

## YOUNG CHILDREN'S PARTICIPATION IN EVERYDAY FAMILY AND COMMUNITY ACTIVITY<sup>1</sup>

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*Summary.*—Patterns of participation in everyday family and community activities are described for children from birth to 6 years of age. Parents or other primary caregivers completed a survey of either family life or community life as sources of children's learning opportunities and experiences. Rates of children's participation in 50 family activities and 50 community activities at different ages were identified and analyzed in terms of similarities and differences in participation patterns. Findings indicated considerable variability in involvement in 100 family and community activities by young children of different ages. Implications for using everyday family and community activities as sources of enriched learning opportunities that enhance children's development are discussed.

The proposition that children's participation in everyday activities is important for children's learning is a central feature of *development-in-context* perspectives of human growth and development (Wozniak & Fischer, 1993; Dent-Read & Zukow-Goldring, 1997; Bronfenbrenner, 1999). A focus on everyday activity settings (Farver, 1999) as a primary context for understanding and describing human development is grounded in diverse but compatible theoretical models (e.g., Vygotsky, 1978; Bronfenbrenner, 1979; Super & Harkness, 1986; Tharp & Gallimore, 1988; Wertsch, 1991). A common theme and tenet of these various models is the assertion that opportunities to participate in everyday activity afford young children social and nonsocial experiences that enhance their learning and development, which in turn promotes increased participation in other activities which further shape children's developmental courses.

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Investigations of children's everyday activity proliferated when activity theory increasingly was used as a conceptual model and activity settings were used as the unit of analysis for understanding contextually mediated child development (see, e.g., Cole, Engeström, & Vasquez, 1997; Göncü, 1999). Descriptions of everyday life and its contributions to children's development now provide important information about the kinds of family and community experiences in which children becomes participants—influencing and being influenced by persons, objects, and events in activity settings (e.g., Rogoff, Mistry, Göncü, & Mosier, 1993; Lancy, 1996; Lamb, Leyendecker, Schölmerich, & Fracasso, 1998; Tudge, Hogan, Lee, Tammeveski, Meltsas, Kulakova, Snezhkova, & Putnam, 1999). Tudge, *et al.* (1999), for example, studied preschool children's participation in some 28 different kinds of activities. Findings showed that the children, on average, were involved in 145 to 165 different activities and that there was considerable variation in participation patterns according to category (play, academic/teaching, work/chores, and parent/child conversation). Similar findings were reported by Dunst, Bruder, Trivette, Raab, and McLean (1998) who found that young children participated in an average of 100 to 150 different kinds of learning activities in the context of either everyday family or community life.

Research on young children with developmental delays also provides a basis for understanding the makeup of family and community life (e.g., Sallis, Patterson, McKenzie, & Nader, 1988; Harris & McHale, 1989; Gallimore, Goldenberg, & Weisner, 1993; Ehrmann, Aeschleman, & Svanum, 1995; Gallimore, Coots, Weisner, Garnier, & Guthrie, 1996; Dunst, Hamby, Trivette, Raab, & Bruder, 2000). Research by Gallimore and his colleagues provided the most detailed information about the kinds of activities young children with delays experience as part of everyday life. Their findings show that young children with delays (as well as early elementary school-aged children) experience everyday activity in some 10 different life domains (subsistence, parenting/family routines, play, transportation, etc.) and that family efforts to arrange everyday experiences for their children are very much like those of young children without delays (Gallimore, Weisner, Kaufman, & Bernheimer, 1989; Gallimore, Weisner, Bernheimer, Guthrie, & Nihira, 1993).

Taken together, research on young children's everyday activity indicates that children with and without delays participate in many more activity settings than was once generally believed. Despite remarkable advances, however, "we are still far from understanding the daily lives of children and how these experiences fit with development" (Gauvain, 1999, p. 184). To the best of our knowledge, for example, there is no research on patterns of participation in more than a few everyday activities from birth through the preschool years. The studies described in this paper were designed to ascertain patterns (rates) of participation in family and community activity settings,

respectively, among infants, toddlers, and preschoolers with or at risk for development delays. More specifically, we examined the age-related participation in everyday activities that provide young children contexts for situated learning (Lave, 1996) and situated practice (Bourdieu, 1977). The studies were conducted as part of a line of research investigating the sources, characteristics, and consequences of learning opportunities afforded young children in the context of family and community life (Dunst & Bruder, 1999b; Dunst, *et al.*, 2000; Dunst, Bruder, Trivette, Hamby, Raab, & McLean, 2001; Dunst, Trivette, Humphries, Raab, & Roper, 2001). Two sets of findings are reported in this paper: (1) results of the analyses of family survey data and (2) results of the analyses of community survey data. Both sets of findings ascertain patterns and trends of young children's participation in everyday activity settings. The research is expected to inform practice by identifying the particular family and community activities that function as sources of everyday learning activities (Dunst, *et al.*, 2000), with an emphasis on the particular everyday activities that have development-instigating and -enhancing features (Bronfenbrenner, 1992; Dunst, Bruder, Trivette, Hamby, Raab, & McLean, 2001).

#### METHOD

##### *Surveys*

Age-related changes in everyday activity settings were assessed by surveying parents and other primary caregivers to identify the particular family and community activities, experiences, rituals, routines, events, and settings in which young children participated, and which respondents deemed important contexts for children to learn desired and important behavior competence. Participants completed a survey of either family life or community life as sources of children's learning opportunities (see Dunst, *et al.*, 2000, for a detailed description of survey development). Both surveys were carefully constructed so that the activity settings were ones that occur in the families and communities of people from the many different racial, ethnic, and cultural backgrounds in the United States and its jurisdictions (Lynch & Hanson, 1998).

Both English and Spanish versions of the surveys were originally written for the study. Subsequently, the surveys were translated into four other languages (Yapese, Ulithian, Woleaian, Satawalese) for participants from the Federated States of Micronesia. The largest majority of surveys (>95%) were completed in a self-report, written format. Others were administered orally for respondents who indicated that they wanted to complete the surveys in this manner or were translated into other languages orally in instances where the respondents' preferred language was other than English, Spanish, or any

of the Micronesian languages. Any number of accommodations were made and requests honored to permit any parent or caregiver to participate in the study who desired to do so. Preliminary analyses showed that neither response format (written vs orally administered) nor the language in which the survey was written or administered was related to differences in response patterns.

