



Asset-Based Context Matrix: An Assessment Tool for Developing Contextually-Based Child Outcomes

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This *CASEtool* includes a description of the development and use of the *Asset-Based Context (ABC) Matrix*. The *ABC Matrix* is a contextually-based assessment tool for implementing an approach to early childhood intervention practices that emphasizes the importance of children's learning in natural environments. It is designed to be used by practitioners and parents for identifying children's interests and assets and promoting children's learning opportunities and participation in everyday life experiences and activities. Its use increases the likelihood that interventions are implemented in everyday natural environments.

INTRODUCTION

The *ABC Matrix* is a contextually-based assessment tool that uses children's assets (personal interests and abilities) as factors promoting their participation in everyday natural learning environments. The tool provides practitioners and parents a useful way of gathering functional and meaningful information for developing contextually-based outcomes and implementing interventions and child learning activities in everyday natural learning environments. The reader is referred to Wilson, Mott, and Batman (2004) for a more complete description of the development and use of the assessment and intervention tool.

The *ABC Matrix* is based on the premise that "natural environments are not places, but the everyday routines, experiences, and activities occurring in different social and nonsocial contexts as part of family and community life" (Raab & Dunst, 2004, p. 16). Figure 1 shows the assessment model that guided the development of the *ABC Matrix*. The model structures information gathering about children's: (1) opportunities to express interests and assets, (2) use of functional and meaningful behaviors in purposeful everyday social and nonsocial activities, and (3) learning opportunities and participation in everyday activities. Information about each of these characteristics is obtained by identifying the child's everyday activities that constitute the fabric of a child's life, and learning the opportunities that happen as part of family life, community life, and early childhood settings.

The assessment model is guided by a particular approach to early childhood intervention practices that emphasizes the importance of having children both

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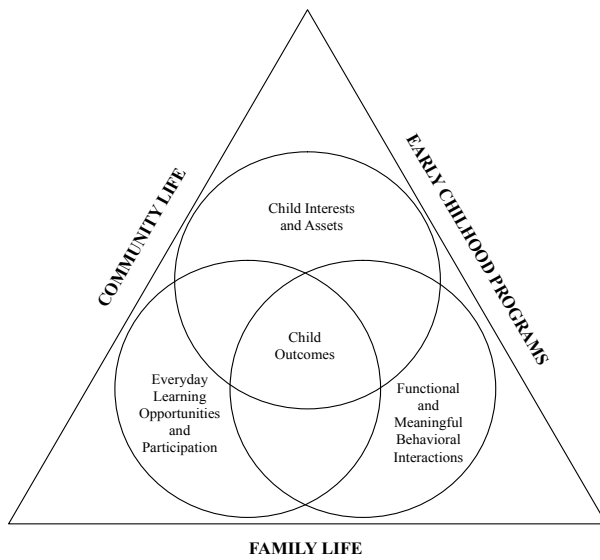


Figure 1. Major components of the asset-based child assessment model.

learn in natural environments and participate in development-instigating activities as part of everyday life (Dunst, 2005; Dunst et al., 2001; Dunst & Humphries, 2003). Based on an extensive review and synthesis of the early childhood literature, Dunst, Hamby, Trivette, Raab, and Bruder (2000) concluded that:

- Children are more likely to engage in activities in which they are interested and at which they are capable.
- Learning is enhanced when children engage in meaningful activities in everyday natural environments.
- Participation in everyday activities increases when children have many opportunities to engage in interactions with people and objects that support and strengthen their abilities in naturally occurring ways.
- Children are more likely to develop and perfect their interactive competencies with people and objects when they have numerous opportunities to engage in interactions that support and strengthen existing and emerging abilities in naturally occurring ways as part of everyday life.

ABC MATRIX COMPONENTS

The *ABC Matrix* includes seven assessment components: (1) contexts for learning, (2) the everyday activities that occur within the learning contexts, (3) child interests and assets, (4) child functional and meaningful context-specific behaviors, (5) opportunities to

use interests and assets, (6) participation in everyday activities as a means for strengthening child competence, and (7) newly afforded activities (possibilities) for further promoting and strengthening child capabilities. Taken together, information in each component is used to “paint a picture” of how best to provide a child interest-based learning opportunities in the context of everyday activities.

