Clinical Forum

Participation as a Basis for Developing Early Intervention Outcomes

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**Purpose:** This article describes how participation in activities/routines can be used as a basis for understanding children’s communication and language skills and how that knowledge can be extended to collaborate with families and caregivers to develop meaningful early intervention outcomes.

**Method:** The approach is centered on children’s use of communication and language skills to participate in typical activities/routines. Implementation of the approach is based on an understanding of children’s performance abilities/disabilities and their use of those abilities to participate in family-identified activities/routines in their natural environments. Discussion and case examples illustrate how communication and language skills can enhance or enable participation in such activities. Family-centered procedures for gathering information about activities/routines from caregivers are described, and strategies for developing outcomes in collaboration with caregivers are presented.

**Implications:** Participation-based outcomes offer speech-language pathologists an option for embedding skills within important activities/routines, thereby promoting children’s communication and language growth in natural contexts.

**Key Words:** participation based, early intervention, early communication and language intervention, toddlers with communication impairments, family-centered early intervention outcomes

In 2001, the World Health Organization (WHO) endorsed the international classification of functioning, disability, and health (ICF) model of disability and functioning as its framework for measuring health and disability at both the individual and population level (World Health Assembly, 2001). This model considers health and disability in relation to each other and to participation within a context of an individual’s daily life activities. The model represents a shift from the previous WHO medical–social model in which disability was viewed as a function of the person and societal disadvantage to a biopsychosocial model in which disability is viewed as the outcome of the interaction of health conditions and an individual’s context. As stated in the training guide for the ICF (ICF Training Beginners Guide, 2002, p. 3),

This is a radical shift. From emphasizing people’s disabilities, we now focus on their level of health. . .. it acknowledges that every human being can experience a decrement in health and thereby experience some disability. This is not something that happens to only a minority of humanity. ICF thus “mainstreams” the experience of disability and recognizes it as a universal human experience.

When disability is conceptualized as the interaction of health and context, it encompasses a social–ecological perspective (cf. Bronfenbrenner, 1977; Bronfenbrenner & Morris, 1998) of functioning in which context is acknowledged as a factor that mediates the disability. The degree and experience of disability are measured in terms of a person’s functioning in his or her natural environment. At the core of understanding a person’s functioning is an understanding of that person’s ability to participate in essential and desired activities/routines within his or her natural environments, given his or her health status, body structure and function, and unique contexts, including both environmental (e.g., physical and social) and personal (e.g., age, experience, behavior, temperament) factors. Disability is therefore the extent to which impairments in bodily structure create challenges for participation in an activity/routine that is typical in an individual’s environment. As participation in an activity/routine increases, the experience or degree of disability decreases. In contrast, as participation in an activity decreases, or is restricted, the degree of disability increases. Unfortunately, recent reviews of individual family service plan (IFSP) documents indicate that (a) early

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intervention (EI) outcomes are not typically associated with participation, and (b) strategies for achieving those outcomes are infrequently linked to activities/routines in the natural environment. For example, a frequent strategy associated with communication outcomes is for a child to receive speech therapy twice a week (e.g., Hebbeler, Spiker, Morrison, & Mallik, 2008). These types of statements are not consistent with the current ICF model of disability or the construct of participation as a basis for developing EI outcomes.

An approach for developing EI outcomes that is consistent with the ICF model of disability is described in this article. The approach is based on understanding both children’s performance abilities/disabilities and their use of those abilities for participation in the activities/routines that make up their natural environments. Specific and detailed communication and language assessment and intervention strategies and procedures are discussed in other articles appearing in this forum on EI and are not repeated here. Rather, we focus on family-centered strategies that speech-language pathologists (SLPs) can use with their children’s caregivers to learn about participation in family activities/routines and to collaborate with caregivers to (a) determine how communication and/or language skills may enable or enhance children’s participation in priority activities/routines, and (b) develop EI outcomes focused on children’s participation in activities/routines.

The process for developing outcomes focuses not only on a child’s performance abilities or inabilities, but also on the impact those performance inabilities have on the child’s participation in everyday activities/routines. For example, a child who is deaf and communicates only with American Sign Language (ASL) is able to participate in activities/routines successfully when he or she is in an environmental context where a majority of people communicate using ASL. But, when that same child is in an environment where all communication is spoken and nobody is able to sign, the change in the context creates a change in the child’s success in participating.

An increase in participation in an activity/routine often creates opportunities to learn new skills within those activities, which may in turn lead to new levels of participation, thereby establishing a transactional feedback loop. For example, Dillon, age 18 months, has cerebral palsy and is unable to participate in family mealtime because he has to be held by one of his family members. The family member in charge of holding Dillon cannot hold him and also eat his or her own meal. As a result, either Dillon or a family member may end up eating separately from everyone else. But, when positioning is achieved through adaptive equipment, Dillon no longer needs to be held, and his family can enjoy mealtime together. The adaptive equipment promotes Dillon’s participation in mealtime with the rest of the family and affords numerous learning opportunities for social interaction and practice of communication skills during this time. The focus is directly on increasing participation in family activities/routines and less so on isolated skill performance. In other words, the use of skills within an activity/routine impacts the experience of disability and guides the development of intervention outcomes.

**Participation and Young Children’s Communication and Language Learning**

The ICF model for health and functioning is reflected throughout the family of documents created by the American Speech-Language-Hearing Association (ASHA) Early Intervention Committee. In fact, ASHA’s (2008) Roles and Responsibilities of Speech-Language Pathologists in Early Intervention: Guidelines details the roles and responsibilities of SLPs in the provision of EI services. It is acknowledged in the Guidelines document that communication skills are shaped by the dynamic interaction of factors intrinsic to a child and context, and that a central principle of EI is to provide services that are “developmentally supportive and promote children’s participation in their natural environments” (p. 3). Communication, as a process by which meaning is exchanged between two or more persons, is essential for participation in many activities/routines of daily life. During early development, communication, cognitive, social, and adaptive skills are highly interdependent and, as a result, impairment in one area is likely to affect other skill areas as well. Young children with communication impairment may therefore be challenged to participate in activities/routines in their natural environments, and these challenges may encompass overlapping impairment in multiple developmental domains.

