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ABSTRACT
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Understanding Child Development as a
Basis for Evaluating Partnerships

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Understanding Child Development as a
Basis for Evaluating Partnerships

Valerie Maholmes

The different theories of child development all agree that there are critical pathways to optimal, positive growth in language and thinking skills, social and emotional competencies, and psychological health; and understanding the factors that promote development along these pathways can help educators and partners devise strategies that enhance school achievement.

The goal of this paper is to highlight these developmental pathways as they unfold during the elementary school years and to discuss the implications for the evaluation of school–community–family partnerships. Toward this end, the developmental foundations of the early childhood years as well as the developmental goals of the adolescent years will be discussed. In doing so, understandings about evaluating partnerships involving elementary school children will be viewed in the context of the developmental accomplishments children bring to their school experience and the necessary developmental skills they must take into their middle and high school experiences.

DEVELOPMENTAL PERSPECTIVES

The healthy growth of a child is marked not only by development of the brain and nervous system and other obvious aspects of physical maturation but also by development in the linguistic, cognitive, social and relational, psychological and emotional, and moral and ethical domains.

Brain Development

The growth of the brain is the most basic and critical aspect of physical development. Brain development is most rapid during the first few years of life producing synapses, dendrites, and important nerve fiber bundles. The dense branching and outreach of dendritic fibers links billions of individual neurons, and this circuitry makes possible the development of sensory, perceptual, emotional, regulatory, motor and cognitive functions (Davies, 1999). The brain contains more synapses at infancy than in

adulthood. The brain's growth and the ways in which its particular functions organize are largely influenced by the infant's environment (Davies, 1999). Thus, experience influences which neural pathways will be strengthened, which will remain available, and which will atrophy (Sylwester, 1995; Davies, 1999; Stubbe, 1998; Mayes, 1999).

These understandings of brain development are a critical backdrop for examining other aspects of development throughout the school-age years. As the developing circuitry of the brain makes it possible for sensory, emotional, cognitive, regulatory, and perceptual functions to occur, we can examine how these functions develop along the critical and corresponding pathways: physical, linguistic, cognitive, social, psychological and emotional, and moral and ethical.

Physical Development

Physical development involves a child's progress in the gross and fine motor domains as well as their sensory and perceptual abilities. Variation in gross motor development is due to a combination of biologic and environmental factors, including maturation, motivation, experience, and adult support. Physical growth is steady during the early childhood years. Through adolescence, growth spurts continue with girls experiencing nearly all their physical changes at early adolescence. Boys will not experience respective changes until at least 14 or 15 years of age. Nowhere on the developmental continuum is there greater physical distinction between male and female youngsters of the same age than at this period, particularly at age 13 (Wood, 1997).

Fine motor development involves sophisticated manual dexterity and the ability to perform tasks involving precise control of hand muscles, careful perceptual judgment involving eye–hand coordination, and refined movement requiring steadiness and patience (Bredekamp & Copple, 1997; Maholmes, 1999). At early ages, children benefit from activities such as drawing and painting or constructing with manipulatives. These provide the muscular preparation for school tasks such as cursive handwriting, tracing, typing, and using a computer mouse.

1

4

Sensory integration is characteristic of development among children during the elementary school years. A child's sense of hearing is well developed; however, the ability to perceive subtle phonological distinctions in sounds such as consonant blends is not well developed until about the time the child reaches the first grade (Bredekamp & Copple, 1997). During the pre-school years, children are farsighted and are still developing their coordination of binocular vision. Visual acuity is improved throughout the elementary school years, and by early adolescence, the youngster has better visual memory and concentration, and can perform more complicated and intricate visual–motor tasks (Wood, 1997; Bredekamp & Copple, 1997).

Linguistic Development

Children become speakers of their native language at a rapid pace. A child's vocabulary increases from about a total of 50 words at approximately 2 years of age to learning an average of 50 words per month by the time the child is five years old. As this proliferation continues, the child's working vocabulary reaches 8,000–14,000 words by the time the child is in the first grade (Bredekamp & Copple, 1997).

Cognitive Development

Mental representations, memory processing, and the ability to make meaning out of one's surroundings is a reflection of cognitive development. Newborns and infants demonstrate the ability to learn through making associations and recognizing unchanging features of a particular stimulus (Davies, 1999). During the pre-school years, the child is unable to reason or think logically, the concept of time remains elusive, and the child is unable consider on multiple viewpoints. During the elementary school years children are able to appreciate the perspectives of others, and adolescent youngsters experience a dramatic expansion of their fund of knowledge (Wood, 1997).

2

Social Development

Children make meaning of their world in the course of their interaction with others. Thus, relationships with caregivers and other meaningful adults, such as teachers, are an essential part of promoting positive social development. Through social interactions at home and in school, children learn about social tasks and expectations as they are defined in the familial and cultural contexts.

