		H/C	S/CC	
		Ability to move independently and effectively and to regulate and use sensory input for learning (Sensorimotor Development)			Positive social-emotional skills
1		Ability to effectively relate to others and control emotions and behavior (Emotional and Social Development)			Acquisition and use of knowledge and skills
2	1	Ability to understand and use verbal and nonverbal communication (Communication Development)			Appropriate behaviors to meet needs
	2	Ability to understand ideas, solve problems, and learn (Cognitive Development)			

**Figure 2.1.** Ben's priority outcomes.

then recorded on the Team Intervention Plan under the priority subcategories selected for intervention along with the agreed-on ratings. In addition to ratings, age levels can be noted if the parents desire. Age levels will note the age range at which the child was primarily functioning. In some cases, no age levels are available because the subcategory is qualitative rather than age-based. (See Figure 2.2 for an example of this section of the form.)

### Step Three: Determine Baseline

A unique approach to identification of intervention targets and progress monitoring was developed for TPBI. This approach has combined a Goal Attainment Scale and an evaluation rubric (either). Both the TPBA FOR and the FOR by TPBA2 Domain or FOR by OSEP Child Outcomes contain a Goal Attainment Scale for each subcategory of each outcome. The TPBA2 subcategories from each of the domains that directly relate to the global outcome are listed in the column on the left side of each FOR. Once the team identifies desired outcomes, the FOR can be used to identify where the child is on the

scale for a particular subcategory or across all subcategories. By identifying where the child is on the FOR, the team can help families determine what targets of intervention will assist the child in reaching the selected outcomes.

Looking at the Goal Attainment Scales often helps parents narrow down their child's functional level without feeling the stress and sadness that looking at TPBA2 Age Tables may elicit. On the Goal Attainment Scales, parents circle where they see their child (e.g., "I think he's between a 3 and a 5 on Regulation of Emotions and Arousal States. He still has bad emotional outbursts, but he's beginning to start to go off by himself to calm down after I hold him and talk to him. So I think I'd call that a 4"). After reviewing the Goal Attainment Scales for the areas selected, the team is ready to identify targets for intervention. Only those Goal Attainment Scales with comparatively lower ratings for a given child need to be targets of intervention. For children with relatively flat patterns, with almost all ratings falling at the same level, a target may be chosen based on additional assessment data and the parent's priorities. Although many items could be selected, it is wise initially to select two or three priority subcategories. Each subsection within a given chapter of TPBI2 has a Goal Attainment Scale for its subcategory. If desired, the team can copy each Goal Attainment Scale for the subcategories selected as priorities and combine them to make the child's own mini-rubric as part of his or her file.

By identifying where the child is on the FOR, the team can help families determine what targets for intervention will assist the child in reaching the selected outcomes. (See Figure 2.3 for an example of a completed FOR by TPBA2 Domain and Figure 2.4 for examples of a rubric developed for Ben from the priorities and ratings selected.) By making the child's own FOR, the priorities are identified more easily and seem less overwhelming. As Ben begins to use more words to communicate, and listens and understands more, he will be better able to control his emotions, communicate his needs, follow others' instructions, and learn new words. This, in turn, will help him progress in other areas of development, such as play, social interaction, and problem solving. Because of the transdisciplinary nature of development, it is not necessary to specify intervention priorities in every domain and subcategory.

The three components of outcomes assessment combined—global outcomes (GO), the FOR, and the functional intervention targets (FITs)—provide the basis for evaluat-

After prioritizing outcomes for the child, look at the Functional Outcomes Rubrics (FORs) that correspond to the outcomes with the highest priorities. Examine the Goal Attainment Scales that were completed during the TPBA that are listed on the FOR selected. Discuss the assessment/intervention areas that have the lowest ratings with the family. Determine what subcategories across the domains identified are the most important to helping the child's learning and development. Indicate the subcategories selected for intervention and the rating given on the line next to the subcategory. Place the age level for that subcategory (if available) on the following line.

The priority subcategories selected for intervention:	Rating	Age level
<i>Regulation of emotions and arousal states</i>	1	12–15 months
<i>Behavioral regulation</i>	3	12–15 months
<i>Expressive language</i>	4	12–15 months
<i>Conceptual knowledge</i>	3	12–15 months

**Figure 2.2.** Ben's priorities at home and school (from his Team Intervention Plan).

ing developmental progress and planning the next steps. These components can be remembered by the acronym “GO FOR IT.” The following section describes developing appropriate intervention targets for the priorities that are identified.

### Step Four: Write a FIT or Objective

Professionals in the field of EI and ECSE are long used to writing goals and objectives. These goals and objectives, however, often are not functional. Goals such as “Will increase vocabulary” could be written for anyone. Objectives taken off of a checklist, or a missed test item such as “Will put six blocks in cup,” do not lend themselves to developing functional skills. Why do you want the child to put blocks in a cup? What skills are you trying to develop? And who needs blocks served in a cup, anyway? The field of EI has wisely moved toward trying to support the development of functional skills as they are used in a child’s everyday life.