SLPs who are providing communication services and support to young children, in collaboration with the children’s caregivers, will need to explore and understand a given child’s communication abilities and associated participation challenges in a broad range of activities/routines in order to develop the most appropriate and meaningful intervention outcomes.

Participation in everyday activities/routines is important for young children because the activities/routines offer primary learning opportunities for the development of communication and other important skills (cf. Campbell, 2004; Dunst, Bruder, Trivette, Raab, & McClean, 2001). When a child’s participation is restricted, so are the learning opportunities available within affected activities/routines because (a) the child is unable to engage in experiential learning and (b) the opportunity to learn through interactions with a caregiver or other interactive partner is limited. This perspective of learning is consistent with both social constructivist (Vygotsky, 1978) and transactional (e.g., Sameroff & Fiese, 2000) theories of learning and development. If participation is enabled or enhanced, then young children can acquire new skills through their experiences while participating in activities/routines with their families and other caregivers. Participation is influenced by the broader
ecological environment, with children’s unique contexts serving as mediators that may enhance or restrict participation in activities/routines (Dunst, 2007).

The importance of focusing EI outcomes, services, and supports on young children’s participation in activities/routines in their natural environments is not new. Part C of the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 34 CFR §303.12(b)) stipulates that EI services for infants and toddlers with disabilities are to be family centered and provided in natural environments that include home and community settings in which children without disabilities participate. Professional consensus documents (e.g., ASHA, 2008; Sandall, McLean, Santos, & Smith, 2005; Workgroup on Principles and Practices in Natural Environments, 2007) have endorsed participation in activities/routines within natural environments as a central feature of recommended EI practices. Different researchers and practitioners have emphasized both the need and effectiveness of providing EI services that are focused on children’s participation and learning within activities/routines in their natural environments (e.g., Campbell, 2004; Campbell & Sawyer, 2007; Dunst, 2007; Dunst et al., 2001; Kashinath, Woods, & Goldstein, 2006; McWilliam, 2010; McWilliam & Scott, 2001; Pretti-Frontczak & Bricker, 2004; Sawyer & Campbell, 2009; Woods & Kashinath, 2007). In this literature, different terms are used (e.g., routines-based, participation-based, activity-based, promoting learning opportunities), but all share a focus on (a) understanding children’s participation in typical activities/routines from their caregivers’ perspectives, (b) collaborating with caregivers to develop family-centered and functional outcomes, and (c) collaborating with caregivers to develop and implement an intervention plan that is embedded within activities/routines chosen by a caregiver.

In this article, we adopt the terminology and processes originally proposed by Campbell (2004) and more recently discussed by Campbell and Sawyer (2007) and McWilliam (2010), and focus on collaboration with families and other caregivers to develop participation-based outcomes. In the following sections, we describe how an SLP can collaborate with caregivers and other team members to understand children’s participation needs in their unique natural environments, use specific strategies to assess children’s participation, and develop and evaluate individualized participation-based outcomes.

**Understanding Participation in Activities/Routines**

The decision of whether an infant or toddler is eligible for EI services usually is based on skill-oriented criteria that are norm referenced (e.g., 1.5 SDs below the mean in two or more developmental areas) or on informed clinical opinion (e.g., severe phonological disorder). Test and clinical data are often accompanied by observational data regarding children’s communication skills and interests; at times, evaluation reports may include some information regarding participation (e.g., when observed in play, speech was rated at 75% unintelligible, and successful communication with the caregiver appeared limited). However, for the most part, it is up to the SLP, the caregiver, and other EI team members (as appropriate) to learn about the child’s participation and collaboratively develop outcomes focused on establishing or enhancing the child’s communication skills within typical activities/routines. Given that participation is based more on young children’s experience in activities/routines, information regarding such is obtained largely from their caregivers, which may include parents, extended family members, child care providers, or other persons identified by families as trusted persons who regularly interact with their children. Information gained from caregivers is supplemented with direct observations of activities/routines in the natural environment.

Through a process that includes informal observations and discussions with caregivers in the children’s natural environments (e.g., home, child care program, family child care home), an SLP can collect substantial information about a given child’s participation in activities/routines and the ways in which communication skills can enhance and/or enable participation. A key component of this process is to understand contextual factors and how they may enhance or constrain participation. As an example, consider the case of Donald during snack time at his child care center. Donald is 2 years old and is eligible for services due to a severe communication delay and an associated intellectual disability. One of his child care providers reports that Donald does not use any words, vocalizes infrequently, and often throws his food on the floor during snack time. After observing Donald during snack time, the SLP suspects that Donald may be trying to make food choices by looking and occasionally extending his hand toward a specific snack item. However, the SLP observes that the cues are subtle and not easily interpretable. The SLP further observes that Donald’s subtle cues are rarely noticed by the caregiver, who has several other children with challenging behavior to monitor and feed during snack time. Because the caregiver does not appear to recognize Donald’s cues, Donald infrequently gets the food he seemingly prefers and also produces the unacceptable behavior of throwing the food he is given on the floor.

The SLP’s observation not only confirms the caregiver’s report, but it also suggests that Donald may attempt to make a food choice, or get a caregiver’s attention, but fails to do so. In this case, the SLP might hypothesize that Donald’s lack of success in communicating his preferences, coupled with the context of multiple challenging children that seems to prevent the caregiver from noticing Donald’s signals, is a variable that restricts Donald’s participation in the snack time routine. That is, Donald’s limited communication skills interact with the context to restrict his participation in snack time.

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time. Adjustments in the context may improve Donald’s participation. For example, making Donald’s child care providers aware of his potential attempts to indicate a food preference/selection during snack time may enhance Donald’s participation, build his social interaction and communication skills, and also reduce an undesirable behavior (i.e., throwing food on the floor).