#### *Recruitment of Participants*

Recruitment was done through early childhood intervention programs throughout the United States and several jurisdictions. (The term *early childhood intervention* is used as an inclusive term encompassing a range of early childhood education, early intervention, therapy, and early childhood special education programs.) Early intervention programs in 46 states; early childhood—special education programs in 39 states; Early Head Start and Head Start programs in all 50 states, Puerto Rico, and the Federated States of Micronesia; and 140 American Indian Head Start, early intervention, and early childhood programs in 29 states were contacted to solicit interest in assisting with participants' recruitment. Mailing lists of programs were obtained from state coordinators of early childhood intervention programs and from federal Head Start and Bureau of Indian Affairs program officers.

A letter explaining the study, together with a program profile, was sent to all programs on the mailing lists. The program profile asked for information about type of program (early intervention, preschool, Head Start, etc.), service-delivery location (home-based, center-based, combination, etc.), program size (number of children served), ages of children (birth to three, three to five, birth to five), characteristics of the children (disabled, delayed, or at-risk), socioeconomic backgrounds of the families (poor, middle, upper), and the ethnic backgrounds and the languages spoken by the families in the program. More than 450 program profiles were received from programs in 48 states, Puerto Rico, and Micronesia. Profile information was used to stratify programs according to seven child, family, and program characteristics, and to select programs within each stratum, to ensure that as much program and child/family diversity as possible was achieved. Also, programs serving typically underrepresented families were over selected to ensure broad-based participation in the study. Staff of a total of 222 programs were invited to participate, 180 (81%) of whom accepted our invitation. Examination of information available on the 42 programs not participating indicated about half our requests went unacknowledged, while the others declined our invitation for a variety of reasons.

#### *Participants*

*Family survey.*—The participants were 1,603 parents and other primary caregivers of children from birth to six years of age ( $M = 41.8$  mo.,  $SD = 17.6$ )

with or at risk for developmental delays or poor developmental outcomes. Children were deemed at risk for poor outcomes by the participating programs for medical, biological, or environmental reasons, which were the factors that typically made the children eligible for program services. Participants were from 48 of the 50 United States and two of its jurisdictions (Puerto Rico and Micronesia).

Ages of the survey respondents ranged from 16 to 75 years ( $M=31.4$ ,  $SD=7.3$ ). The number of years of formal schooling completed ranged from zero (0) to 22 ( $M=12.6$ ,  $SD=2.8$ ). About three-quarters were married or living with a partner (73%), 14% were single and never married, and 13% were separated, divorced, or widowed.

Participants' family ethnic backgrounds were: Euro-American (54%), Latino/Hispanic (15%), African American/African Descent (8%), Pacific Islander/Native Hawaiian (6%), American Indian/Native Alaskan (5%), Asian (2%), and Middle Eastern (1%). An additional 7% of the participants reported multiracial ethnicities, and 2% had ethnicities other than those listed above.

The children were involved in either early intervention (birth to three years of age) or preschool (three to six years of age) programs. Early childhood intervention was provided at centers (59%), in the children's homes (22%), or through a combination of home and center-based services (18%).

*Community survey.*—Participants were 1,468 parents and other primary caregivers of children from birth to 6 years of age ( $M=40.8$  mo.,  $SD=17.9$ ) with or at risk for poor developmental outcomes. The children were participants in center-based (57%), home-based (24%), or combination home-based/center-based (19%) early intervention and preschool programs. Parents and caregivers were from 48 of the 50 United States and Puerto Rico.

Respondents' ages varied from 16 to 62 years ( $M=31.1$ ,  $SD=7.0$ ). They completed from zero (0) to 20 years of formal schooling ( $M=12.8$ ,  $SD=2.5$ ). The majority were married or living with a partner (73%), 14% were single and never married, and 13% were separated, divorced, or widowed.

The ethnic backgrounds of the participants' families were Euro-American (59%), Hispanic/Latino (16%), African American/African Descent (9%), American Indian/Native Alaskan (6%), Asian (2%), Pacific Islander/Native Hawaiian (1%), Middle Eastern (1%), and multiracial (6%).

#### *Data Preparation*

Participants completed either a survey of 50 family activities or a survey of 50 community activities, which were identified from an extensive review of the published and unpublished literature with a focus on activities included as part of everyday family life and everyday community life. Respondents were asked to indicate the extent to which each family or community

activity was a place or setting where the child was a participant. Ratings were made on a 5-point scale with anchors of 1: not at all and 5: always for an activity where child learning took place.

Cluster and exploratory factor analysis of the family and community activities found that the survey items could be grouped into the two sets of 11 categories shown in Tables 1 and 2, respectively. The *family activities* include adult activities in which a child becomes a participant (family routines and gardening activities), activities involving a child in daily routines and

TABLE 1  
CATEGORIZATION OF HOME AND FAMILY ACTIVITIES SERVING AS  
SOURCES OF CHILDREN'S LEARNING OPPORTUNITIES

Category/Activities	Category/Activities	Category/Activities
Family Routines	Literacy Activities	Family Rituals
Household chores	Reading/looking at books	Family talks
Cooking/preparing meals	Telling child stories	Saying grace at meals
Caring for pets/animals	Adult/child play times	Religious/spiritual readings
Doing errands	Taking walks/strolls	Praying
Food shopping	Bedtime stories	Family meetings
Parenting Routines	People coming/going (Hellos/Goodbyes)	Family Celebrations
Child's bathtime	Cuddling with child	Holiday dinners
Child's bedtime/naptime	Play Activities	Family members' birthdays
Child's wake-up times	Art activities/drawing	Decorating home (holidays)
Meal times	Playing board games	Socialization Activities
Fixing/cutting child's hair	Playing video games	Family gatherings
Child Routines	Physical Play	Picnics
Brushing teeth	Riding bike/wagon	Having friends over to play
Washing hands/face	Playing ball games	Visiting neighbors
Cleaning up room	Water play/swimming	Sleepovers
Picking up toys	Roughhousing	Gardening Activities
Toileting/going to bathroom	Entertainment Activities	Doing yard work
Dressing/undressing	Dancing/singing	Planting trees/flowers
	Listening to music	Growing vegetable garden
	Watching TV/videos	
	Playing alone	

chores (parenting routines), activities enabling the child to acquire social-adaptive competencies (child routines), activities bringing children in contact with other children and adults (socialization activities), activities having special family meaning (family rituals and celebrations), activities providing children opportunities to practice emerging capabilities and learn new competencies (physical play and literacy activities), and activities providing a context for expressing interest-based child abilities (play and entertainment activities). The *community activities* include children's learning opportunities af-

forded through adult-oriented activities (outdoor activities), family-oriented activities (family excursions and outings), child-oriented activities (play activities), activities bringing children in contact with other children and adults (organization/group and church-related activities), structured (arts/entertainment activities) and unstructured (children's attractions) learning experiences, activities involving children in culturally meaningful and enmeshing activities (community activities), and activities involving participation in sports and recreation.