The same, unfortunately, is not always true of preschool, where the push for testing academic skills to meet the requirements of the No Child Left Behind Act of 2001 (PL 107-110) tends to compel teachers toward purely academic targets and away from functional skills. TPBI2 attempts to address both. The TPBA2 Observation Guidelines, Goal Attainment Scales, and FORs address developmental processes and functioning and qualitative aspects of learning. The TPBA2 Age Tables provide developmental sequences and skills specific to various developmental age ranges, including academic skills.

As with TPBA2, TPBI2 is meant to address both skills and processes to maximize a child’s functioning. The FITs that are written can, and should, relate to both. The team should try to ensure that families and teachers address a range of developmental priorities, not just academic skills. Team members may need to provide information about foundational learning and social processes, the importance of language basics to literacy, the importance of sensory and motor development to learning, and so forth. Use the information gained from TPBA2 so that family members and professionals understand how these foundations contribute to academic, social, and athletic skills.

Once the team has determined priorities jointly, the more difficult step is turning those priorities into functional, measurable objectives. Once a priority is established, the parent is asked about next steps.

#### **BEN**

*After his mom, Marcy, rated her child, Ben, on her priority of Emotional Regulation, a team member asked, “What would you like to see him do for next steps in controlling his emotions?” Marcy said, “Well, I’d like Ben not to blow up at all, but I know that’s not going to happen any time soon! I guess I’d like for him to not need me to have to help him so much. I spend a lot of time holding him! Maybe if Ben could find another way to calm down that didn’t need me. That would be a good step.”*

*The team member then said, “You said Ben ‘loses it’ at least once an hour right now. How about if we also reduce the number of tantrums he has?”*

*“I’d nominate you for sainthood,” Marcy said. After further discussion, the team constructed the following FIT:*

For 1 month, Ben will have three or fewer tantrums per day at home, that last less than 10 minutes each, and he will be able to calm himself using a calming object or a “safe spot.”

**TPBA Play-Based TPBI**

## Functional Outcomes Rubric (FOR) by TPBA2 Domain: Emotional and Social Development

Child's name: Ben B.

Age: \_\_\_\_\_

Birth date: \_\_\_\_\_

Date of initial rating: \_\_\_\_\_

Person(s) completing the form: \_\_\_\_\_

**Outcome: Ability to effectively relate to others and control emotions and behavior**

**Directions:** The following transdisciplinary Goal Attainment Scales address the skills necessary for effective emotional and social development. Family members, other caregivers, professionals who provide education or therapy services, or the team as a whole can complete the rubric. For each subcategory, circle the corresponding number that most characterizes the child's behavior or skill. Subsequent assessment findings are noted in the columns marked 2nd and 3rd rating. Please note that the Goal Attainment Scales on the TPBA2 Observation Summary Forms are the same as these. The ratings assigned on the Observation Summary Forms are supposed to be the initial rating here, and the "Date of initial rating" is the same as the "Evaluation date" on the Summary Forms. More than three can be given if the team desires.

TPBA2 subcategory	Level of the child's ability as observed in functional activities								Date of 2nd rating: _____	Date of 3rd rating: _____
	1	2	3	4	5	6	7	8		
<b>Emotional expression</b>	Expresses emotions related to comfort and discomfort using sounds and physical movements.		Experiments with different types, levels, and forms of emotional expression to communicate needs.		Often expresses extremes of emotions to get needs met and to elicit a response from others.		Expresses full range of emotions, with the predominant emotions being positive.		Easily communicates full range of emotions in appropriate contexts, with an acceptable level of intensity.	
<b>Emotional style/adaptability</b>	Does not adapt to new people, objects, events, or changes in routines without extreme, long-lasting emotional reactions.	2	Adapts to changes in people, objects, events, or routines with much verbal preparation and environmental support.	4	Adapts to changes in people, objects, events, or routines using motivating, logical connections to the transition situation.	6	Adapts to changes in people, objects, events, or routines with verbal preparation.	8	Adapts to new people, objects, events, or changes in routines independently, with an appropriate amount of caution and emotional reaction.	
<b>Regulation of emotions and arousal states</b>	Has a difficult time controlling arousal states and emotions; needs extensive environmental support and physical and verbal support from a caregiver. Regulation takes more than 1 hour.	2	Is able to control arousal states and emotions in a soothing environment when receiving physical and verbal support from a caregiver. Regulation takes 30–60 minutes.	4	Is able to control arousal states and emotions in a quiet environment or when physical or emotional support is received from an adult. Regulation takes 15–30 minutes.	6	Is able to control arousal states and emotions with self-regulatory strategies (e.g., a blanket or special toy) or verbal suggestions from an adult. Regulation takes just a few minutes.	8	Is able to independently control arousal states and emotions in a way appropriate for the situation.	