Key data sources for understanding young children’s participation are their caregivers’ perceptions and descriptions of activities/routines that make up their daily lives. In gathering this information, it is important to understand activities/routines that are challenging for caregivers and their children as well as those that are going well and serve as a source of enjoyment for both the children and their caregivers. Activities/routines that are difficult for a caregiver–child dyad necessitate outcomes that are focused on enabling participation in the activity/routine in order to reduce stress for the caregiver and child and ultimately create learning and practice opportunities for communication and other important skill areas (e.g., social, cognitive, adaptive). When participation in an activity/routine is limited, it becomes a restrictive context for learning new skills. Hence, the focus of intervention is on improving participation. When applying this perspective to improving young children’s communication skills, the caregiver and SLP collaborate to identify those situations where (a) communication breakdowns create participation difficulties, and (b) children’s communication skills can be facilitated and consequently enable or enhance participation.

The following excerpt is from a conversation between an SLP and Megan’s caregiver (CG), who is her mother. The topic is focused primarily on bath time, which is not going well. Megan is 20 months old and uses some gestures to communicate but has not yet produced any words. She has a diagnosis of developmental delay of undetermined etiology.

SLP: I noticed from your IFSP checklist that you indicated bath time is a problem. What makes bath time difficult?
CG: Oh, it’s ok. We get it done
SLP: How do you get it done?
CG: You know, it pretty much goes the way I expect or have gotten used to, but it is no fun. I just wish it were easier. Megan cries when I put her in the tub of water, cries when I wash her, and then cries when I take her out and dry her off. I don’t think she likes the feeling of water. Then, getting jammies on is just more of the same, and by this time, she is so upset that it is almost impossible to get her dressed. She just hates this. I wish I could get her to talk to me instead of screaming. You know, I am at the point where I try to go as fast as possible to get it over with for both of us, but I think that makes it even more unpleasant for her. I just don’t know what to do.

SLP: So this is maybe something we could work on—figuring out some things you could try so bath time wouldn’t be so stressful for you and Megan.
CG: I have thought about this a lot. I try to get through the bath as quickly as possible because she hates it so much. I don’t think she likes the rush job, but I tried going slower and it didn’t really seem to make a big difference.
SLP: What happened when you tried to slow down the bathing?
CG: Well, I tried to let her know what I was going to do before I did it. So I would tell her that I was going to put soap on her feet and wash, then her hands, and then her hair. I had read about how young kids sometimes do better if you let them know what is going to happen before you do it. She might have cried a little less, but she still cried.
SLP: So you had a little success with slowing down because she cried less, but not as much success as you had thought you might have?
CG: That’s it. There are days when I feel like I will never figure this out.
SLP: Obviously you want Megan to stop crying when you are bathing her. Is there anything else you would like to see happen during bath time?
CG: Definitely no crying. I hadn’t really thought much about anything else. Hmm, it would be great if she could like bathing. Her sister liked it a lot when she was little, and it was a fun play time for both of us.
SLP: So do you think if we could figure out something that Megan would enjoy during bath time, she would cry less?
CG: Well, I don’t know. But if there was something that was fun, I might be able to get her in the tub willingly, and maybe she might not cry as much.
SLP: Have you thought about what kinds of things or activities might be fun for Megan to do in the bathtub?
CG: A little bit. She does like those animals you can stick on the wall around the tub, and I have them in the bath bin, but when I try to get her to stop putting them on the wall so I can wash her, she doesn’t like it at all, and usually the crying starts. When this happens, I just go ahead and get the bathing done so she can get out.
SLP: I think I get the picture. There are some things that Megan may like to do in the tub, but moving from playing in the tub to bathing in the tub is hard for her. I wonder if it would help if we could figure out a way to give her a little more control and make some choices.
CG: It sure would, but she can’t really talk yet so I’m not sure how to do that. I am desperate. If you could help me figure this one out, it would make such a difference for me—and give me some fun time with Megan’s older sister—like I could read her a book.
at bedtime. I can’t do this now because Megan takes up all the evening time.

In this excerpt, it is apparent that the bath time routine, which happens in the evening, is a significant challenge for Megan and her caregiver. Further, the caregiver stated that the challenge of getting Megan bathed reduces her availability to spend time with Megan’s older sister. Through the caregiver’s description of what happens, the SLP learns that (a) Megan actively resists bathing but may enjoy some tub toys, (b) there might potentially be some sensory challenges to consider (e.g., Megan’s caregiver thinks Megan does not really like the water), and (c) the caregiver agrees that the activity/routine might go easier if Megan could make some choices and have more control. The SLP also learns that the caregiver has tried slowing down the bathing pace but did not feel that it was as successful as she had hoped it would be. It is possible that the caregiver has tried different methods to give Megan more control during bathing and still has not achieved the desired outcome, which is for bathing to be less stressful for her and Megan. The SLP in this situation will likely probe further about what the caregiver has tried and how well it went. Overall, this conversation provided information about Megan’s participation and the context that is essential for the caregiver and SLP to consider as they collaboratively develop outcomes and strategies to improve the bath time activity for this caregiver–child dyad.

Although activities/routines that are not going well are often the most salient for caregivers, EI outcomes also need to focus on creating and scaffolding learning and practice opportunities within those activities/routines that are going well in order to promote the acquisition of new skills and generalization of skills learned in a different activity/routine. When an activity/routine is not going well (i.e., the child cannot participate), it is not an optimal learning opportunity until such time as participation can be enabled or improved. When activities/routines are going well and the child is able to participate, a supportive and familiar context is created for practicing existing skills and learning new ones. In the following excerpt from a conversation between an SLP and Sam’s caregiver (CG), who is his mother, we can see how an activity/routine that is enjoyable and going well can be considered as a context for promoting use of communication skills. Sam is 29 months old and has a diagnosis of developmental language delay of undetermined etiology. At the time of Sam’s evaluation, language appeared to be his sole developmental delay. This excerpt is from a conversation during the SLP’s first home visit for this family.

SLP: You had mentioned that you enjoy reading with Sam and I see that you have lots of books.

CG: You know, this is our time together and I just love it. I let Sam select the book and we get cozy and read.

SLP: What are some of Sam’s favorite books?

CG: He likes any books with animals, and he loves the books where you push a button and hear the story on each page.