Contexts of Learning

The *ABC Matrix* assesses a child’s everyday participation in the contexts of family life, community life, and early childhood programs (where applicable). *Family life* includes the day-to-day activities and events in which a child and family participate, such as household routines and chores, holiday celebrations and special events, indoor and outdoor play, and family traditions and rituals. *Community life* includes activities and interactions the child and family have as part of outings to the park, recreation center activities, formal and informal religious events, and so forth. *Early childhood program activities* include ones that occur in childcare settings, mother’s day out programs, Head Start, playgroups, family resource centers, and other preschool settings. The reader is referred to Dunst, Hamby, Trivette, Raab and Bruder (2000) for a detailed list of everyday activities that are the context for child learning.

Activity Settings

Activity settings are the everyday experiences in which a child spends time engaging in interactions with people and objects. These are naturally occurring routines and daily events, like getting ready for bed, eating meals, riding in the car, being read a story, neighborhood walks, playing outside on swings, and playing dress up. These different kinds of activity settings provide opportunities for a child to learn about and to express his or her interests and assets (Dunst & Bruder, 1999; Dunst & Hamby, 1999a, 1999b; Gallimore & Goldenberg, 1993; Raab, 2005). Activity settings offer opportunities for children to participate in and build upon their competencies in various settings with different materials and with a variety of people in diverse ways.

Interests and Assets

Interests are the child’s likes, preferences, and favorites that encourage engagement and participation in different activities and settings, and expression of existing competence and enhancement of new abili-

ties (Dunst, Herter, & Shields, 2000; Kellegrew, 1998). Interests include how the child spends time and what activities or events maintain his or her attention (Raab, 2005).

Assets are a child's abilities, strengths, talents, and capabilities. A child is most likely to use his or her assets as the means for participating in everyday activity settings when learning opportunities are interest-based. Children's assets include behaviors such as smiling, vocalizing, pointing, reaching, crawling, talking, and jumping. As children use their abilities to participate in different activities, they are able to strengthen these abilities and learn new skills.

Functional and Meaningful Behavioral Interactions

Functional and meaningful behavioral interactions refer to those skills that enable a child to produce a range of social-adaptive competencies, as part of participation in interest-based everyday activities, which in turn, promote and increase participation in everyday activity in independent, competent, and satisfying ways (Bricker, Pretti-Frontczak, & McComas, 1998; Wolery, 1989). The term functional is used specifically to mean the relationship between child behavior and its environmental consequences. Examples of children's functional and meaningful behavioral interactions include, but are not limited to, using words to communicate a desire to go outside to play, using a cup to drink milk at mealtime, and crawling across the floor to play with a favorite toy.

Opportunity

The term opportunity refers to the number, frequency, and quality of the experiences occurring in activity settings that promote increased social and nonsocial child participation in everyday activity (Dunst, 2005; Kellegrew, 1998). According to Kellegrew (1998), participation in everyday activity requires simultaneous attention to two aspects of early childhood intervention: opportunity and ability—where the relationship between *opportunity and ability* is bidirectional and interdependent. *Opportunity* refers to the variety of everyday experiences and activity providing the contexts for expressing existing abilities and learning new competence. *Ability* refers to the behavior, skills, and competence that are strengthened or learned, and permit increased child participation in every day family and community activity. Opportunity provides a context for competence expression, and improved ability provides children the skills necessary for child-initiated activity.

Participation

Participation refers to the ways in which a child takes part in everyday activities. Participatory opportunities help a child strengthen existing abilities and learn new skills. Having as many opportunities as possible to participate in everyday activities helps a child to perfect already learned skills, elaborate on his or her abilities, and learn new ways to participate in different activities.

Possibilities

Possibilities are the ways in which a child and family can increase the child's opportunities to learn and participate in everyday activities (Dunst, Bruder, Trivette, Raab, & McLean, 2001; Kellegrew, 1998). They are the newly afforded opportunities and ways of participating in everyday experiences. Possibilities build on current opportunities and participation that result in new ways of interacting with objects and people, as well as increase the frequency, number, and quality of learning opportunities.

ADMINISTRATION OF THE ABC MATRIX

The *ABC Matrix* includes four sections: (1) instructions for administering the scale, (2) child identification and background information, (3) a format for collecting assessment information, and (4) sample questions to conduct the assessment process. The first section includes instructions and definitions for each of the assessment components. The second section of the *ABC Matrix* is used to record child age, birth date, and gender, assessment setting(s), and other background information. The third section provides a framework for recording assessment information. The contexts of learning *family life, community life, and early childhood programs* are listed in the left and right columns of the recording page and the targets of assessment are listed across the top. The fourth section includes questions that practitioners can use for gathering information for each assessment components.