TABLE 2  
CATEGORIZATION OF COMMUNITY ACTIVITIES SERVING AS SOURCES  
OF CHILDREN'S LEARNING OPPORTUNITIES

Category/Activities	Category/Activities	Category/Activities
Family Excursions	Outdoor Activities	Church/Religious Activities
Family activities	Hiking	Religious activities
Weekend activities	Nature trail walks	Going to church
Car rides/bus rides	Boating/canoeing	Sunday school
Doing errands	Camping	Organizations/Groups
Family Outings	Community gardens	Children's clubs
Eating out	Rafting/tubing	(4H, Indian Guides)
Going shopping/mall	Hunting	Karate/martial arts
Visiting friends/neighbors	Recreational Activities	Scouting
Family reunions	Fishing	Gymnastics/movement classes
Play Activities	Recreation/community centers	
Outdoor playgrounds	Swimming	Sports
Indoor playgrounds	Ice skating/sledding	Baseball/basketball
Child play groups	Horseback riding	Soccer/football
Playing arcade games	Children's Attractions	
Parent/child classes	Animal farms/petting zoos	
Community Activities	Parks/nature reserves	
Community celebrations	Zoos/animal reserves	
Children's festivals	Pet stores/animal shelters	
County/community fairs	Nature centers	
Parades	Art/Entertainment Activities	
Hay rides	Children's museums/science centers	
	Music concerts/children's theatre	
	Library/bookmobiles	
	Storytellers	
	Music activities	

### *Methods of Analysis*

Participation patterns in the 50 family activities and 50 community activities were ascertained by computing the percentage of children involved in the activities at 12 different age groupings. A child was considered a participant in an activity if a study respondent rated a survey item as a place or

experience wherein child learning occurred some, a lot, or always, corresponding to ratings of 3, 4, and 5 on the 5-point scale.

Weighted least squares repeated-measures analyses of variance for dichotomously scored categorical dependent variables were used to analyze the data (Stokes, Davis, & Koch, 1995). The analyses, one for each category of family activity (cf. Table 1), and one for each category of community activity (cf. Table 2), included 12 age groupings (0-6, 7-12, . . . , 61-66, and 67-72 mo.), with the activities in categories as the within group (repeated) measures. The analyses were used to ascertain main effects for age differences, main effects for activities within categories, and the similarities and differences in patterns of participation in the activities through tests of interactions between the two main effects variables. Also, we assessed whether there were overall upward (or downward) trends in the percentage of children participating in each of the 22 categories of activities. This was accomplished by multivariate orthogonal polynomial analysis, testing whether the percentage of children participating in the activities within categories changed predictably as a function of age (Dixon, 1992). We assessed for the presence of both linear and curvilinear rates of change. The former ascertains whether the increases (or decreases) in rates of participation tend to increase incrementally at different age junctures, whereas the latter ascertains whether rates of change are more rapid at younger compared to older ages. We calculated effect sizes for the age-related changes in the rates of participation using procedures described by Hall, Rosenthal, Tickle-Degnen, and Mosteller (1994). The effect sizes for age-related changes are indices of whether changes in time-series patterns are of sufficient magnitude to warrant claims about the moderating influences of child's age on rates of participation.

Where there were significant interactions, follow-up tests were computed to ascertain whether the rates of participation increased (or decreased) as a function of age group for each separate activity within categories and whether there were linear or curvilinear increases (or decreases) as a function of age. The former is equivalent to testing whether the slope of a simple linear regression line increases (or decreases) when the dependent variable is a proportion and the independent variable is an ordered variable (Cochran, 1954), which in our case was chronological age. The latter ascertained whether rates of participation increased more rapidly at first and slowed or leveled off at older age groups.

Given the numbers of analyses performed, and to reduce the likelihood of spurious findings, alpha was set at .001 for all tests. Statistical power was calculated for the family and community survey data using the average correlation of the survey items with children's ages as the expected measure of association. Power for the family survey was .99 and power for the community survey was .97.



## RESULTS

*Family Survey*

Table 3 shows the *F* ratios from the 11 sets of analyses of variance. Patterns of participation in the categories of activities differed according to the child's age (main effects) in each analysis. In all but two analyses (parenting routines and entertainment activities), percentage changes at the different age groups tended to increase incrementally, as evidenced by significant linear trends. The median effect size for these age-related linear trends was .34 (range = .19 to .53), or nearly one-third of a standard deviation. In seven of the analyses there were indications of curvilinear increases in the rate of participation, although these were not as strong as the findings for the linear trends.

TABLE 3  
F RATIOS FROM ANALYSIS OF VARIANCE FOR ELEVEN CATEGORIES OF FAMILY ACTIVITY

Family Activity	No. <sup>a</sup>	Age Effects				Activity Effect	Age × Activity	
		Main Effect	Linear Trend	Curvilinear Trend	Trend			
		F	ES <sup>b</sup>	F	ES <sup>b</sup>			
Family Routines	5	275.36*	238.78*	0.36	36.84*	0.15	347.79*	133.12*
Parenting Routines	5	31.44*	30.17	0.14	8.14	0.07	531.62*	173.51*
Child Routines	6	652.40*	632.56*	0.53	111.07*	0.26	725.22*	643.41*
Literacy Activities	7	43.32*	62.34*	0.19	20.77*	0.11	240.99*	138.83*
Play Activities	3	667.80*	383.19*	0.44	15.04*	0.10	1081.82*	207.51*
Physical Play	4	214.82*	228.61*	0.35	63.83*	0.20	231.51*	156.27*
Entertainment Activities	4	56.96*	27.61	0.13	47.60*	0.17	173.09*	174.28*
Family Rituals	5	161.81*	120.67*	0.27	3.16	0.04	136.32*	72.19*
Family Celebrations	3	223.50*	202.13*	0.34	21.30*	0.11	76.80*	54.06
Socialization Activities	5	171.93*	136.18*	0.28	6.11	0.06	1577.00*	111.20*
Gardening Activities	3	287.09*	157.76*	0.30	0.51	0.02	259.34*	70.29*

<sup>a</sup>Number of activities in the category (see Table 1). <sup>b</sup>ES = Effect size. \**p* < .001.