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**Figure 2.3.** Ben's TPBA FOR in the emotional and social domain

(continued from previous page)

TPBA2 subcategory	Level of the child's ability as observed in functional activities							Date of 2nd rating: _____	Date of 3rd rating: _____
	1	2	3	4	5	6	7	8	9
<b>Behavioral regulation</b>	Does not understand or respond to adults' requests to stop actions.		Beginning to understand what not to do, but does it anyway. Resists adults' input and control.		Understands right and wrong with adult input, so sometimes chooses appropriate behavior. Is beginning to look to adults for input on what to do.		Independently understands right and wrong and chooses appropriate behavior most of the time, but needs adult assistance to choose and manage behavior.		Chooses appropriate behavior and responds to adults' requests most of the time; tolerates a balance of control.
<b>Sense of self</b>	Is dependent on others to meet needs.	2	3 Tries to access toys and people, shows adults objects, and smiles when others respond to his or her actions. Does not request assistance when needed.	4	5 Focuses on specific goals related to movement, objects, or interactions with people. Often requests help or needs reinforcement to maintain effort.	6	7 Is motivated to independently reach multiple types of goals; is persistent, confident, and pleased with successful efforts. Knows when help is needed.	8	9 Is goal-oriented, persists in the face of challenges, feels confident of success and proud of accomplishments. Aware of own strengths and weaknesses.
<b>Emotional themes in play</b>	Demonstrates limited range of emotions in play and/or lacks awareness of or concern for emotions of others in the play situation.	2 2	3 Demonstrates a range of emotions in play through verbal and non-verbal means, but emotions reflect reaction to play itself rather than the meaning of the play.	4	5 Recognizes and labels own and others' basic emotions in play situations. Has repetitive unresolved emotional themes in play.	6	7 Is able to attribute emotions to inanimate characters in dramatic play, and uses play themes to experiment with resolving emotional conflicts.	8	9 Is able to appropriately represent own and others' emotions and can resolve emotional conflicts in interactions and themes within symbolic and sociodramatic play.

(continued)



**Figure 2.3.** (continued) FOR by TPBA2 Domain: Emotional and Social Development **TPBI2**

TPBA2 subcategory	Level of the child's ability as observed in functional activities							Date of 2nd rating: _____	Date of 3rd rating: _____
	1	2	3	4	5	6	7	8	9
Social interactions	Watches caregivers and reacts to their initiations with vocal or physical responses.		Is responsive to affection and initiates positive interactions with others. May have difficulty with separation from key caregivers.		Takes turns in prolonged interaction with family members and familiar people. May be shy or anxious with unfamiliar people. Plays alongside peers but may have frequent social conflicts.		Primarily has positive reciprocal relationships with family members and peers in daily activities. Is able to initiate interaction and engage a peer for several minutes. Uses adults for conflict resolution.		Discriminates among familiar people and strangers, has close relationships with family, and maintains several friendships. Is able to initiate and maintain interactions in reciprocal, goal-oriented play and can negotiate conflict situations independently.

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TPBA2 Subcategory	Level of the child's ability as observed in functional activities							Date of 2nd rating:	Date of 3rd rating:
	1	2	3	4	5	6	7	8	9
<b>Regulation of emotions and arousal states</b>	(1) Has a difficult time controlling arousal states and emotions; needs extensive environmental support and physical and verbal support from a caregiver. Regulation takes more than 1 hour.		Is able to control arousal states and emotions in a soothing environment, when receiving physical and verbal support from a caregiver. Regulation takes 30–60 minutes.		Is able to control arousal states and emotions in a quiet environment or when physical or emotional support is received from an adult. Regulation takes 15–30 minutes.		Is able to control arousal states and emotions with self-regulatory strategies (e.g., a blanket or special toy) or verbal suggestions from an adult. Regulation takes just a few minutes.		Is able to independently control arousal states and emotions in a way appropriate for the situation.
<b>Behavioral Regulation</b>	1 Does not understand or respond to adults' requests to stop actions.	2	(3) Beginning to understand what not to do, but does it anyway. Resists adults' input and control.	4	5 Understands right and wrong with adult input, so sometimes chooses appropriate behavior. Is beginning to look to adults for input on what to do.	6	7 Independently understands right and wrong and chooses appropriate behavior most of the time, but needs adult assistance to choose and manage behavior.	8	9 Chooses appropriate behavior and responds to adults' requests most of the time; tolerates a balance of control.
<b>Language Production</b>	1 Expresses needs reflexively (e.g., crying, grimacing, body movement).	2	3 Uses eye gaze, facial expressions, body movement, gestures, and vocalizations to communicate.	(4)	5 Uses gestures, vocalizations, verbalizations, signs (words, word combinations, or phrases), and/or AAC to communicate.	6	7 Uses gestures, words, phrases, signs, and/or AAC to produce sentences (not grammatically correct) and to ask and answer questions.	8	9 Consistently uses well-formed sentences and asks and answers a variety of questions.
<b>Conceptual Knowledge</b>	1 Recognizes familiar sounds, smells, tastes, people, actions, and objects.	2	(3) Notifies salient properties, sees similarities and differences, and has simple labels for some animals, people, objects, actions, and events.	4	5 Recognizes, discusses, or uses concrete similarities and differences to categorize or group animals, people, objects, actions, and events into constructs, such as type, location, use, relationship, and/or causality.	6	7 Recognizes, describes, and organizes thoughts and actions by both concrete and abstract concepts, and categories. Is forming a classification system into which new concepts and rules are structured and related.	8	9 Describes, compares, differentiates, and understands both featural and dynamic (e.g., who, where, when, why and how) aspects of concepts. Has an understanding of logical relations among mathematical, physical, biological, psychological, and literacy concepts, and can share ideas through symbolic representations.