SLP: It sounds like this is going so well for you. That’s really nice. Does Sam pretend to read or talk to you during story time?

CG: Not really, although when I ask him, he can point to pictures that are in the story. So when we are reading a story, I might say, “Do you see the chicken?” And then he points to the chicken. But he doesn’t really use any words during story time. He uses some words to ask for toys when I am giving him a bath. He also uses some words during mealtimes.

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SLP: So during bath time and mealtime, he communicates with his words. What words have your heard him say during these activities?

CG: Oh, lots of words. During breakfast he asks me for things and I have heard him say juice, cookie, milk, more, yum and then some sounds that I really can’t understand, but I think he believes he is saying words. It cracks me up when he asks for a cookie for breakfast—he knows he won’t get one, but he asks anyhow and we both laugh. Also, when he is taking a bath, he can say some of his letters, and he makes animal sounds to let me know what animal toys he wants. It’s pretty funny. I think he might say cow, dog, and maybe cat, but I am not really sure.

SLP: It sounds like breakfast and bath time are fun at your house and give you and Sam time to talk to each other.

CG: Yea, those things are going well. I think he needs to be talking more. He is almost 3 years old.

SLP: Are there some activities/routines where you would like to see him use more of his words?

CG: Well, I was thinking he should talk a little bit when we are reading, since he knows the words. I mean, he can point to the pictures when I say them, and I have heard him use some of the words in our books when playing at other times.

SLP: What kinds of things have you tried to get him to talk during story time?

CG: I haven’t really tried anything other than asking him to point to the words I say and hope he will say them too.

SLP: So are you thinking you would like to focus on getting him to use some of the words he knows during story time?

CG: Yea, I think that would be good. But I don’t want to frustrate him or do anything that would disrupt this mommy and Sam time.

SLP: I understand. Maybe you could start with one of his favorite books that include some of the words you have heard him say during other activities/routines, and then we could think about some ways to encourage him to use the words that would not be frustrating for him.
CG: Ok. That would be great. I think he would really be proud of himself if he could talk during story time.

In this example, three activities/routines are discussed, including story time, bath time, and meal time. It appears that Sam participates effectively in all three activities, and all activities are enjoyable and going well from the caregiver’s perspective. In addition, the caregiver highly values the story time interactions with Sam. When Sam and his caregiver are reading stories, language comprehension is such that he appears to follow the story and points to words that his mother says. During bath time and meal time, Sam also uses his words to participate. The caregiver’s concern about Sam’s use of communication skills to participate in these activities/routines is apparent when she comments that he is almost 3 years old and should be talking more. All of this information contributes to an understanding of Sam’s use of communication skills to participate in these activities/routines. These data can serve as the basis for developing outcomes that can include practice opportunities for Sam with words he appears to know and also create opportunities for learning new words in the existing, enjoyable activities/routines. When collaborating with caregivers to identify outcomes that will be embedded within activities/routines that are going well, it is important to do this in a manner that respects the caregiver’s wishes to preserve the interaction, and importantly, does not disrupt what is enjoyable about the routine/activity. In this example, Sam’s caregiver indicated that she wanted to preserve the enjoyment she and Sam have during a book-reading activity. The SLP responded to the concern by suggesting that (a) they initially focus on books that include words Sam has used in other contexts, and (b) they (caregiver and SLP) collaborate in devising strategies that would promote Sam’s use of words so that he would not be frustrated.

Multiple sources of information contribute to creating a picture of young children’s participation in activities and routines and developing outcomes. Participation in most activities/routines is enhanced by communication and facilitates the development of other important skills. For example, consider three toddlers who attend a play group at a city recreation center—Charlie, Sara, and Dante—who are all 30 months old and are developing typically. Charlie uses his words to ask the teacher for the “big blue trike” and participates in outdoor play by riding around the playground pathway. He calls out a “hi” and “bye” to the teacher each time he rides by. Sara chooses to participate with Dante in the sandbox, sharing shovels and pails. While Dante buries cars and blocks in the sand, Sara carefully digs elaborate roads and makes requests to Dante for specific cars, trucks, and tractors. Dante responds by giving them to her. As these examples illustrate, during early development, skills required for participation are interdependent, and it is often possible to address communication participation when communication is not necessarily the targeted skill. A child can request help or gain attention while climbing a ladder on a slide; choose a shirt to put on while learning to dress; or make a food choice while learning to eat a variety of foods. In other words, participation in many activities/routines requires multiple skills. When the SLP collaborates with the team and caregiver(s) to identify communication outcomes within multiple activities/routines, young children have the opportunity to learn and practice emerging communication across varying contextual situations (e.g., home, child care program, community outing, visiting friends or relatives).

**Strategies for Assessing Participation in Activities/Routines**

EL programs in all states require some type of assessment of children’s natural environments that includes caregivers’ description of activities/routines that are a part of those environments. This information informs development of the IFSP and guides the development of outcomes and intervention plans. Caregivers, including family members and child care providers, usually are regarded as the primary source for learning about children’s natural environments. In many instances, a single caregiver is able to provide sufficient information about a child’s activities/routines to guide outcome development. However, when children have multiple family members who are caregivers, or spend most of their waking hours in a child care program, it can be useful for the SLP to discuss activities/routines with multiple caregivers. This is particularly the case when intervention may be provided primarily in a child care setting. For example, Matt is 26 months old and uses a few words and gestures, but primarily in his home. His parents and his child care teacher have important perspectives about the activities/routines that Matt prefers and that offer opportunities for participation. At child care, Matt enjoys the sandbox, swings, and tricycles; none of which are available in his apartment or are easily accessed in his neighborhood. His favorite activities to engage in with his parents are reading and singing, and during these activities, he often uses his words and vocalizes. These activities are available at child care but are offered in groups with other children, and Matt often does not communicate during these activities, even though he does communicate at home during the same activities. SLPs benefit from knowledge of the multiple routines and activities for intervention, particularly those that are most likely to be successful contexts for participation. In Matt’s case, he participates in reading and singing at home but not at his child care program. The SLP and the child care provider(s) may wish to collaborate in planning strategies to facilitate Matt’s communication in these activities that he enjoys at home.

