Group Size: What Does It Mean for the Children In Your Care?

By Judith Colbert

The effects of group size on children can be effectively examined in relation to the various domains within which the individual child develops physically, cognitively, socially, emotionally, and culturally. In the process of examining those domains, it becomes very clear that the authors of *Eager to Learn* are not alone in their conclusion that the critical component to program quality lies in the relationship between the child and the teacher/caregiver and the ability of the adult to respond to the child (Bowman, Donovan, & Burns, 2001). In almost every case, positive support for the child's development depends on the kind of close observation and knowledge of individual children that is only possible when the number of children in the group is limited.

Limiting the size of the group does not merely make it easier to support various aspects of a child's development. It also makes it possible to see how the children and adults interact together to create what might be termed a "learning group." By stepping back to get a bigger picture of what is happening in the classroom, it is possible to glimpse how these children will see themselves in relation to society later in life and to lay foundations for learning and achieving goals within complex settings in years to come.

The Domains

Physical

Smaller groups support the physical health and safety of children. As indicated in the *National Health and Safety Performance Standards in Caring for Our Children*, the children's "physical safety and sanitation routines require a staff that is not fragmented by other demands" (NHSPS, 2002, Standard 1.002). Increased opportunities to observe children in smaller groups make it possible for staff to become more familiar with the physical needs and characteristics of each individual and can attend to problems in a timely manner. The staff is also more able to provide support for special needs and to notice and address new needs that might arise, such as suspected impairments to vision and hearing. When groups are smaller, children are exposed to fewer germs and infection control is easier, especially in relation to diarrheal disease (Hayes, Palmer, & Zaslow, 1990, pp. 110 and 116). It is also easier to evacuate small groups of children when emergencies arise.

Cognitive-Linguistic

Positive cognitive-linguistic achievement also appears to be related to the increased number of interactions that small groups permit. Research has shown that children from high-quality programs have "better outcomes" through their elementary years (NCEDL, 1999; Colbert, 2002). For example, a national longitudinal study of Head Start programs found that children in classrooms with richer teacher-child interaction and more language learning opportunities had higher vocabulary scores (ACYF, 2001; Colbert, 2002).

The learning context appears to be especially important for language development. Bruce Perry notes that "sounds come to have meaning though repetitive exposure to spoken language in context of a relationship" (2000). For that reason, he is convinced that the infant

who hears words from a radio or television “will never really come to understand language.

We can’t teach language by putting them in front of a video or a TV. But we can teach children language by reading to them, talking with them, singing to them” (2000). Such teaching, however, is only possible when groups are small:

“Children require attention, children require nurturing, and children require relational interactions with attentive care-givers…if there are dozens of other kids, and one overwhelmed adult who has a limited understanding of child development, then this is not the optimal way for your child to spend the day. We really have to be vigilant about the adults spending time with our children. We have to make sure that these individuals understand how to communicate with kids; that they understand how important speaking with a child is; and they know how important nurturing a child’s social and emotional development is.”

Social

As a child psychiatrist and neuroscientist, Perry (2000) is a recognized authority on brain development and children in crisis. He is, in fact, one of many scientists with knowledge of brain development who has focused attention on young children and linked their knowledge of the complexity of the human brain to our understanding of human development.

One of the first to explore the link between brain development and intelligence and human achievement was Howard Gardner (1993, 1999) whose theory of multiple intelligences has had a major impact on our understanding of teaching and learning since its introduction in 1983. He caused us to question and broaden our concept of intelligence by identifying seven (and later eight) intelligences: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal and intrapersonal (and later, naturalistic). He also made us think about the many ways in which we express these intelligences in our daily lives. Details about the various intelligences and their application in early childhood settings are available elsewhere (Colbert, 1997), but two have special relevance to this discussion of the effects of group size on children: interpersonal intelligence which speaks to our social skills and general ability to function in groups; and intrapersonal intelligence which addresses our ability to understand ourselves and regulate our emotions. When groups are small, the staff has opportunities to observe how children interact with each other and, when they note that a child lacks certain skills, they can take steps to help that child acquire the knowledge and abilities that are lacking. The process is thus a three-phase cycle that endlessly repeats itself as staff

- create the context,
- observe and document the children’s independent behavior within that context, and
- take steps to support the children, as required.

Having completed one cycle, the staff starts another by adjusting the context in light of what they have observed in relation to the children’s behavior. Fox and colleagues (2003) emphasize the need for adults to take action to ensure that the early childhood context supports the development of social competence in all of the children. Rather than emphasizing “intensive individualized interventions” in response to challenging behavior, they have developed a teaching pyramid model that is built on the conviction that “most solutions to challenging behaviors are likely to be found by examining adult behavior and overall classroom practice” (p. 52). Changes in adult behavior and practice, however, are built on observation of individual children. Changes, such as providing for more choices and eliminating wide open spaces reduce the potential for conflict and influence the behavior of all children. Teachers can only make such changes appropriately, however, if they have had the time and opportunity to observe the children and build relation-ships with them: “effective teaching in this domain requires careful planning, individualization, provision of many and diverse learning opportunities throughout the day, and attention to children when they are engaged in socially competent behavior such as following directions, helping their friends, participating in dramatic play with their peers, and sharing” (pp. 51-52). None of these is possible when the group includes too many

children.