Figure 2.4. Ben's rubric for home and school

In order to know if a child has done a skill “well enough” to consider it accomplished, it is important to know what the child needs to do functionally in the environment and what constitutes “success.” What quality of skill is needed? How many times must a skill be seen at this level of quality? Under what circumstances? As the number of intervention targets being addressed at one time is limited to 3 or 4, it is worth the time to think out what exactly the child needs to do to function better in his or her life, and what level of skill or behavior will demonstrate successful functioning. This way, everyone is on the same page.

### **Step Five: Select Activities, Settings, and Routines**

Step Five is the beginning of what is carried out in Step Seven, identifying and creating strategies. Before determining where and how intervention supports will be provided, an understanding is needed of what daily life is like for the child. Once the targets for intervention are identified, the team needs to address how the intervention will take place. The TPBI process is one that should occur in natural environments, within natural interactions, and with targets embedded in daily experiences, activities, and routines. The planning tools provided are meant to be used in consultation with families, caregivers, teachers, or therapists to guide implementation of intervention in a way that is consistent with these philosophical tenets.

Several steps are needed to complete the Team Intervention Plan (see Appendix in *Administration Guide*). These are listed on the Team Intervention Plan for team members and the family, but the steps also will be iterated here.

It is important to embed whatever interventions are planned into the child’s actual life, rather than provide only treatment, therapy, or education that does not carry over into functional activities. Therefore, another critical aspect of planning intervention is talking about actual situations, routines, events, and activities in which intervention could 1) help the child function better, 2) help the family members or adults function better, 3) capitalize on the child’s strengths, and/or 4) capitalize on the family members’ or adults’ strengths. In addition, the team should consider including difficult interventions in ways that could be more fun or pleasurable; fun activities that provide an opportunity for including more learning; or activities that occur frequently over the course of the day or week, and thus offer opportunities for practice. The initial conversation begins with the team but needs to be extended into a more protracted discussion in a more personal and private level before the actual start of intervention.

### **Step Six: Complete the Team Intervention Plan**

The previous steps contribute to completing the Team Intervention Plan. Once the functional intervention targets (FITs) are specified, the team can then determine how intervention will take place to address them. Designation of who will be the primary intervention facilitator and the roles of various team members is important to ensure that everyone knows what will happen and in what ways support will be provided. See Figure 2.5 to see how Ben’s Team Intervention Plan was completed.

### **Step Seven: Identify or Create Strategies**

Because preliminary discussions with families, caregivers, and teachers can be quite lengthy, it is best to plan discussion time outside of a formal meeting to talk about strategies to use in intervention. Have an in-depth conversation with key adults about their day, the fun times, the stressful times, the moments of joy, and the moments of desperation. In short, talk about the good, the bad, and the ugly. It is important to discuss not just the negative aspects of the day, because some of the most joyous times are the best

for incorporating language, movement, social interaction, and conceptual thinking. Humor is a wonderful way to motivate children. Discussion of these times leads easily to a discussion of strategies that can be incorporated into each type of situation.

The fun part of working in early childhood/EI and ECSE is that professionals are able to be creative. They have a storehouse of knowledge and ideas, but every child, every family, and every situation is different, and what works for one may very well not work for another. The more ideas the intervention facilitators have, the better. Once the team has determined several FITs on which to focus, and they know the fabric of the child's daily life, they are ready to think about what strategies will help the child and family or teacher be successful.

*TPBI2* is meant to be a source for ideas—a jumping off place for professionals to problem solve with key adults in the child's life. There is no one way to use *TPBI2*. It is a resource, not a cookbook. It is especially helpful for people in transdisciplinary roles, because every discipline is not represented during each visit. This is a team process, so conversation about the child and family with the whole team is critical. During team discussions, have each professional review various strategies in his or her domain of *TPBI2* and talk about how certain strategies might be useful to the child or family. Using collaborative problem solving, the team ideas will help all interested parties to generate a plan of action or, more likely, numerous plans for how the day can be full of special moments for teaching and learning. *TPBI2* serves as a resource for ideas across all domains and is a reminder for all team members of how to incorporate holistic strategies. It is important to stress that families are not being asked to become therapists. They are being supported with strategies that can make their own lives and those of their children fuller, more meaningful, and more successful just by doing what they already do in slightly different ways.