The format for learning about caregiver priorities and young children’s activities/routines varies across states’ EI programs, although all states require some type of assessment of the natural environment. Some states have
developed their own tools (e.g., questionnaires, standard interview questions) that are a required component of the IFSP development process. Other states have more general guidelines, leaving the specific format up to EI team members. In many states, EI teams can choose from a variety of methods ranging from an informal open-ended query (e.g., “Please describe a typical day for you and your child.”) to a checklist questionnaire where a caregiver is asked to identify typical activities/routines and rank those that are of concern in terms of child participation (e.g., McLean, Wolery, & Bailey, 2003; Milbourne & Campbell, 2007) or a structured/semistructured interview designed to elicit information about activities/routines, children’s participation, and caregiver satisfaction (e.g., Campbell, 2005; McWilliam, 2010; McWilliam, Casey, & Sims, 2009; Wilson, Mott, & Batman, 2004). Many instruments are also supplemented with data gathered by an EI team member through informal observations.

Increasingly, the standard process for initial identification of priority activities/routines is an interview that may be based on a questionnaire or a standard set of questions that focus on children’s interests and caregivers’ priorities. The interview process provides the SLP with an opportunity to explain the concept of participation-based outcomes and the link to using activities/routines as the context to promote children’s acquisition and use of skills. When matched to the family’s understanding and expectations, initial contacts by the SLP or other team members lay the groundwork for a collaborative team process. During the development of initial IFSP outcomes, and in the early phases of establishing a relationship with a caregiver, it may seem expedient to have caregivers complete questionnaires or respond to interview questions about the child’s activities/routines. However, a trade-off for this apparent expediency may be information that is not necessarily the most accurate or meaningful for identification of activities/routines to serve as intervention contexts. Closed or checklist-formatted questions may not capture sufficient information about an activity/routine to help the caregiver see the value of sharing information. For example, a caregiver may be asked to indicate, from a list of activities/routines, those that are a regular part of the family or child care routine. Such lists typically include little information beyond a brief description of the activity or routine (e.g., “play with toys,” “getting dressed,” “running errands”). These activities/routines may occur regularly for a given caregiver but may not necessarily be viewed as important or meaningful contexts for intervention.

Direct questions (e.g., “Do you have a daily story time?” “Is play a part of your daily activities?” “Does Samuel indicate what he wants to eat during mealtime?”) may be uncomfortable for many caregivers if they are not sure of the purpose of the question; do not see the connections between activities/routines and intervention; or are worried about their children’s development, the program offered, or possible judgment of their parenting or caregiving skills. Caregivers’ cultural backgrounds also can impact their view of professionals as partners, as well as their responsiveness to questions or comments from an SLP or other EI team member (e.g., Hanson, 1997; Pena & Fiestas, 2009; Sylva, 2005; Westby, 1990). Caregivers’ cultures influence the types of activities/routines that may make up their daily lives and also their expectations of their young children within those activities/routines. It is essential that EI providers are both aware of cultural influences and sensitive to cultural variations related to caring for young children and promoting their development. Standard checklists and questionnaires may not offer EI providers the needed flexibility with multicultural families and caregivers.

The constraints of checklists and standard interview questions can be offset by expanding assessment of activities/routines beyond these standard formats. Caregivers can share information about contexts that are meaningful for intervention in many other ways, both obvious and incidental. SLPs may require multiple strategies that can be matched to the context and based on their relationship with a caregiver, including (a) moving an interview or questionnaire to a conversation, (b) engaging in problem-based discussion, and (c) focusing observations on the broader environment during home visits.

**Moving the interview to a conversation.** Conversational formats put families in the role of sharing information, making choices, and ultimately making decisions about the intervention process for their children. These conversations share some characteristics and strategies associated with ethnographic interviewing (cf. Westby, 1990) but may be more focused to facilitate the collection of information important for collaborative development of outcomes that are based on children’s participation. When relying on conversations with caregivers as a method for assessing participation, it may be helpful to consider the following strategies:

- **Explain the purpose:** When the conversation begins, it is important that caregivers understand “why” you are identifying activities/routines. Explaining why information is important reduces a caregiver’s concern and sets the stage for his or her participation. For example, an SLP may initiate the conversation by saying, “We want to know about activities/routines that include you and Matt. We are most interested in those activities/routines that you believe are best for you to help Matt practice his communication skills” (Woods & Lindeman, 2008).

- **Engage reserved caregivers:** Asking about specific activities/routines that have a high probability of occurring, such as dressing, watching TV, car travel, preparing/eating meals, household chores, bath, nap/bedtime stories, or just hanging out, can encourage more reserved caregivers to share information about their daily lives. For example, an SLP might say, “Rachel has lots of books, and I noticed you were...”
reading to her when I came in. How does story time go for the two of you?"

- **Learn about enjoyable activities**: Focusing the conversation on times or places that are enjoyable for the caregiver and child is important. For example, caregivers often respond well to open-ended questions that focus their attention on what happens after a specific activity or routine (e.g., "What do you and Megan like to do when your morning chores are done and you can both have some fun?" or "What are some of Donald’s favorite foods?"). Caregivers also may respond to more probing questions (e.g., "It sounds like bath time is a lot of fun at your house. What are the things that make it enjoyable for you and your son?").

- **Learn about challenging activities/routines**: Questions concerning the difficulty or challenges of specific activities/routines can yield information that is beneficial to establishing initial priorities and intervention outcomes. For example, an SLP may comment to the caregiver, “You mentioned that Jaydon screams and fights you when you dress him, especially if he doesn’t want to wear the shirt you pick out. How do you know which shirts he likes and the ones he doesn’t? How can he participate in getting dressed in ways that will help you?”

- **Integrate observational data**: Conservations that couple open-ended questions with observations provide the SLP with opportunities to acquire a deeper knowledge of connections between activities/routines and possible outcomes for the caregiver. This strategy also enables the SLP to gather ideas for communication skill learning opportunities that are tied to participation. For example, an SLP might comment, “I saw you with Bailey outside in the swing when I drove up. What other play or outside activities does she enjoy? What might happen if you encourage her to ask for ‘more’ or tell you to ‘stop’ while you are swinging?”