The percentage of children participating in the different categories of family activities was also different for the activities within each of the 11 categories (activity effects). These findings indicated considerable variability in overall rates of participation in activities within each category.

The main effects for children's age and activities were qualified by interactions of age × activity in 10 of the 11 analyses, indicating that participation patterns were different depending on both the children's ages and the type of activity within categories. Follow-up tests showed that there were significant age effects in participation patterns for 43 of the 50 activities (Appendix A, pp. 890-893), and that rates of changes for the different age groups tended to increase incrementally (linear trends). In half of the analyses there were curvilinear trends in participation patterns, which were espe-

cially noticeable for the family routines, child routines, and physical play activities. Comparatively, however, the trends in rates of participation were more linear than nonlinear in nature across the different age groups.

#### Community Survey

Findings from the analyses of the community activity data are shown in Table 4. There were main effects for child's age in all but one analysis (organizations and groups). In seven of the 10 analyses that produced significant age effects, the rates of changes tended to increase incrementally for the different age groups (linear trends). The median effect size for these age-related linear trends was .20 (range = .18 to .24). In three instances (family excursions, play activities, and community activities), rates of participation in the younger age groups increased more rapidly than in the older age groups (curvilinear trends).

TABLE 4  
F RATIOS FROM ANALYSIS OF VARIANCE FOR ELEVEN CATEGORIES OF COMMUNITY ACTIVITY

Community Activity	No. <sup>a</sup>	Age Effects				Activity Effect	Age × Activity	
		Main Effect	Linear Trend F	Curvilinear Trend ES <sup>b</sup>	ES <sup>b</sup>			
Family Excursions	4	37.31*	32.56	0.15	23.02*	0.12	241.32*	47.51
Family Outings	4	31.59*	28.95	0.14	9.54	0.08	339.77*	59.30
Play Activities	5	132.97*	74.08*	0.22	54.08*	0.19	2504.55*	266.96*
Community Activities	5	174.42*	83.66*	0.23	14.52*	0.10	598.81*	125.24*
Outdoor Activities	7	113.30*	56.09*	0.19	0.00	0.00	907.91*	93.74*
Recreational Activities	5	148.01*	86.12*	0.24	1.28	0.03	907.36*	169.57*
Children's Attractions	5	82.16*	54.91*	0.19	10.40	0.08	418.80*	68.99*
Art/Entertainment Activities	5	79.88*	50.69*	0.18	6.92	0.07	960.80*	132.41*
Church Activities	3	38.83*	26.68	0.13	0.13	0.01	311.75*	43.72
Organizations/Groups	4	18.90	7.28	0.07	1.92	0.04	166.22*	22.51
Sports Activities	2	194.86*	61.81*	0.20	0.00	0.00	116.31*	60.90*

<sup>a</sup>Number of activities in the category (see Table 2). <sup>b</sup>ES = Effect size. \* $p < .001$ .

For main effects, tests for differences in rates of participation between activities within categories produced significant *F* ratios in all 11 analyses. These main effects, as well as those for age effects, were qualified by age × activity interactions in seven of the 11 sets of analyses. Follow-up tests of the rates of participation in the 34 individual activities in these seven categories (Appendix B, pp. 894-897) produced main effects for age in 28 analyses (82%), linear trends in 29 analyses (85%), and curvilinear trends in only six analyses (18%). Inspection of the rates of participation in individual activities within categories (Appendix B) shows, with the exception of three play-category activities, that rates of participation more often than not showed progressive and incremental increases for the different age groups.

## DISCUSSION

Findings from both the family and community survey data indicate that everyday life is made up of many different kinds of participatory learning opportunities (Dunst, 2001) and that changes in participation patterns vary as a function of both child's age and specific type of family and community activity. Rates of participation in family activity increased more rapidly than those for community activities, and overall rates of participation tended to be higher for the former than the latter.

The fact that rates of participation in family activities showed patterns that were different than those for community activities was neither surprising nor unexpected. Most family activities, by their very nature, are more likely to occur every day (e.g., bedtime) or almost every day (e.g., bathtimes), whereas many community activities, by their nature, are more likely to occur as special events (e.g., parades) or on special occasions (e.g., picnics). Findings from our studies are consistent with other research demonstrating differences in the frequency and amount of child participation in different family and community activity settings (Rogoff, Mistry, Göncü, & Mosier, 1991, 1993; Lamb, *et al.*, 1998; Tudge, *et al.*, 1999; Tudge, Hayes, Doucet, Otero, Kulakova, Tammeveski, Meltsas, & Lee, 2000):

Results of the studies reported in this paper add to the knowledge base regarding the kinds of family and community activities that infants, toddlers, and preschoolers experience as part of everyday life. Findings replicate previous research by showing that everyday life is made up of many different kinds of activity settings (see, e.g., Lancy, 1996; Cole, *et al.*, 1997; Göncü, 1999) and that these social and environmental contexts provide a basis for children to acquire the competence that is deemed important by the children's parents (deWinter, Baerveldt, & Kooistra, 1999). Findings from our studies also replicate research from other investigations demonstrating that the makeup of the family and community life of children with delays or disabilities is much like that of children without developmental problems (Gallimore, Goldenberg, & Weisner, 1993; Gallimore, Weisner, Bernheimer, Guthrie, & Nihira, 1993; Gallimore, *et al.*, 1996).