In the same way that the number of targets for intervention should be limited, the number of strategies selected to be tried also should be limited so as to not overwhelm the family and to clarify what strategies are having a positive effect. Use the TIP Strategies Checklists as a basis for beginning discussion, spending more time on one or two ideas with which the adults involved in the intervention are confident.

## **Step Eight: Individualize Environmental and Interpersonal Strategies**

As discussion proceeds, what started out as general strategies, suggestions, observations, or ideas need to be developed into an individualized approach for the child and family or the teacher. The intervention facilitator and other team members will want to observe what is happening, talk about the parents' perceptions, and perhaps try new strategies through experimenting or demonstrating for the parents. All of these efforts build insights into how the child and adults in the child's life respond and learn. Individualization for adults may involve providing reading material, visual guides, and examples; using video for feedback; or going out into new environments to try novel experiences. The team should take time to get to know the family as people, not just as "clients," so that interventions devised will have an increased likelihood of success. At the same time, professional boundaries will need to be maintained.

## **Step Nine: Write Concrete Examples**

Writing down ideas gives everyone a concrete reference. Much is discussed in a short time, and just as much is forgotten. After a couple of initial discussion and brainstorming sessions with key adults, it is useful to put a more specific plan down on paper. Write down one or two of the FITs that were developed for the Team Intervention Plan, then begin talking about the day and how the strategies discussed previously may be implemented. Use the Collaborative Problem-Solving Worksheet (CPSW) (see Appen-

### Functional Intervention Targets

1. For 1 month, Ben will have three or fewer tantrums per day at home that last less than 10 minutes each, and he will be able to calm himself using a calming object or a “safe spot.”
2. Once Ben is giving the person who is speaking eye contact, he will respond to a simple one-step request by doing what is asked, within two repetitions of the request, 75% of the time for 1 month.
3. Ben will be able to request what he wants using gestures and simple labels for two new common objects in his environment each week for 1 month.
4. Ben will be able to use appropriate actions on specific objects or toys five consecutive times once the actions are demonstrated and he has had practice with using the object or toy in a functional way.

#### A. How the above Home and Community Services will be provided:

**By whom:** The speech-language pathologist, Judy P., will serve as the primary intervention facilitator.

**Frequency/intensity/duration:** Judy P. will make home visits every other week to consult and coordinate intervention strategies. Visits will become less frequent as the family and teacher feel things are progressing well.

**Role of intervention facilitator(s):** Judy P. will observe the situations in the home and school that are most difficult for Ben. She will provide feedback, suggestions, demonstration, and consultation as new strategies are tried. Other team members will make visits to provide additional ideas as needed. Judy will occasionally videotape situations to take to team problem solving meetings.

**Role of family members:** Mr. and Mrs. B. are the key people in Ben’s life and, as such spend many hours interacting with him. They will lead the intervention by trying various strategies related to the identified goals for Ben. They will monitor what works and what does not so that they can share progress and problems with the intervention support team. They will maintain ongoing communication with Ben’s teacher to ensure consistency of approaches.

#### B. How the above Child Care/Early Education Services will be provided:

The intervention team will observe classroom routines and provide consultation to the teacher to coordinate intervention and help ensure consistency between home and school.

**By whom:** Judy P., SLP, is the primary intervention facilitator.

**Frequency/intensity/duration:** Classroom visits will be made every other week, alternating with home visits.

**Role of intervention facilitator(s):** The intervention facilitator will assist by demonstrating, providing needed support materials or readings, doing joint problem solving, and involving other team members as needed.

**Role of educators/caregivers:** The teacher is the primary provider in the classroom. Intervention services will be provided in the classroom, with the intervention facilitator as a support to the teacher.

**Projected month of reevaluation follow-up:** 5/08

**Contact person:** Judy P.

**Phone:** 666-7777

**Figure 2.5.** Ben’s functional intervention targets and team roles.

dix in *Administration Guide*) format. *TPBI2* is, once again, a helpful reference. When completed, the CPSW serves as a visual reminder of ideas, or tips, for all to keep in mind when interacting with the child. Dunst found that visual reminders serve to increase the use of the ideas presented (Dunst, 2001). See Figure 2.6 for an example of a section of Ben's CPSW.

The team should then consult with the family and other service providers as intervention takes place and provide further explanations, models, or feedback as needed. The worksheet can be modified continually, with more intervention targets added as progress is made or new strategies added if progress is slower than desired. The CPSW also serves as a way to talk about what happened since the last discussion with regard to other areas of development, environmental changes, and whether specific ideas that were written down were successful.

## Step Ten: Share Information

Whether or not the child participates in child care or school, there are usually other important adults in the child's life. Even if these other people have not been included formally in the intervention process, the child will benefit from having congruent strategies across people and contexts. Families should be encouraged to inform and coach others who spend a lot of time with the child in the strategies the families themselves are learning. With the family's permission, the intervention facilitator also may play an important role by including others in the child's life in informal discussions, information through written materials, or inclusion in support or information groups.