- **Understand the variability of activities/routines**: Activities/routines typically identified at home include play time, story time, meals, and bathing. In child care settings, typical activities include play time, story time, and snacks. When having conversations with caregivers, it is important to gather information about the variability of their situations as it is a factor to consider when developing outcomes and choosing intervention contexts. For example, a play time activity or routine may be engaging for both the child and caregiver, but if it occurs infrequently, it will not have the impact necessary for acquiring new skills.

- **Understand caregiver availability**: When discussing activities/routines, it is helpful to know caregiver availability during that time. For example, play time and meals at home or at child care programs may be busy times and may not involve consistent caregiver interaction; therefore, these activities may offer minimal opportunity to target outcomes or embed intervention strategies. For example, Matt’s child care teacher has four toddlers including Matt at her table for lunch, and one has significant feeding concerns that require her close attention. She has limited time to expand Matt’s communication skills during lunch, but she can continue to create opportunities for Matt to use his existing communication skills by offering him choices and encouraging his use of words that he already uses. Hence, lunch time at Matt’s child care center would not be an optimal context for embedding interventions that are intended to promote his acquisition of new communication skills, but it does serve as an appropriate context for practicing his existing skills.

**Engaging in problem-based discussion**. Questionnaires, interviews, and focused conversations may be effective methods for learning about activities/routines from many caregivers, but for others, these formats may yield only superficial or minimal information. In these situations, problem-oriented discussions about “what do you do when” may be helpful to identify priority outcomes and intervention contexts. Often, problem-based discussions may evolve into active problem solving, which is an acknowledged technique for working with caregivers (e.g., Dunst & Trivette, 2009; Hanft, Rush, & Sheldon, 2004). In this format, an SLP may begin the conversation by asking a direct question (e.g., “What routines or activities are difficult for you and Philip?”). After learning about a situation (e.g., “Philip won’t stay in the grocery cart when shopping and fusses loudly,” or “Philip is cranky and nothing seems to be working.”), the SLP may engage the caregiver in a discussion of strategies that he or she has tried to address the problem. Problems such as these can be organized to identify strategies that caregivers have tried or not tried and informal or formal supports that may be helpful in managing the problem (e.g., neighbors, family members, or agencies the caregiver accesses during specific situations). Problem-based discussions also allow the SLP to see if the caregiver is using any of the strategies or resources that already may have been discussed.

Seeking information on what the caregiver is not doing with the child but would like to, where a caregiver is not going with the child but wants to, or how an activity/routine is not working is another opportunity for problem solving with a caregiver. These types of discussions may arise from a statement shared in frustration (e.g., “We don’t go to the park because the car ride is such a horror,” or “We would go visit my sister and her kids more often if Samantha could play nicely and not hit,” or “I have just given up on story time; Ben doesn’t understand how to listen”). Sometimes, observations that may be incidental to a home visit can trigger a problem-oriented discussion. For example, an
SLP might notice that a dad struggles to keep his son out of the dog food while the dog eats. When watching this interaction, the SLP may realize that a problem-solving discussion about other environmental arrangements for the dog, the dog’s meals, and the son would be useful. Examining solutions to problems is often the strategy used to develop and embed intervention for participation-based outcomes.

**Focusing observations on the broader environment.** SLPs are trained to be good observers of children’s behaviors, and these observational skills can be extended to gain a more detailed understanding of children’s broader environmental context. The identification of activities/routines can be enhanced through observations of the environment where the child lives, is cared for, learns, and plays. There are times when caregivers ask for assistance in identifying activities/routines for practicing communication skills with their children. When this occurs, SLPs can look for familiar and preferred materials as well as some uncommon or novel things that are present that might be used to develop outcomes that promote communication participation and learning during activities/routines. For example, if music is playing, the SLP might suggest it to the caregiver as a learning opportunity and discuss a possible outcome focused on using communication skills to enhance or promote the child’s participation within a singing or dancing activity between the child and caregiver. Cardboard boxes in the kitchen may signify a new purchase for the family and result in a couple of great containers to use as pretend cars in the family room or back yard. Scrapbooking materials on the dining room table could be the stimulus for the development of a photo book specific to the child’s communication targets, thereby resulting in the development of two new routines—scrapbooking with the toddler and storytelling with the resultant scrapbook. Looking around the environment should not be mistaken for “being nosy.” The ability to see the possibilities for participation outcomes and intervention within everyday activities/routines necessitates familiarity with the caregiver, child, and opportunities that may be created through activities/routines. As SLPs train themselves to consider environments from this perspective, they will find that noticing potential activities/routines becomes second nature and a valuable way of accumulating information that is central to understanding children’s participation possibilities within activities/routines.

**Developing Participation-Based Outcomes**

Primary data sources for the development of family-centered outcomes in EI include a child’s family and other caregivers identified by the family, observations made by the EI team (to include the SLP), results of tests (standardized and criterion referenced), and results of standard clinical protocols (e.g., language sample analysis, determination of speech intelligibility). In this article, we have discussed strategies for gathering information from caregivers and have illustrated many points through examples and conversational excerpts with the focus on participation. It is beyond the scope of this article to discuss all the sources of data that should be integrated with information about participation to develop family-centered outcomes. However, it is important to acknowledge and emphasize that information about children’s participation in family-identified activities/routines is but one of the data sources used to develop family-centered outcomes, and it should be linked with other data sources to gain an overall understanding of a child’s skills, his or her participation in activities/routines at this point in time, and how their unique contexts may enhance or constrain their participation.

Figure 1 is a schematic that depicts how data sources can be integrated to develop outcomes. The integration process illustrated in Figure 1 can guide the development of initial outcomes, but as can be seen, there is a dynamic interplay between participation, context, and skills. As a result, what initially may appear to be an appropriate, family-centered outcome may be subject to fluctuation as contextual factors moderate participation and children acquire new skills. Hence, outcome development and achievement is a process requiring ongoing thought, exploration, and revision as appropriate, with active collaborations with children’s families and other caregivers.