Findings extend previous research in two important ways. First, results from both studies produced evidence regarding the particular family and community activities that parents and other primary caregivers deemed important contexts for children to learn desired behavior and that provided contexts for promoting development. These findings directly address deWinter, *et al.*'s call (1999) for information about the physical, cultural, and social settings that are more likely to provide experiences which optimize benefits to the child. Second, results portraying the age-related patterns of child participation in family and community activities provide *maps* for understanding

the development-in-context changes in children's involvement in some 100 different activity settings (Appendices A and B). These tables are especially useful as guides to inform practice using everyday activity as sources of children's learning opportunities (Beckman, Barnwell, Horn, Hanson, Guitierrez, & Lieber, 1998; Bruder & Dunst, 1999; Dunst & Bruder, 1999a). This is the case because certain activities at particular ages are more likely to be "better candidates" as learning contexts. For example, people coming and going (family literacy activity) is rarely described as an important learning context in the literature, yet it was identified as an important context for children's literacy learning by more than 80% of the survey respondents. In contrast, parent/child play groups, which often constitute a main focus of early childhood intervention practices, were identified by only 30% of survey respondents as an important context for children to learn desired competence. Studies of the sort described in this paper can help identify those activity settings that are most and least likely to be the learning contexts that parents in these programs consider to be important for their children.

As is often the case, studies of the sort described in this paper have limitations as well as strengths. The first limitation, the use of a survey approach, is somewhat diminished by the fact that in-depth descriptive and experimental studies of everyday family and community activities yield findings very similar to those reported in this paper (Dunst, *et al.*, 1998; Dunst, Bruder, Trivette, Hamby, Raab, & McLean, 2001). The second limitation, the small number of activity settings (50 family and 50 community activities) included on the surveys (Dunst, *et al.*, 2000), indicates that the activities must be viewed as only examples of the kinds of social and physical settings in which learning occurs. This point is highlighted by the fact that young children in other parts of the world often experience culturally specific and very different kinds of learning opportunities (e.g., Lin & Fu, 1990; Lancy, 1996; Briggs, 1998; Clark, 1998). The third limitation derives from the fact that the children of the parents participating in the studies were delayed or at risk for poor outcomes, influencing the generalizability of the results. This limitation is reduced by findings indicating that the patterns of participation (numbers, frequency, type, etc.) in everyday activity between children with and without delays or at-risk backgrounds are more similar than different (Dunst, *et al.*, 1998).

All children, regardless of their cultural backgrounds and personal characteristics, participate in activity settings that have either enhancing or impeding characteristics and consequences for development (Bronfenbrenner, 1992). This paper highlights some of the experiences afforded infants, toddlers, and preschoolers from the various cultures making up the fabric of the United States that were identified as instigating development.

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## APPENDIX A

PERCENTAGE OF CHILDREN PARTICIPATING IN FAMILY ACTIVITIES AT DIFFERENT AGE LEVELS

Category/Activities	Age Level (mo.)						
	0-6	7-12	13-18	19-24	25-30	31-36	37-42
Family Routines							
Household chores	18.8	30.5	36.7	54.0	68.3	66.3	74.4
Cooking meals	21.9	20.3	31.1	44.5	50.4	57.9	70.5
Caring for pets/animals	15.6	22.0	37.8	36.5	46.8	44.7	67.9
Doing errands	37.5	35.6	53.3	62.0	68.3	65.8	82.1
Food shopping	43.7	49.2	71.1	81.0	80.6	80.5	84.6
Parenting Routines							
Child's bathtime	93.7	94.9	94.4	94.9	96.4	95.8	93.6
Child's bedtime/naptime	75.0	84.7	91.1	84.7	83.5	84.2	80.8
Child's wake-up times	71.9	69.5	78.9	75.2	73.4	70.0	71.8
Meal times	71.9	93.2	93.3	92.0	91.4	94.7	96.2
Fixing/cutting child's hair	34.4	27.1	50.0	68.6	70.5	70.5	74.4
Child Routines							
Brushing teeth	28.1	28.8	60.0	75.2	87.1	86.8	93.6
Washing hands/face	34.4	40.7	67.8	81.0	87.8	86.3	94.9
Cleaning child's room	15.6	11.9	15.6	35.0	56.8	56.3	74.4
Picking up toys	25.0	35.6	55.6	74.5	82.7	84.7	87.2
Toileting	15.6	15.3	13.3	26.3	45.3	58.4	78.2
Dressing/undressing	59.4	81.4	81.1	89.8	90.6	90.5	89.7
Literacy Activities							
Reading/looking at books	65.6	83.1	85.6	97.1	91.4	90.5	94.9
Telling child stories	62.5	83.1	82.2	83.9	82.0	84.2	88.5
Adult/child playtimes	71.9	89.8	92.2	97.1	95.7	94.7	96.2
Taking walks/strolls	59.4	84.7	84.4	85.4	89.2	86.8	93.6
Bedtime stories	59.4	61.0	73.3	66.4	75.5	71.6	79.5
People coming/going	59.4	74.6	85.6	92.0	92.8	88.9	92.3
Cuddling with child	96.9	94.9	94.4	97.8	95.0	95.8	97.4
Play Activities							
Art activities/drawing	18.8	22.0	40.0	67.2	78.4	80.0	94.9
Board games	18.8	8.5	6.7	16.8	19.4	36.8	48.7
Playing video games	9.4	10.2	8.9	16.8	20.1	28.4	32.1
Physical Play							
Riding bike/wagon	18.8	18.6	31.1	46.7	57.6	65.3	66.7
Playing ball games	15.6	35.6	53.3	74.5	78.4	78.4	76.9
Water play/swimming	43.7	71.2	76.7	84.7	82.0	86.3	80.8
Roughhousing	21.9	35.6	55.6	70.8	68.3	61.1	65.4
Entertainment Activities							
Dancing/singing	40.6	57.6	70.0	87.6	82.0	84.2	87.2
Listening to Music	84.4	88.1	92.2	94.2	94.2	84.2	89.7
Watching TV/videos	37.5	45.8	56.7	75.9	80.6	80.0	84.6
Playing alone	62.5	88.1	90.0	89.1	86.3	82.6	84.6

(continued on page 892)

<sup>a</sup>ES = Effect size. \* $p < .001$ .