## Step Eleven: Implement Intervention

Every part of the TPBA2/TPBI2 process is part of intervention. Beginning with TPBA, when the strategies that seem to promote higher levels of thinking and action are explored; through the assessment discussion and intervention planning process, when the family's and team's experiences are shared; to when actual day-to-day strategies are implemented, evaluated, and modified, TPBA2 & TPBI2 guide the evolving process. The ongoing relationship with the child, family, and teachers provides the basis for being part of a highly rewarding, if at times frustrating, process. The role of the professional as intervention facilitator takes many forms, and on any given day this person will listen, talk, demonstrate, practice, or coach. Intervention is full of surprises. Some days, no one will be there when the professional shows up. Some days, nothing will go well. Other days, a first word will be said or a step will be taken. The professional needs to be ready to assume all roles as needed and, in addition, help the key adults build outside networks; serve as an advocate with other agencies; provide access to needed resources; stay informed on legal issues and within ethical boundaries; and on top of all that, keep excellent records on visits, with detailed progress notes (Klass, 2003).

## Step Twelve: Evaluate Progress

Evaluation also is an ongoing process. As with the rest of the intervention process, documentation of progress should be a joint effort. In Chapter 9 of the *Administration Guide*, several approaches are presented to help in collaboration. In addition to informal checks and discussions with family members, caregivers, and teachers, more formal measures are needed. Depending on the age of the child and agency requirements, official evaluation may take place two to three times per year. Progress monitoring can be done using the individual child's rubric (see Figure 2.4). Both home and school or child care can monitor progress on the selected priorities. Even though only a few priorities were selected, all areas are interconnected, and progress on these areas will un-



TPBA Play-Based TPBI  
TPBC™

## TPBI2 Collaborative Problem-Solving Worksheet (CPSW)

Child's name: Ben

Date: 02-07-06 For home/community ☒ For child care ☐ For school ☐

Person(s) completing the form: \_\_\_\_\_

- In the first column, write the functional intervention targets (FIT) that were selected and recorded on the Team Intervention Plan after the assessment.
- In the second column, write related areas that also need to be addressed as part of accomplishing this target.
- In the third column (T), list priority times of the day, routines, or activities when the FITs can be addressed. In the fourth column (I), brainstorm possible interactions supports. (Refer to TPBI2 under the domain and intervention subcategory related to that target for suggestions.) In the fifth column (P), brainstorm potential environmental modifications that could be tried. For each column, refer to the TIP Strategies Checklists for suggestions.
- At the bottom of the worksheet, indicate any resources that might be helpful for implementing intervention, including reading material, Internet sites, videos, equipment, toys, assistive devices, and connections with community agencies.
- Indicate any assistance needed to implement the intervention and/or access resources.

Functional intervention targets and subcategory	Related areas	T Times for natural intervention	I Interactions that support development	P Potential environmental adaptations
Ben will be able to request what he wants using gestures and simple labels for two new common objects in his environment each week for 1 month.	Cognitive: understanding concepts Language: using nouns to label Social: communicating to a person Motor: using gestures to support communication	Meals: labeling food, utensils Bath: labeling toys, body parts Dressing: labeling clothing, body parts Play: labeling toys, people Books: labeling pictures, real objects, animals	Use simple 1- to 2-word phrases. Obtain eye contact before talking. Touch shoulder, wait. Hold object near mouth when labeling. Use exaggerated, rhythmical speech. Use gestures or signs to support speech.	Use real objects as cues to what happens next (e.g., key to car for going out). Use pictures of real objects to support labels (e.g., cereal box of Cheerios next to the bowl to help him see relationships between objects and pictures).

**Figure 2.6.** Segment of Ben's Collaborative Problem-Solving Worksheet for home.

doubtedly contribute to progress in other areas. If desired by families or teachers, progress on other Goal Attainment Scales can also be checked.

## WHERE INTERVENTION TAKES PLACE

Not limited to home and school, intervention should take place as many places as possible, as often as possible, and be implemented by as many people as possible. Repetition of new skills across a variety of functional contexts is the key to learning, particularly for children with special needs. In specific cases, additional private or pull-out therapy may be warranted, but even specialized therapies should be integrated into the total picture of the intervention process, so continuity is maintained.

## RESULTS OF SUCCESSFUL INTERVENTION

The desired results of intervention are many. We want children with special needs to become more functional and independent in their daily lives. We want them to become motivated to learn and use new ideas and skills. We want children to be able to give and receive love; to have meaningful friendships; and to share life's activities with joy, sensitivity, and reciprocity. We want children to express themselves in as many ways as they can, with their eyes, their gestures, their body, and their words, through art, music, and movement. We want them to love and participate fully in as many aspects of life as they can. We want the same for their families.