Implementation

The first step in administering the *ABC Matrix* is to introduce the *ABC Matrix* to the parent(s) and explain the purpose of the assessment process. The practitioner explains that the *ABC Matrix* is an assessment tool for gathering and recording information about a child and family's everyday life that is used to plan meaningful early childhood intervention outcomes. The practitioner further explains that a child learns best by having

the opportunities to do things the child likes to do and is good at doing, and when (s)he has opportunities to do these things in the context of everyday activities.

Information Gathering

The *ABC Matrix* focuses on three main sources or contexts of learning opportunities (family life, community life, and early childhood program activity) and six characteristics of child behavior (involvement in activity settings, interests, assets, functionality, opportunity, and participation) in these settings. Assessment information is gathered on the *ABC Matrix* by conversing with parents, and interacting with and observing the child in everyday natural learning environments. The information is gathered typically in an informal manner rather than by formally administering the scale. Parents are asked to describe a typical day and the everyday, weekly, and special activities and events in which the child and family participate.

The information on the *ABC Matrix* is used to develop interventions that build on children's strengths, assets, and opportunities to participate in everyday learning activities. The practitioner can do this in a number of different ways. Some practitioners might be comfortable asking the parent to tell them about the activities that make up their day and others might begin by talking about the child's interests. Each practitioner uses their own style in a way that supports and strengthens the parent's abilities to share information about their child and family. As the parent(s) describe their day, the practitioner records the information on the *ABC Matrix* assessment protocol.

Case Example

Table 1 includes examples of assessment information generated by a parent and practitioner in the context of three everyday family activities for one child. One of the child's interests is playing in water.

The parent reports that the child enjoys taking a bath and particularly likes to splash and kick in the water. The practitioner records bath time as a family *activity setting* and splashing and kicking in the water as child *interests*. Moving his hands and kicking with his feet are two of this child's *assets* and are noted on the recording form. The practitioner and parent continue to discuss and collect information about the child's interactions with objects and people throughout the day until a complete picture of the child's everyday activities, interests, assets, ways in which the child uses these interest and assets, and the opportunities the child is af-

forded are recorded on the *ABC Matrix*. This procedure is followed for each learning context and each assessment component. This information helps the practitioner and parent develop context-specific and functional intervention outcomes. For example, one outcome for this child is "Jimmy's parents will provide him opportunities to engage in 2 to 3 activity settings such as bath time, water play, and swimming, to promote his kicking and splashing and expand on his water play to include toys and objects." The likelihood that "Jimmy" will strengthen current abilities and learn new skills is increased by providing him opportunities to do what he likes to do and is good at doing in everyday learning activities.

IMPLICATIONS OF THE *ABC MATRIX* FOR PRACTICE

Work completed to date using the *ABC Matrix* indicates that the scale has three major implications for early childhood intervention. First, the *ABC Matrix* is an innovative assessment process that results in identification of useful and functional assessment information based on children's participation in the contexts of everyday activities. The *ABC Matrix* is easily used by practitioners and parents as an assessment process focusing specifically on contextually-based everyday learning opportunities.

Second, the *ABC Matrix* provides a simple but efficient way for practitioners and parents to gather asset-based and functional information that is consistent with the family's values, interests, and priorities. Although the information generated is specific to each child and family, the organization of the information is based on conceptually sound principles and practices of early childhood development (e.g., Bricker, Pretti-Frontczak, & McComas, 1998; Bronfenbrenner, 1995; Dunst & Bruder, 1999; Dunst, Bruder, Trivette, Raab, & McLean, 2001; Dunst, Herter, & Shields, 2000; Hanft & Pilkington, 2000; Kellegrew, 1998; Wolery, 1989). Because of the specificity, functionality, and procedural relevance of the information, the *ABC Matrix* is particularly helpful in developing intervention outcomes and strategies that can be implemented in children's natural learning environments.

Third, the *ABC Matrix* is a useful tool for systematically collecting and organizing information about changes in a child's development and participation in everyday activities over time. Information is updated as needed as a child's activity settings, interests, assets,

Table 1
Examples of Assessment Information Gathered in Each Assessment Component of the ABC Matrix in the Context of Family Life

Assessment Components						
Everyday Activity Settings	Child Interests	Child Assets	Functional/ Meaningful Behavioral Interactions	Learning Opportunities	Child Participation	Learning Possibilities
Bath Time	Splashing the water; playing with boats	Splashes Kicks his feet	Uses hands and feet to splash water to get parents attention	Bath time is everyday	Has the chance to splash and is encouraged to push the boats	Continue to encourage to push the boats Look for other activity settings where the child has the opportunity to splash in water
Riding in the car	Singing songs	Bounces in car seat	Will make sound to get music turned on	Rides in the car to pick up brother everyday	Will move to music; beginning to make sounds along with songs	Use sounds to sing along with songs Look for other activity settings where the child has the opportunity to listen to music
Spending time at the park	Swinging	Smiles Sits in the swing; moves legs	Move legs while sitting in swing to get it to move again	Gets to go to the park and swing one time a week	Holds onto the swing, will move to get it to go	Use sounds to let parent know he wants to swing again Look for other activity settings where the child has the opportunity to use sounds

behavioral capabilities, opportunities, and participation change as a result of everyday life experiences.