## APPENDIX A (Cont'd)

## PERCENTAGE OF CHILDREN PARTICIPATING IN FAMILY ACTIVITIES AT DIFFERENT AGE LEVELS

Age level (mo.) cont'd					F Ratios: Age Effects				
43-48	49-54	55-60	61-66	67-72	Main Effect	Linear Trend		Curvilinear Trend	
						F	ES <sup>a</sup>	F	ES <sup>a</sup>
76.6	76.0	83.9	86.2	92.6	23.52*	198.10*	0.33	13.07*	0.09
64.9	68.2	67.8	65.6	72.2	12.53*	96.05*	0.24	11.95*	0.09
63.0	59.2	65.9	69.2	59.3	12.66*	80.52*	0.22	10.95*	0.08
75.3	68.7	73.8	78.6	81.5	8.15*	64.40*	0.20	10.12	0.08
87.7	84.4	81.3	80.4	83.3	7.04*	49.39*	0.17	30.48*	0.14
95.5	96.1	94.4	92.4	92.6	0.48	0.27	0.01	1.00	0.03
83.1	79.3	82.0	81.7	85.2	0.80	0.01	0.00	0.22	0.01
80.5	77.7	76.0	80.4	90.7	1.64	6.40	0.06	1.86	0.03
96.1	92.7	95.9	93.3	96.3	3.07*	17.88*	0.11	11.29*	0.08
80.5	79.3	73.0	75.9	74.1	10.70*	72.14*	0.21	27.66*	0.13
94.8	93.3	92.1	94.6	98.1	39.94*	327.86*	0.41	91.02*	0.23
93.5	95.5	92.9	93.7	94.4	28.21*	230.45*	0.36	81.87*	0.22
76.6	74.9	79.0	81.2	72.2	36.73*	229.83*	0.36	24.67*	0.12
89.0	91.1	89.5	90.6	88.9	26.16*	210.75*	0.34	71.19*	0.21
90.9	92.7	92.1	92.4	92.6	95.86*	574.59*	0.52	15.43*	0.10
89.0	91.1	94.0	92.9	90.7	4.88*	36.32*	0.15	18.09*	0.11
93.5	94.4	94.8	94.6	98.1	5.71*	46.05*	0.17	16.23*	0.10
88.3	88.3	89.1	92.9	94.4	3.31*	28.18*	0.13	2.22	0.04
92.2	94.4	93.3	94.2	94.4	3.07*	14.24*	0.09	17.97*	0.11
87.0	86.0	88.8	89.7	92.6	2.82	20.14*	0.11	9.51	0.08
81.8	80.4	84.3	82.1	81.5	3.93*	23.85*	0.12	2.15	0.04
86.4	92.2	88.0	88.8	98.1	4.91*	35.37*	0.15	15.47*	0.10
96.8	92.7	92.5	93.3	94.4	0.97	1.19	0.03	0.21	0.01
86.4	87.7	91.0	89.3	94.4	40.36*	320.43*	0.41	73.26*	0.21
59.1	64.8	67.4	67.4	57.4	36.27*	171.19*	0.31	0.62	0.02
39.0	43.0	51.3	49.6	53.7	15.60*	95.59*	0.24	0.07	0.01
76.6	75.4	76.4	79.5	75.9	21.93*	161.29*	0.30	19.80*	0.11
75.3	84.9	78.7	83.0	81.5	15.37*	122.81*	0.27	50.46*	0.18
84.4	84.4	86.9	84.4	90.7	4.82*	40.93*	0.16	16.01*	0.10
67.5	64.8	65.2	65.6	75.9	5.33*	40.59*	0.16	15.39*	0.10
85.1	86.0	90.3	86.6	87.0	9.44*	72.31*	0.21	34.54*	0.15
83.8	83.8	86.1	87.1	87.0	1.87	0.04	0.03	0.39	0.02
77.3	74.3	77.9	82.1	64.8	8.26*	36.47*	0.15	43.05*	0.16
78.6	78.2	76.4	73.7	75.9	3.31*	1.69	0.03	8.76	0.07

(continued on page 893)

<sup>a</sup>ES = Effect size. \* $p < .001$ .

## APPENDIX A (Cont'd)

PERCENTAGE OF CHILDREN PARTICIPATING IN FAMILY ACTIVITIES AT DIFFERENT AGE LEVELS

Category/Activities	Age Level (mo.)						
	0-6	7-12	13-18	19-24	25-30	31-36	37-42
<b>Family Rituals</b>							
Family talks	34.4	33.9	47.8	62.8	59.7	65.3	76.9
Saying grace/thanks	28.1	30.5	35.6	54.0	49.6	55.3	57.7
Religious/spiritual readings	34.4	28.8	45.6	48.2	49.6	50.5	51.3
Praying	37.5	39.0	43.3	46.0	57.6	61.1	66.7
Family meetings	28.1	28.8	42.2	46.0	46.8	50.0	62.8
<b>Family Celebrations</b>							
Holiday dinners	40.6	52.5	55.6	69.3	72.7	74.2	83.3
Family members' birthdays	50.0	57.6	67.8	78.1	76.3	81.1	88.5
Decorating house (holidays)	28.1	39.0	40.0	51.1	58.3	66.3	84.6
<b>Socialization Activities</b>							
Family gatherings	59.4	69.5	68.9	82.5	82.7	81.1	85.9
Picnics	31.3	42.4	41.1	50.4	58.3	60.5	53.8
Having friends over to play	31.3	40.7	52.2	56.2	57.6	67.4	74.4
Visiting neighbors	59.4	61.0	68.9	73.7	69.8	74.7	80.8
Sleepovers	6.2	10.2	14.4	16.1	12.9	18.9	33.3
<b>Gardening Activities</b>							
Yard work	21.9	13.6	22.2	33.6	42.4	52.6	61.5
Planting trees/flowers	25.9	20.3	22.2	32.8	39.6	43.7	53.8
Growing vegetables	9.4	11.9	12.2	15.3	24.5	28.4	25.6

<sup>a</sup>ES = Effect size. \* $p < .001$ .