It is widely accepted that family-centered EI outcomes are based on caregivers’ priorities and concerns and are attainable within young children’s daily activities/routines (Bernheimer & Weismer, 2007; Jung, 2007). From the participation-based perspective, we would also add the need to focus on enhancing or enabling children’s participation in activities/routines. When participation is not a concern (i.e., the activity or routine goes well and is enjoyable), the focus turns to embedding opportunities for learning new skills. For the SLP, participation and embedding may be focused primarily on children’s communication skills and will therefore be reflected as outcomes where (a) communication can improve or enable participation, and (b) learning opportunities are created or identified for children to practice and learn new communication skills within the context of activities/routines identified as high priority by caregivers.

After obtaining information from caregivers regarding children’s participation in activities/routines (e.g., interview, discussion), the outcome development process begins. As noted in Figure 1, child evaluation and assessment data, in addition to caregivers’ assessment of activities/routines, should be considered as the caregiver and SLP collaborate to organize information about activities/routines in terms of the following summary questions:

- What are priority activities/routines for the caregiver(s)?
- How can communication enhance or enable a child’s participation in priority activities/routines?
Can participation in a high-priority activity or routine be enhanced by addressing any limitations in participation through use of augmentative or alternative communication (e.g., making choices with a picture board) or other forms of assistive technology?

What activities/routines can provide a context for embedding learning opportunities for more complex skills, including communication?

What skills (e.g., social, adaptive, cognitive, communication) are needed for children to participate in high-priority activities/routines?

As the caregiver and EI team (which includes the SLP) consider these issues, they can generate tentative hypotheses or conclusions relative to these questions and then develop outcomes accordingly. It has been suggested that when developing outcomes, it is useful to ground the outcome statements within the participation-based perspective by specifying the activity/routine first and the targeted skill last (e.g., Campbell, 2004, 2005; McWilliam, 2010). This can make it easier for caregivers to understand how they can help their children learn communication skills and to also understand that they do not need to fit separate activities/routines into their lives. Examples of outcomes that are consistent with this approach include the following statements:

- Donald will participate in snack time by selecting what he wants to eat by using a picture board.
- Philip will participate in making breakfast (pancakes) by using his words to request ingredients and stirring the mix.
- Megan will participate in dressing/getting up by assisting in taking off and putting on her clothes and by making choices about what clothing to wear by pointing and using her words.

These types of outcomes are in contrast to the more typical skill-based outcomes that are often found on children’s IFSPs. Table 1 provides a list of more traditional,
skill-based outcomes, with examples of how they might be revised to form participation-based outcomes. It is important to note that participation-based outcomes are far more than a rewording of skill-based outcomes: They represent the integration of child evaluation and assessment data with carefully constructed, thoughtfully implemented conversations with caregivers, as well as observations of children and their caregivers in their natural environments. Consider Patrick, a 24-month-old who does not use words for communication, although he does point to things he wants and vocalizes when he is watching TV and looking at books. Patrick qualified for EI services in his state because he scored 1.5 SDs below the mean in the communication and maladaptive behavior domains on the Vineland Adaptive Behavior Scales, Second Edition (Sparrow, Cicchetti, & Balla, 2005). He has been described by his mother and child care provider as a “busy child who is always on the go and often challenged to pay attention to the activity at hand.” The following is an excerpt from a recent conversation between an SLP and Patrick’s caregiver (CG), who is his mother.

SLP: How are mornings going? I know that you have to get yourself ready for work, Patrick’s sisters ready for school, and Patrick ready for child care. That’s a lot to get done.

CG: It is, and it is becoming a big problem. It is big-time stress for me. I get Patrick up and dressed first. Then I move on to his sisters. Patrick wants to help me, but he just gets in the way. He gets frustrated when I can’t pay attention to him and hits his sisters. It is so hard, I have so many people to get out the door in such a short time.

SLP: That sure is a busy morning.

CG: No kidding. By the time I get everyone ready to go I am exhausted and it stays with me all morning. I wish Patrick could understand how to cooperate.

SLP: What could Patrick do to be more cooperative?

CG: I am not really sure. Sometimes I think that if I gave him a job to do, or could find a way for him to help me, it would be easier. If I could just get him to understand what to do, or if we could figure out a way for him to find his own happiness so I can get the girls dressed and then feed everyone breakfast. Maybe he could watch TV, read a book, or even play nicely with the dog, although he really doesn’t like to go off and do things by himself.

SLP: So if Patrick could do something by himself, it would make things go easier in the morning.

CG: I think so, yes, that would help a lot.

SLP: What kinds of things does Patrick enjoy doing that don’t require your supervision?

CG: Well, I have to think about that. He does like all his little cars, well he likes lining them up in rows and making vroom, vroom, sounds while he does it. He really likes the talking books where he pushes a button to hear parts of the story. Sometimes he likes TV, but he has a really short attention span and seems to tune out pretty fast.

SLP: So maybe we can work on finding some things that Patrick likes and can do by himself?

CG: Well, he doesn’t have to go away and not be near us; he just needs to have something to do so he doesn’t get in the way and doesn’t need all of my attention.

There is a significant amount of information in this short exchange. First, this caregiver’s morning routine with her children is not going well, and Patrick is a source of frustration for her. More specifically, she is not satisfied with this routine, and Patrick does not meet her expectations. She is stressed because Patrick either misbehaves (hitting sisters) or requires so much attention that she is challenged to get all the kids ready to go to school and, as a result, is often exhausted by the time they all get out the door in the morning. The caregiver also articulates what she would like to see happen, including a way for Patrick to be engaged (e.g., “find his own happiness”) so she can get everyone else ready to go. She suggests activities (e.g., watch TV, read a book, playing with his cars) that may be possibilities for keeping Patrick engaged. She also mentions that it would be helpful if Patrick could “cooperate” during the morning.

Table 1. Contrasting skill-based and participation-based outcomes and strategies.