CONCLUSION

The *Asset-Based Context (ABC) Matrix* is an assessment tool useful for gathering meaningful information for developing contextually-based child outcomes and implementing interventions and child learning activities in everyday natural environments. It is specifically designed to be used by practitioners and parents for identifying children’s personal interests and abilities and for promoting children’s opportunities and participation in everyday life experiences and activities. Practitioner use of the *ABC Matrix* helps ensure that interventions are developed based on the everyday activities and routines occurring in the contexts of family and community life (i.e., natural environments). This ensures, or at least increases the likelihood, that interventions have optimal positive benefits. Studies conducted with different groups of practitioners have found that the tool is considered both valid and useful for its intended purposes (Mott & Wilson, 2006; Wilson & Mott, 2005).

REFERENCES

Bricker, D., Pretti-Frontczak, K., & McComas, N. (1998). *An activity-based approach to early intervention* (2nd ed.). Baltimore: Brookes.

Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen, G. H. Elder, Jr. & K. Lüscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 619-647). Washington, DC: American Psychological Association.

Dunst, C. J. (2005). Parent-mediated everyday child learning opportunities: I. Foundation and operationalization. *CASEinPoint*, 1(8).

Dunst, C. J., & Bruder, M. B. (1999). Family and community activity settings, natural learning environments, and children’s learning opportunities. *Children’s Learning Opportunities Report*, 1(2), 1-2.

Dunst, C. J., Bruder, M. B., Trivette, C. M., Hamby, D., Raab, M., & McLean, M. (2001). Characteristics and consequences of everyday natural learning opportunities. *Topics in Early Childhood Special Education*, 21, 68-92.

Dunst, C. J., Bruder, M. B., Trivette, C. M., Raab, M., & McLean, M. (2001). Natural learning opportunities for infants, toddlers, and preschoolers. *Young Exceptional Children*, 4(3), 18-25 (Erratum in Vol. 14(14), 25).

Dunst, C. J., & Hamby, D. (1999a). Community life as sources of children’s learning opportunities. *Children’s Learning Opportunities Report*, 1(4).

Dunst, C. J., & Hamby, D. (1999b). Family life as sources of children’s learning opportunities. *Children’s Learning Opportunities Report*, 1(3).

- Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday family and community life and children's naturally occurring learning opportunities. *Journal of Early Intervention, 23*, 151-164.
- Dunst, C. J., Herter, S., & Shields, H. (2000). Interest-based natural learning opportunities. *Young Exceptional Children Monograph Series No. 2: Natural Environments and Inclusion, 37-48*.
- Dunst, C. J., & Humphries, T. L. (2003, April). *Achieving a better balance between child participation in everyday activity settings and child developmental benefits*, Presentation made at the Biennial Meeting of the Society for Research in Child Development, Tampa, FL.
- Gallimore, R., & Goldenberg, C. N. (1993). The social construction and subjective reality of activity settings: Implications for community psychology. *American Journal of Community Psychology, 21*, 537-559.
- Hanft, B. E., & Pilkington, K. O. (2000). Therapy in natural environments: The means or end goal for early intervention? *Infants and Young Children, 12*(4), 1-13.
- Kellegrew, D. H. (1998). Creating opportunities for occupation: An intervention to promote the self-care independence of young children with special needs. *American Journal of Occupational Therapy, 52*, 457-465.
- Mott, D. W., & Wilson, L. L. (2006). Further evidence for the validity of the asset-based context matrix. *CASEinPoint, 2*(4), 1-6.
- Raab, M. (2005). Interest-based child participation in everyday learning activities. *CASEinPoint, 1*(2), 1-5.
- Raab, M., & Dunst, C. J. (2004). Early intervention practitioner approaches to natural environment interventions. *Journal of Early Intervention, 27*, 15-26.
- Wilson, L. L., & Mott, D. W. (2005). Validity of the asset-based context matrix. *CASEinPoint, 1*(4), 1-4.
- Wilson, L. L., Mott, D. W., & Batman, D. (2004). The asset-based context matrix: A Tool for assessing children's learning opportunities and participation in natural environments. *Topics in Early Childhood Special Education, 24*, 110-120.
- Wolery, M. (1989). Using assessment information to plan instructional programs. In D. B. Bailey (Ed.), *Assessing infants and preschoolers with handicaps* (pp. 478-495). Englewood Cliffs, NJ: Merrill/Prenice Hall.