## APPENDIX A (Cont'd)

## PERCENTAGE OF CHILDREN PARTICIPATING IN FAMILY ACTIVITIES AT DIFFERENT AGE LEVELS

Age Level (mo.) cont'd					F Ratios: Age Effects				
43-48	49-54	55-60	61-66	67-72	Main Effect	Linear Trend F	ES <sup>a</sup>	Curvilinear Trend F	ES <sup>a</sup>
73.4	80.4	78.7	84.8	83.3	13.84*	106.99*	0.25	7.52	0.07
60.4	64.2	68.2	65.6	74.1	7.57*	61.77*	0.19	2.24	0.04
51.9	59.2	60.3	58.9	68.5	3.67*	30.19*	0.14	0.29	0.01
62.3	65.9	66.7	69.2	83.3	6.52*	54.63*	0.18	0.33	0.10
58.4	58.1	62.5	72.8	70.4	8.08*	58.67*	0.19	1.06	0.03
85.7	83.8	89.9	88.8	88.9	13.76*	108.39*	0.25	11.80*	0.09
87.7	86.6	87.3	89.7	88.9	8.39*	70.71*	0.21	14.43*	0.09
77.9	80.4	84.6	86.2	87.0	22.32*	161.61*	0.30	9.82	0.08
85.7	83.8	88.8	87.1	92.6	4.45*	38.30*	0.15	4.62	0.05
69.5	70.4	72.7	68.7	79.6	7.98*	62.41*	0.19	1.32	0.03
76.6	82.1	79.4	83.5	88.9	14.05*	116.08*	0.26	4.84	0.06
81.8	70.6	77.5	83.5	79.6	2.72	18.01*	0.11	2.65	0.04
29.9	31.3	34.5	40.6	33.3	8.15*	43.73*	0.16	0.39	0.02
61.9	65.4	70.8	75.9	72.2	21.82*	144.43*	0.29	3.29	0.05
59.1	59.2	57.7	62.1	68.5	11.69*	81.42*	0.22	0.66	0.02
37.7	40.8	37.8	42.4	61.1	10.00*	77.07*	0.21	0.98	0.02

<sup>a</sup>ES = Effect size. \* $p < .001$ .

## APPENDIX B

PERCENTAGE OF CHILDREN PARTICIPATING IN COMMUNITY ACTIVITIES AT DIFFERENT AGE LEVELS

Category/Activities	Age Level (mo.)						
	0-6	7-12	13-18	19-24	25-30	31-36	37-42
Family Excursions							
Family activities	69.2	85.5	88.2	88.4	89.0	91.9	92.9
Weekend activities	66.7	72.6	84.7	92.9	89.7	92.9	91.4
Car or bus rides	82.1	88.7	90.6	87.5	93.1	90.9	92.9
Doing errands	41.0	67.7	58.8	66.1	73.8	72.6	78.6
Family Outings							
Eating out	43.6	61.3	72.9	76.8	77.2	75.6	84.3
Shopping/mall	61.5	64.5	72.9	68.7	71.7	76.6	80.0
Visiting friends/neighbors	82.1	85.5	89.4	85.7	90.3	91.4	88.6
Family reunions	38.5	45.2	54.1	54.5	46.9	54.8	55.7
Play Activities							
Outdoor playgrounds	43.6	59.7	72.9	80.4	89.0	95.4	97.1
Indoor playgrounds	15.4	48.4	50.6	58.9	63.4	66.5	70.0
Child play groups	33.3	53.2	57.6	74.1	74.5	79.2	78.6
Arcades/games	2.6	3.2	2.4	9.8	9.7	10.2	12.9
Parent/child classes	30.8	48.4	37.6	44.6	44.1	44.7	31.4
Community Activities							
Community celebrations	17.9	38.7	27.1	42.9	48.3	45.2	58.6
Children's festivals	15.4	24.2	31.8	29.5	44.8	47.7	55.7
County/community fairs	17.9	29.0	24.7	35.7	40.0	38.1	42.9
Parades	20.5	32.3	30.6	36.6	39.3	39.6	58.6
Hay rides	10.3	4.8	5.9	11.6	9.7	13.7	10.0
Outdoor Activities							
Hiking	12.8	16.1	12.9	15.2	22.8	20.8	27.1
Nature trail walks	25.6	37.1	32.9	28.6	46.9	40.6	44.3
Boating/canoeing	10.3	8.1	4.7	8.9	12.4	10.2	22.9
Camping	17.9	21.0	20.0	25.0	24.8	23.4	37.1
Community gardens	12.8	12.9	12.9	16.1	13.1	16.2	25.7
Rafting/tubing	5.1	3.2	1.2	5.4	2.8	4.1	10.0
Hunting	5.1	0.0	0.0	1.8	2.8	1.5	8.6
Recreational Activities							
Fishing	17.9	14.5	15.3	18.8	22.1	22.8	32.9
Recreation/community centers	28.2	38.7	37.6	40.2	46.2	43.7	47.1
Swimming	23.1	32.3	42.4	53.6	55.9	56.9	65.7
Ice skating/sledding	10.3	8.1	7.1	10.7	21.4	18.3	30.0
Horseback riding	12.8	4.8	5.9	8.9	12.4	10.7	14.3
Children's Attractions							
Animal farms/petting zoos	23.1	50.0	45.9	53.6	55.2	58.9	70.0
Parks/nature reserves	28.2	61.3	56.5	62.5	62.8	67.5	74.3
Zoos/animal reserves	20.5	40.3	45.9	53.6	53.1	50.8	51.4
Pet stores/animal shelters	23.1	37.1	35.3	45.5	40.7	40.1	37.1

(continued on page 896)

<sup>a</sup>ES = Effect size. \* $p < .001$ .