In TPBI2, options are provided for addressing the progress toward outcomes: 1) use of the TPBA2 Age Tables to measure skills accomplished and changes in level of performance, and 2) use of the FORs to measure progress toward global outcomes. Use of both together is recommended.

The FORs by TPBA2 Domain are completed initially by the professionals as part of TPBA2. A 9-point Goal Attainment Scale is included as part of the summary information with each of the subcategories of TPBA2. This is completed by individual professionals on the team during the first assessment of the child. Because most assessments are traditionally done by developmental domain, the scales are arranged by domain (completion by the family, caregivers, and/or educators can be done as well). As noted previously, examining these rubrics and discussing them with parents helps identify target areas for intervention. During intervention planning, either the FOR by TPBA2 Domain or FOR by OSEP Child Outcomes is used to identify global outcomes and priority subcategory outcomes. Whichever Goal Attainment Scales are selected for planning intervention targets and strategies (they are the same in both, just organized differently) should be used for measurement of progress. (See Appendix in *Administration Guide* for both sets of FORs.)

The FORs are designed to help programs measure the child's progress toward attaining global outcomes and identifying new targets after intervention has occurred. To measure progress, the team can re-rate the child on identified target subcategories (as in the child's individual rubric in Figure 2.3) or across all subcategories in a specific rubric for a more comprehensive reevaluation. By doing this, the team can identify what outcomes and targets have been obtained and which outcomes and targets a child needs to work on attaining.

As described previously, the child's FORs should be reviewed on a regular schedule (usually two to three times per year, determined by the intervention team). If progress has been made and the child has moved up on the scale, the team needs to evaluate whether or not new outcomes or targets need to be identified. If the child has not made progress, the team needs to discuss whether new intervention targets, different strategies, or both are needed. When a new plan is made, the Team Intervention Plan and the CPSW should be revised and updated. In the case of federal outcomes monitoring, measurement of progress on global outcomes is done at entry into the program and on exit or transition from EI, to ECSE or a kindergarten or first-grade program. (See the TPBA2 & TPBI2 Forms CD-ROM for additional information.)

The TPBA2 Age Table(s) for identified targets also should be reviewed to determine performance-level changes and examine what specific skills may have been accomplished or are still needed. It is recommended that the professionals and teachers on the team use the TPBA2 Age Tables. Depending on the child's level of functioning, it may be difficult for families to look at the child's functioning age level or skills he or she is missing. For this reason, it is recommended that families use the Goal Attainment Scales and the professionals use the TPBA2 Age Tables. In combination, the two give a good quantitative and qualitative view of the child's level of functioning. There is a par-

adox in the EI/ECSE field that both functional outcomes and measurement of specific skills is desired, but typically age levels are emphasized.

Progress over time can be noted on the Team Assessment of Progress (TAP) Form (see Appendix in *Administration Guide* and Figure 2.7 for Ben's TAP Form). Both the Goal Attainment Scale rating and the child's age level are indicated on the TAP Form. The parent, teacher, or team (individually or together) can indicate where they see the child functioning on this continuum at each reevaluation. This can be done as frequently as is desired. Goal attainment scaling has the advantage of ease of involvement for all participants in the child's ongoing evaluation, because the scales are easy to understand and rate. Examination of this information in combination with information from the TPBA2 Age Tables should provide formative evaluation data as well as summative data at the end of each year, and at transition times. Both formative and summative data should be used to revise and update the Team Intervention Plan for the child.

## STATE AND FEDERAL OUTCOMES MEASUREMENT

Federal requirements for accountability reporting include measuring functional progress (qualitative) for the child as well as progress in closing the gap between the child and same-age peers (quantitative). Both can be measured with TPBA2/TPBI2.

TPBI2 can be used to measure functional, qualitative progress across TPBA2 domain outcomes (see FORs by TPBA2 Domain in the Appendix in *Administration Guide*) or across the OSEP child outcomes that have been adopted by the U.S. Department of Education, Office of Special Education Programs (see the FORs by OSEP Child Outcome in the Forms CD-ROM). During the entry and exit assessments, the team should complete the set of three Functional Outcomes Rubrics (FORs) by OSEP Child Outcome. Each FOR is composed of a series of Goal Attainment Scales for the TPBA2 subcategories that represent skills needed for the child outcome. The team can use the Goal Attainment Scale ratings that have been collected on the TPBA2 Observation Summary Forms. For further information about using TPBA2 and TPBI2 for OSEP Child Outcomes reporting, please refer to the TPBA2 & TPBI2 Forms CD-ROM.

In addition, the TPBA2 Age Tables from each domain indicate quantitative growth against same-age peers. The Age Tables for each priority subcategory, as well as other areas, also can be used to look at progress over time. Reevaluation across the subcategories that have age tables is only needed when the child transitions from one program to another.