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Asset-Based Context Matrix[®] ***A Contextually-Based Assessment Protocol for Young Children and Families***

Linda L. Wilson & Donald W. Mott

Instructions

The Asset Based Context (ABC) Matrix is an assessment tool for parents and practitioners to use to identify existing and potential contextually meaningful and functional learning opportunities and activities for children. The ABC Matrix is completed by a child's parents/primary caregivers, with participation of an early childhood practitioner when desired. The ABC Matrix focuses on three types of learning contexts (family activity settings, community activity settings and early childhood program activities) and five characteristics of child behavior (interests, assets, functionality, opportunity, and participation). Information is gathered through conversations with parents/primary care providers, and through interactions with and observations of the child in natural environments and settings.

Definition of Terms

Activity Settings are the everyday experiences, opportunities, settings or events that involve a child's interactions with people or objects providing him or her a basis for learning about one's own abilities.

Interests are the child's likes or preferences and include favorite toys, objects, people, or events that encourage engagement and participation in different activity settings.

Assets are the child's abilities, strengths, skills, and capabilities used to participate in interactions with objects or people and which produce desired social and nonsocial consequences and effects as a result of participation.

Functional and Meaningful Activities are interactions between children and their social or nonsocial surroundings, where children use behavior purposefully to communicate, move, or interact with objects and people.

Opportunity refers to the frequency, quantity, and quality of experiences occurring in activity settings promoting increased social and nonsocial child participation in everyday activity. Opportunity includes the number of chances and the quality of those chances that children have in everyday activity.

Participation refers to the ways in which a child takes part in everyday activity, promoting child behavior that is both socially and culturally acceptable. Child participation is increased in ways that provide opportunities to learn, practice, and perfect abilities that permit a child to "fit" into his or her social and cultural groups and settings.

Possibilities refer to new opportunities and ways of participating in everyday activity settings. Possibilities build on the child/family's interests and assets, current opportunities, and participation, resulting in new ways of interacting with objects and people, as well as increased frequency, intensity and variety of opportunities.

Background Information

Identifying Information

Child's Name: _____ Gender: Female _____ Male _____

Year Month Day

Date Completed: _____ _____ _____

Date of Birth: _____ _____ _____

Child's Age: _____ _____ _____

Assessment Administration Information

Assessment Setting:

Respondent's Name: _____ Relationship to Child: _____

Administrator's Name: _____ Title: _____

Assessment Purpose

Purpose of this assessment:

Additional comments about identifying information or administrative conditions:

Components			
	Activity Settings	Child Interests	Child Assets
Family Life			
Community Life			
Early Childhood Programs			

Components				
Functional /Meaningful Interactions	Current Opportunities	Current Participation	Possibilities	
				Family Life
				Community Life
				Early Childhood Programs

Asset-Based Context Matrix[©] Assessment Questions

Activity Settings

- What does your child and family do every day or almost everyday?
- What are those things that have to be done, such as meals, dressing, bathing?
- What does your child and family do certain days, on weekends or times of the week/year?
- What are the special events in which your child and family participate?
- What are the special activities or events as part of your child and family's life?

Child/Family Interests

- How does your child/family choose to spend time?
- What are your child's favorite toys, people, and events?
- What things are interesting or enjoyable to your child and family?

Child/Family Assets

- What does your child and family work especially hard at doing?
- What are your child and family especially good at doing?
- What are your child and family's strengths, skills, and accomplishments?

Functional/Meaningful Interactions

- What does your child do to get started in play?
- What does your child do to keep play or an interaction with you or others going?
- How does your child get what he or she wants?
- How does your child get to where he or she wants to go?

Opportunities

- What activities does your child get to do everyday?
- How often does your child get to do his or her favorite things?
- Where are the places your child gets to do the things he or she likes and can do?
- Who does your child get to play or interact with on a regular basis?

Participation

- What does your child actually do during an activity that he or she likes to do and is good at doing?
- What are the specific ways in which your child participates in interactions with objects and people?

Possibilities

- What are the ways that your child's current opportunities and participation can be expanded?
- What interactions and skills would you like your child to develop?

Notes and Comments