An important and fundamental concept for understanding factors that influence children's development along this pathway is that of the infant attachment bond. The research in this field indicates that the beliefs and feelings about the self, especially social and global self-esteem, are determined in part by the responsiveness of the caregiving environment to individual needs for comfort and security (Belsky & Cassidy, 1994). Children with a history of secure attachment are more confident about exploring their environment and more open to learning, while children who are not securely attached tend to have negative interactions with others (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1988; Hazan & Shaver, 1994). Similarly, children with insecure–ambivalent attachment bonds often show a lack of assertiveness at the preschool level and tend to be socially withdrawn in the elementary school-age years (Davies, 1999). While researchers are still studying the impact of the infant attachment models and classifications, they have argued that there are impressive links between quality of attachment in infancy and later social development (Bowlby, 1988; Hazan & Shaver, 1994; Belsky & Cassidy, 1994; Davies, 1999).

During the early elementary school years, the tasks of social development are more complex. Although relationships with parents are still important, other adults and peers take on increasing importance. This becomes even more evident during adolescence as the children move away from their parents and teachers as the central figures in their lives and as opposite-gender relationships begin to figure more prominently (Wood, 1997).

Psychological and Emotional Development

Closely tied with social development, psychological development refers to the emerging sense of self-awareness. During the preschool years, identification with parents is a primary means of defining the self (Davies, 1999). By the late elementary school years and through adolescence, children develop a growing preoccupation with the influence of the adult world on them, a preoccupation accompanied by a strong need to reject such influences (Solodow, 1999). Powerful emotions of anxiety, fear, anger, and love arise during this juncture. These emotions are precipitated by the onset of puberty, which strongly influences how children see themselves and how they, in turn, see adults and their peers.

Moral and Ethical Development

The development of prosocial behaviors is often associated with this domain of development. Though closely linked to cognitive, social, and psychological development, the primary tasks along this pathway are self-monitoring and regulation. Children's abilities to be aware of and manage thoughts, emotions, and behaviors—such as anger, aggression, and self-destructive or antisocial behaviors— influence their development along this pathway (Marans & Cohen, 1999). As in the social pathway, the children's ethical development is externally driven and based upon their desire to be loved and to have the approval of their parents. As children reach school age, they have internalized the standards set by their parents and later, their teachers (Davies, 1999).

During elementary school years and onward towards adolescence, children's moral abilities expand and are refined as they learn to balance self-interest with social norms. By adolescence, however, challenging these norms and the opinions of adult authorities is often characteristic of development (Davies, 1999; Solodow, 1999).

FOCAL POINTS FOR PARTNERSHIPS

Based on these development pathways, I see three focal points for partnerships: (a) relationships—providing nurturing support so that a child feels secure and develops the skills and internal resources to accept, develop, and maintain relationships; (b) experience—providing opportunities for

4

children to have continuity of learning experiences between the school, home, and community; and (c) exposure—repeating content in cycles that reinforce learning over extended periods of time.

Relationships

Research concerning attachment underscores the importance of nurturing relationships and their enduring impact on a child's ability to form and sustain both peer and adult relationships, two behaviors central to school success. Children who are able to form positive relationships with their teachers, peers, and other caring adults are more likely to persist in school and to succeed academically (Comer, 1984). Conversely, children who do not have these relationships are often disenchanted with schooling—even as early as the fourth grade. Furthermore, studies focusing on drop-out prevention and juvenile delinquency have shown that social isolation, lack of parental involvement, and lack of empathy from teachers and peers are predictors of school failure (Schwab-Stone et al., 1995). Given the effects of positive relationships, partnerships should be designed to promote meaningful interactions with children and to strengthen a child's ability to accept and form such relationships. There are several strategies to promote this development.

Providing modeling for prosocial behavior. The more children see and experience positive relationships, the better able they will be to negotiate, develop, and maintain similar relationships and interactions. Partners must also model positive problem solving so that children will learn how to confront issues and effectively resolve them. In addition, adults need to be available to process with children their problems and help them reflect on the strategies they use for resolution.

Providing "Social Security." Children look to parents, teachers, and other adults to determine how to evaluate new social situations. Children need to be exposed to a wide variety of social situations to cultivate confidence and to engender feelings of security in their own independent ventures. They need to have available a stable base of adult support to provide guidance and to aid them in processing and making meaning of these new experiences and encounters.

5

Developing Social Competence. Family and community partners can help students overcome social isolation and develop social competence for learning. Many programs target students' self-esteem as an important personal development goal, but few link the esteem-building activities with the competencies needed for academic success. Social competence for learning has become particularly important recently as teachers move away from direct instruction models to collaborative and cooperative models of learning. Students need the skills that allow them to engage in group activities and that simultaneously promote academic success. Skills such as consensus building, listening, perspective-taking, and sharing all need to be developed so that children will be prepared to participate in sophisticated group tasks. Family support service partnerships can play an important role in teaching parents how to develop and model these important skills for their children.