<table>
<thead>
<tr>
<th>Skill-based outcome</th>
<th>Participation-based outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megan will use gestures to communicate with her mom.</td>
<td>Megan will participate in outside play with her mom by pointing to indicate what she wants to do.</td>
</tr>
<tr>
<td>Patrick will look at his teachers when they have small-group activities at his child care program.</td>
<td>Patrick will participate in group story time at his child care program by looking at his teacher when she is reading the book.</td>
</tr>
<tr>
<td>Jaydon will learn new words to express her needs to her family members.</td>
<td>Jaydon will participate in bath time by using words to request bath toys.</td>
</tr>
<tr>
<td>Jaydon will name body parts and favorite toys.</td>
<td>Jaydon will participate in bath time by using words to request bath toys for play and will follow directions to wash hands, toes, and other body parts.</td>
</tr>
</tbody>
</table>

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routine. When the SLP asks what Patrick could do to be more cooperative, the caregiver suggests that if Patrick could help her, it would make things easier. She also mentions that Patrick does not necessarily need to be physically removed from the situation, but that he needs to be engaged in something that will keep him occupied. Based on this conversation, as well as Patrick’s assessment data regarding his current communication status, the caregiver and SLP generated the following list of potential outcomes:

- After he is dressed, Patrick will participate in reading by selecting a “talk-to-me” book.
- After he is dressed, Patrick will participate in a play activity using his miniature cars.
- Patrick will participate in the morning routine by following a picture schedule, completing steps as his mother models words and points to a step on the schedule.
- Patrick will participate in the morning routine by handing his mother items (e.g., towel, soap, toothbrush) as she requests them.

Patrick’s caregiver does not need to, and in fact likely would not, select all of these outcomes. The point is to engage her in the identification of outcome options and then collaborate with her to determine the higher priority outcomes. The first two possibilities are focused more on immediate strategies that are intended to make the morning routine easier. It may also be possible to allow Patrick to make some choices by pointing to a picture of his preferred activity. Unlike watching TV, all activities can be completed while Patrick is near his caregiver, which is his preference. The third and fourth outcomes may be considered after the morning routine goes much easier and Patrick’s caregiver feels she can integrate Patrick into the morning routine by giving him options for participation that will also provide him with opportunities to learn new communication skills.

Eventually, the picture schedule may serve as a way to provide Patrick with opportunities for making more choices during the morning routine, and further enhance his participation and learning opportunities. There may also be a trial and error process whereby strategies are implemented and then either enhanced or revised as indicated. In this way, outcomes are modifiable as needed for the particular situation.

**Evaluating Participation-Based Outcomes**

Evaluating participation-based outcomes requires consideration of the question, “How will you know when the outcome is achieved?” The metric for measuring outcome achievement should also be participation based and individualized for a given caregiver and child (cf. McWilliam, 2010; Woods & Lindeman, 2008). Familiar measurement language such as “80% for 3 days” is not adequate. Caregivers will need to describe what the activity/routine will look like for them when the child is participating in a way that is consistent with their expectations. An initial evaluation statement for Patrick may combine the individual outcomes into a statement such as “Mom and the kids, including Patrick, will be in the car ready for the morning without tears or screaming.” As this is achieved, Patrick’s mom might develop an outcome that integrates Patrick more fully into the morning routine, and an evaluation statement might be “Patrick is included in the morning routine and helps his mom by following three of four steps of a schedule.” Or, let us return to Sam and his caregiver and their book-reading activity. Recall, Sam’s caregiver wanted him to use some words that he knows during the activity. An outcome might be stated as “Sam will participate in book reading by saying words on the page as his caregiver points to them.” An evaluation statement for this outcome might be “Sam and his caregiver will engage in four turns of talk during book reading.” As a further example, consider the outcome statement developed by Matt’s caregiver: “Matt will participate in play with a neighbor’s child by using her words to ask for turns with a toy.” An evaluation statement for this outcome might be “Matt will participate in play at the neighbors for 10 minutes and use words to request turns with four different toys.”

Achievement of participation-based outcomes requires strategies that can be implemented within the activity/routine and that lead to the positive effect desired. Documenting achievement of participation-based outcomes will vary widely for individual children and their caregivers and should be developed in collaboration with caregivers. The evaluation statements for the outcomes should reflect what a caregiver regards as an acceptable outcome and also be stated in a format that is measurable. In the cases of Patrick, Sam, and Matt, each of the suggested evaluation statements reflects the caregivers’ objectives but is also stated in a way that may be measured to document progress. We do not mean to suggest that SLPs should not specifically track the emergence and use of communication skills. Certainly, they will maintain specific data about the use of gestures, words, and augmentative forms of communication within activities/routines and look for opportunities to promote generalization of communication skills across activities/routines, as well as opportunities for promoting learning of new communication skills within successful activities/routines. The key difference from more traditional criteria is that (a) outcomes are documented with regard to participation, and (b) skills are monitored in the contexts in which they are used.

**Summary and Conclusion**

In this article, we discussed the importance of developing EI outcomes from the perspective of participation-based services and supports. This perspective is consistent with the current ICF model in which disability is viewed as the
interaction of health, impairment, and context. Within this perspective, context mediates the degree and experience of disability as well as children’s functioning in their natural environments and, as participation increases, the degree of disability decreases. Development of participation-based outcomes to achieve communication goals for young children requires conceptualization of communication as a skill that is central to participation in activities/routines rather than an isolated skill. In other words, the focus of communication outcomes is broadened to include the contexts in which communication occurs, and it is through those contexts (which include caregivers within the activities/routines) that learning and practice opportunities for communication skills are created.

When early communication and language outcomes are participation based, a direction for intervention is apparent and clear—a condition that is important so that caregivers and other team members understand both the content and focus of EI. Thus, the construct of participation based extends beyond developing outcomes to the development and implementation of meaningful, relevant, and integrated intervention strategies and procedures. States, and often programs within the state, have varying strategies for identifying typical activities/routines as well as writing outcomes for the IFSP. Although the examples shared in this article are not likely to transfer directly to the forms provided for the IFSP, it is through those contexts (which include caregivers within the activities/routines) that learning and practice opportunities for communication skills are created.

REFERENCES