## APPENDIX B (Cont'd)

PERCENTAGE OF CHILDREN PARTICIPATING IN COMMUNITY ACTIVITIES AT DIFFERENT AGE LEVELS

Age level (mo.) cont'd					F Ratios: Age Effects				
43-48	49-54	55-60	61-66	67-72	Main Effect	Linear Trend		Curvilinear Trend	
						F	ES <sup>a</sup>	F	ES <sup>a</sup>
94.1	93.0	90.8	90.0	89.7	2.44	12.91*	0.09	12.96*	0.09
88.1	93.6	87.3	89.1	89.7	4.37*	19.34*	0.11	18.77*	0.11
94.1	95.3	93.0	96.5	89.7	1.84	7.26	0.07	3.40	0.05
73.7	69.0	65.9	78.1	74.4	3.24*	14.76*	0.10	7.08	0.07
85.6	81.3	76.9	82.6	74.4	4.38*	23.79*	0.13	21.42*	0.12
74.6	80.7	73.8	74.1	76.9	1.31	6.29	0.07	2.69	0.04
88.1	86.5	90.0	90.5	84.6	0.70	0.57	0.02	2.05	0.04
55.9	62.0	62.9	59.7	71.8	2.29	17.34*	0.11	0.00	0.00
97.5	95.3	94.3	95.0	97.4	23.56*	182.01*	0.33	66.40*	0.21
71.2	67.8	62.0	69.7	53.8	5.90*	28.12*	0.14	33.28*	0.15
72.0	80.1	76.4	72.1	66.7	6.09*	26.89*	0.13	32.70*	0.15
28.8	36.8	35.8	38.3	12.8	17.02*	52.36*	0.19	1.97	0.04
39.8	33.3	38.9	35.3	23.1	1.70	.50	0.05	3.38	0.05
55.1	58.5	62.0	57.7	51.3	6.36*	36.02*	0.16	8.30	0.08
55.1	59.1	56.8	49.3	46.2	7.13*	38.94*	0.16	14.76*	0.10
59.3	52.0	54.1	58.7	51.3	7.41*	44.30*	0.17	2.55	0.04
57.6	53.8	55.9	67.7	41.0	8.78*	35.63*	0.15	6.67	0.07
26.3	24.0	16.6	16.9	17.9	3.74*	12.10*	0.09	0.49	0.02
34.7	31.6	36.7	38.3	35.9	5.54*	30.96*	0.14	0.01	0.00
54.2	52.6	55.0	55.2	69.2	5.52*	39.97*	0.16	0.21	0.01
17.8	15.8	17.0	23.9	12.8	3.29*	8.95	0.08	0.51	0.02
38.1	34.5	35.8	37.8	48.7	3.55*	25.44*	0.13	0.13	0.01
27.1	30.4	28.8	22.9	20.5	3.51*	10.94*	0.09	1.24	0.03
10.2	8.8	11.4	10.0	7.7	2.31	.87	0.07	0.03	0.00
5.9	7.6	9.6	10.9	15.4	4.17*	20.90*	0.12	3.67	0.05
35.6	48.0	39.3	49.8	48.7	10.17*	54.54*	0.19	0.76	0.02
45.8	54.4	55.0	48.3	38.5	2.21	.80	0.07	4.47	0.06
54.2	64.9	65.1	70.6	66.7	6.74*	50.69*	0.18	7.25	0.07
22.9	29.2	32.8	33.3	41.0	6.70*	45.40*	0.17	0.16	0.01
18.6	14.0	14.4	14.9	25.6	1.85	11.08*	0.09	0.92	0.03
67.8	68.4	66.4	62.7	76.9	5.19*	44.27*	0.17	6.11	0.06
71.2	76.0	70.3	73.6	71.8	4.53*	31.48*	0.15	10.88*	0.09
66.9	55.0	56.3	54.2	53.8	3.08*	16.64*	0.11	10.73	0.09
55.1	57.9	49.3	50.7	46.2	3.45*	14.78*	0.10	2.59	0.04

(continued on page 897)

<sup>a</sup>ES = Effect size. \* $p < .001$ .

## APPENDIX B (Cont'd)

PERCENTAGE OF CHILDREN PARTICIPATING IN COMMUNITY ACTIVITIES AT DIFFERENT AGE LEVELS

Category/Activities	Age Level (mo.)						
	0-6	7-12	13-18	19-24	25-30	31-36	37-42
Nature centers	12.8	21.0	27.1	35.7	32.4	34.5	41.4
Art/Entertainment Activities							
Library/bookmobile	25.6	25.8	41.2	36.6	38.6	48.2	50.0
Concerts/children's theatre	15.4	21.0	21.2	21.4	25.5	29.4	28.6
Music activities	41.0	53.2	55.3	65.2	64.1	62.9	60.0
Museums/science centers	10.3	17.7	24.7	29.5	29.7	34.0	37.1
Storytellers	53.8	64.5	72.9	67.0	71.0	72.6	75.7
Church Activities							
Religious activities	30.8	41.9	36.5	48.2	46.2	49.2	51.4
Going to church	61.5	58.1	60.0	64.3	65.5	59.4	65.7
Sunday school	25.6	27.4	27.1	30.4	29.7	34.5	34.3
Organizations/Groups							
Children's clubs	7.7	3.2	4.7	1.8	3.4	3.0	1.4
Karate/martial arts	5.1	1.6	1.2	1.8	2.1	2.0	1.4
Scouting	5.1	1.6	1.2	1.8	4.1	2.0	1.4
Gymnastics/movement classes	15.4	19.4	11.8	22.3	20.7	19.3	17.1
Sports Activities							
Baseball/basketball	12.8	11.3	4.7	14.3	24.8	21.3	24.3
Soccer/football	7.7	4.8	4.7	8.0	10.3	7.6	18.6

<sup>a</sup> ES = Effect size. \* $p < .001$ .

## APPENDIX B (Cont'd)

PERCENTAGE OF CHILDREN PARTICIPATING IN COMMUNITY ACTIVITIES AT DIFFERENT AGE LEVELS

Age Level (mo.) cont'd					F Ratios: Age Effects				
43-48	49-54	55-60	61-66	67-72	Main Effect	Linear Trend		Curvilinear Trend	
						F	ES <sup>a</sup>	F	ES <sup>a</sup>
41.5	39.2	35.8	44.8	59.0	3.48*	33.15*	0.15	0.37	0.02
56.8	56.7	61.6	62.7	82.1	8.44*	71.70*	0.22	0.40	0.02
39.8	31.6	38.4	32.3	30.8	2.65	12.26*	0.09	1.84	0.04
60.2	53.8	59.4	56.2	38.5	1.84	0.09	0.01	14.49*	0.10
44.9	41.5	42.8	40.8	38.5	4.00*	27.38*	0.14	5.79	0.06
78.8	90.1	84.7	82.1	84.6	5.52*	33.24*	0.15	1.66	0.03
60.2	57.9	56.3	55.2	66.7	2.98*	24.48*	0.13	0.55	0.02
68.6	66.1	65.1	66.2	76.9	0.76	4.31	0.05	0.27	0.01
48.3	45.0	48.5	48.3	61.5	4.95*	34.50*	0.15	1.35	0.03
8.5	5.3	6.6	7.5	12.8	1.68	4.19	0.05	5.94	0.06
2.5	5.3	6.6	6.0	10.3	1.89	6.70	0.07	5.76	0.06
3.4	7.0	5.7	8.0	10.3	2.01	7.20	0.07	4.08	0.05
24.6	22.8	26.6	20.4	15.4	1.16	1.03	0.03	1.14	0.03
39.0	43.3	41.0	50.2	35.9	13.25*	60.76*	0.20	0.06	0.01
14.4	23.4	24.0	26.9	20.5	6.76*	27.61*	0.14	0.15	0.01

<sup>a</sup>ES = Effect size. \* $p < .001$ .