The OSEP Child Outcomes Reporting Form and its worksheets, allow the intervention team to document whether the child is making progress toward the global outcomes across five ratings, from no improvement in functioning to functioning at the level of same-age peers. Cumulative data across children enables providers to examine group progress and can contribute to program evaluation.

## CONCLUSION

Transdisciplinary Play-Based Intervention (TPBI2) is a functional approach to intervention that views family members, caregivers, and teachers as key players in the child's intervention program. They are involved in the assessment, in assessment review, in intervention planning, and in implementation and evaluation. Such involvement may lead to more "ownership" and involvement on the part of these important people in the child's life. The movement of intervention out of the therapy room and into the settings where the child needs to use his or her skills is an important shift in the field of early intervention and early childhood special education. This transfer of focus requires a transition in the role of therapists and other related services personnel to one of consultation and support. It requires acquisition of new skills in communicating with

## TPBI2 Team Assessment of Progress (TAP) Form

Child's name: Ben Birth date: 1-15-03 Date: \_\_\_\_\_

Person(s) providing information to complete the form: \_\_\_\_\_

The TAP Form helps the team monitor progress. Using the initial team intervention planning form as a starting point, the key team facilitator completes the TAP form with the significant adults in the child's life. This process should be done for both home and community and school or child care settings, as appropriate.

1. List the *priority subcategories* that were identified on the TPBI2 Team Intervention Plan.
2. Indicate the date the evaluation update was done in the appropriate column (with the first date being the date of the initial assessment). Three dates are indicated below for measurement (more can be added if desired).
3. Help the parents, caregivers, or teachers complete the Goal Attainment Scale (GAS) for each corresponding priority subcategory.
4. Indicate the rating on the Goal Attainment Scale for each measurement time.
5. Using the TPBA2 Age Tables, determine the child's age level for each subcategory at the time of the evaluation update. After completing and updating either the TPBA2 domain FOR or the OSEP FOR (the scales are the same on both FORs but are organized differently), discuss with the family and all providers the areas of progress. The Team Intervention Plan can then be revised by reexamining desired global outcomes, identifying new subcategory priorities, and writing new intervention targets.
6. To translate this information into federal child outcomes reporting categories, refer to the optional CD-ROM, OSEP Child Outcomes Reporting Worksheet and Form instructions.

### Home and Community Evaluation

	Date 1: <u>2-07-06</u>		Date 2: <u>5-28-06</u>		Date 3: _____	
Priority intervention subcategory	Rating on Goal Attainment Scale	Age range	Rating on Goal Attainment Scale	Age range	Rating on Goal Attainment Scale	Age range
Expressive language	1	12–15 mo.	4	18–21 mo.		
Conceptual knowledge	3	12–15 mo.	5	15–18 mo.		

### School and Child Care Evaluation

	Date 1: <u>2-07-06</u>		Date 2: <u>5-28-06</u>		Date 3: _____	
Priority intervention subcategory	Rating on Goal Attainment Scale	Age range	Rating on Goal Attainment Scale	Age range	Rating on Goal Attainment Scale	Age range
Expressive language	4	12–15 mo.	5	18–21 mo.		
Conceptual knowledge	3	12–15 mo.	4	18–21 mo.		

Transdisciplinary Play-Based System (TPBA2/TPBI2)

by Toni Linder.

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**Figure 2.7.** Team assessment of progress for Ben. Excerpted from Transdisciplinary Play-Based Intervention, Second Edition by Toni Linder, Ed.D.

adults, as partners in intervention, rather than recipients of information. It also entails learning how to shift knowledge about the child and share skills in how to intervene to address particular issues influencing the child's development to others—other team members, family members, and educators. TPBI provides a framework for working through this process and also summarizes key interactional and environmental strategies that may be useful across all domains of development. When implemented with a transdisciplinary team in play and in motivating, meaningful daily activities and routines, intervention can assist children to become more independent, more physically and communicatively skilled, more knowledgeable, and more emotionally secure and socially successful.

## REFERENCES

- Bailey, D., & Bruder, M.B. (2005, January). *Child and family outcomes for early intervention and early childhood special education: Issues and considerations*. Menlo Park, CA: Early Childhood Outcomes Center. Retrieved March 15, 2008, from [http://www.fpg.unc.edu/~eco/pdfs/COSFTraining\\_11-7-06\\_module2.pdf](http://www.fpg.unc.edu/~eco/pdfs/COSFTraining_11-7-06_module2.pdf)
- Dunst, C.J. (2001). Participation of young children with disabilities in community learning activities. In M.J. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp. 307–333). Baltimore: Paul H. Brookes Publishing Co.
- Klass, C.S. (2008). *The home visitor's guidebook: Promoting optimal parent and child development* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.
- No Child Left Behind Act of 2001, PL 107-110, 115 Stat. 1425, 20 U.S.C. §§ 6301 *et seq.*
- Sandall, S., McLean, M.E., & Smith, B.J. (Eds.). (2000). *DEC recommended practices in early intervention/early childhood special education*. Longmont, CO: Sopris West.