Experience

Growth, in one domain of development, of course, does not happen in isolation of the others. Just as neural and synaptic integration is occurring in the brain, developmental domains are also being integrated and influenced by both nature and nurture—allowing a child to accomplish particular milestones of development. Children, therefore, need to be presented with integrated and thematic curricula that prepare them for and capitalize on those developmental milestones, curricula which also enable them to perceive relationships among content areas. Local, state and national standards now encourage teachers to develop lessons that provide students with many opportunities to learn across the curriculum.

To support these efforts, partnerships need to be aware of the curriculum and the thematic units and to connect their work to the curriculum goals. The integrated approach is also applicable to partnerships providing social and health services. Students need to see relationships between their social and behavioral functioning and academic learning. This is at the heart of social and emotional learning. The more positive experience students have with cooperation and conflict resolution, the better able they

will be to focus their attention on learning. These are skills that must be taught and nurtured by committed and caring adults (Brooks, 1999; Marans & Cohen, 1999; Charney, 1992).

Establishing continuity in a child's experiences at home, school, and community is another key to sound development. The brain's capacity for recalling information is based on making associations, practice, and experience. Family and community partnerships can provide these critical linkages and reinforcements, enabling the child to understand that learning is continuous, occurring in and outside the classroom.

Exposure

The interactions of the developmental domains and the progress a child makes do not occur in systematic stages; rather, development is flexible. Recent studies on the brain's growth cycles suggest that both behavior and the brain change in patterns that repeat several times between birth and adulthood (Fischer and Rose, 1998). These findings suggest that children have multiple opportunities to learn and relearn skills in cycles that reshape neural networks that were not developed during earlier cycles.

These cycles produce a new capacity for thinking and learning that appears to be grounded in an expanded and reorganized neural network. Full development in thinking and learning at each new level emerges gradually over a long periods of time, enabling children to show a cluster of changes over several years. Thus children need to have many opportunities to learn and to reinforce the learning of new skills and content in non-linear and non-sequential ways. Partners can provide opportunities for this reinforcement to take place by providing many activities that correspond to learning objectives and that give students the opportunity to make connections.

LINKING DEVELOPMENT TO SCHOOL-COMMUNITY PARTNERSHIPS

The opportunities to assist and enhance children's development rest largely in the hands of the teachers and parents and other supporting adults. Thus, schools must begin to view themselves as "child development centers" because so much of what a child must master is dependent upon developmental readiness. To attain this view, school–community–family partnerships—which are often more adult-

centered than child-centered—must do more to promote child development. Although meeting the needs of parents often improves their child's ability to learn, it is essential also to help parents develop the skills they need to both advocate for and aid the development of their own children and their children's friends.

A school must have goals and strategies for promoting children's learning and development, but to date, few plans for school reform are guided by our knowledge of child development. A school's reform plan should be developed through an analysis of (a) all the programs, activities, and strategies a school provides during the course of a year, (b) the special characteristics of the students these strategies are intended to address, and (c) the extent to which all of the programs and activities, including those supported by partnerships, target a particular developmental pathway in order to promote students' learning. These child-centered planning analyses will allow schools to determine redundancy or fragmentation in the overall programming for students and enable schools to determine what resources they will need and what partnerships will be able to provide them. Without this articulation, partners will be deemed peripheral or, worse, working at cross-purposes as they compete for the staff's time and for the students' attention.

Finally, students—beginning in the late elementary school years through adolescence—must understand the school's goals, the developmental milestones they are expected to reach, and the ways in which these partners will help them reach those goals. This understanding is important because children need to make connections between supportive resources and activities at the school and their academic learning. Therefore, class meetings and guided discussions with mentors and other supportive personnel give students the opportunity to develop their own personal goals and to chart a course that will help them achieve the developmental milestones. In doing so, students play an active role in their own development and learning.

IMPLICATIONS FOR EVALUATION OF PARTNERSHIPS

Partnerships and associated activities need to be closely aligned with the academic and developmental goals of the school so that the outcomes expectations of all the partners are congruent. The

partnerships should know which of the developmental pathways they will focus on to promote learning and academic outcomes. This knowledge will enable partners to generate and test hypotheses about the potential impact of the intervention. Although it may be difficult to tease out the effects of a single partnership or intervention on student outcomes, it should be feasible to look at the interaction effects and to compare the experiences of students exposed to different learning opportunities provided through the partnerships.

Since we know that development is not a linear, sequential process, non-linear evaluation methods should be designed to assess students' progress. Finding measures of the subtle ways in which children develop is an arduous task. Admittedly, there are few models. A viable strategy would be to analyze the evidence that exists to support the child-centered thrust in the school and to develop new measures based on this analysis.

9

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