Bloch (2002) also focuses on relation-ships in the classroom. Like others, she believes that “the relationship between the teacher and child is critical if any effect on a child’s social-emotional adjustment is to take place” (p. 41). Commenting on ways that teachers can help children develop social and emotional competence, she, too, moves beyond the need for constant intervention, by suggesting that staff should aim to ensure that children are able to use their own considerable experience in group set-tings as a foundation for becoming even more skillful in social situations. “Children in group settings such as child care spend more time interacting and communicating with other children their own age than they do with adults and through these interactions they develop the capacity for pro-social behavior” (Bloch, 2002).

In helping children develop their social skills, it is important for staff to provide them with opportunities for interaction, including side-by-side activities such as block building that provide for transitions from “self-initiated parallel play” to “cooperative exchanges” as well as group activities that “create opportunities for the teacher and group to enjoy each other’s company” (Bloch, 2002, p. 45). In Bloch’s view, “Child-initiated rather than adult-directed, interactions carry a potential for a longer lasting impact, especially for the child who is learning how to increase her ability for self-regulation and sharing. Even though intentional behavioral self-regulation is an ongoing process in child-hood, precursors of these important abilities appear at earlier stages. (p. 45)

Consider what might happen when four-year-old Zack is quietly playing farm by himself, busily setting up plastic fencing to make a safe place for his cows beside the barn, and Jamie suddenly runs over, sits down and smashes the fence. In real life, Zack simply moved aside and turned his attention to a tractor on the other side of the barn. Jamie gradually settled down and started to put the fence together again. The two boys played side by side for a few minutes, and then began to interact in a shared play experience. Soon, Zack appeared to tire of the farm and moved on to something else. In the end, Jamie played at the farm until it was time for lunch, contented on his own just as Zack had been when he was interrupted. Staff observed but did not intervene in the play situation.

Without realizing it, these children used what appear to be fairly advanced social skills to negotiate a complex social situation on their own, without adult intervention. Such child-initiated solutions were observed repeatedly among more than one group of children at the program where this exchange occurred. That program, which is a teaching facility at a major university, meets favorable licensing requirements for group size and child-to-staff ratio and benefits from the luxury of having highly trained staff, as well as a number of student interns and volunteers. Few programs have those advantages; yet what occurred illustrates what can happen when the staff has provided a positive learning context. Still, that scenario begs some questions, “What might have happened if Zack had had a tantrum when Jamie arrived on the scene?” “Why did Jamie “crash” into the scene as he did?”

Emotional

It is often difficult to separate the social and emotional domains of experience. As the above example shows, effective social behavior and the ability to interact positively with others depend on being able to regulate our emotions. Howard Gardner called that “intrapersonal intelligence.”

Daniel Goleman calls it “emotional intelligence.” Like Gardner, Goleman has an interest in both the developing brain and the impact of experience on young children. Goleman believes that children benefit greatly from “an emotional education” and uses the term “emotional literacy” to describe the ability to manage feelings by recognizing and regulating them. In his latest book (2003), Goleman reports on a recent conversation with Mark Greenberg, a fellow psychologist who also seeks to protect children from later problems through teaching them key skills for living. He focuses on both the protective and risk factors that influence children’s emotional well-being, beginning with very young infants. Referring to the parent-infant relationship (which might also be the caregiver-infant relationship), he

notes that, “research indicates that when parents recognize their infants’ negative emotions – their anger and sadness – and help them cope with those emotions, children over time develop better psychological regulation of their emotions and show more positive behavior.”

In contrast, when parents “ignore, punish or get angry” with infants for being angry, those children, “knowing that certain emotions can’t be shared, shut them down.” They eventually become overstressed and ultimately fail to develop a basic trust of adults. In other words, even in infancy, children are learning how to manage their emotions based on their caregiver’s response to their feelings (p. 258-259).

Writing specifically about the early childhood classroom, Flicker and Hoffman (2002) provide guidance for teachers faced with children who have not yet learned to manage their emotions. They suggest that such teachers embrace an approach based on what they call “developmental discipline,” which they define as “using observation and one’s knowledge of the individual child, the situation, and child development to guide behavior” (p. 82). Once again, this guidance is linked to the number of children in the group since it depends on the ability of the teacher to observe and interact with a specific child. In fact, Flicker and Hoffman see overcrowding as one of the challenges teachers face: “Teachers are frequently overwhelmed with the conflicts children bring into the classroom. Over-crowded classrooms and inadequate support systems further challenge early childhood and elementary teachers” (p. 84).

In their view, both understanding the child’s level of development and recognizing each child’s uniqueness are “paramount” to effective discipline. As they see it, developmental discipline has many benefits and like Bloch and others, their goal is to support the child’s own quest for emotional self-regulation: “Developmental discipline gives children freedom to explore and discover their world within safe and secure boundaries. It helps them to develop self-control, regulate their own behavior, problem solve, and ultimately resolve their own conflicts” (Flicker & Hoffman, 2002, p. 87). In early childhood settings, that quest for self-regulation is often a long one, with many false starts. How caregivers respond has a large role to play in deter-mining its success. Consider Adam, a five-year old who has been playing on his own with building blocks. Suddenly, and for no apparent reason, he bursts into tears and starts destroying what he has made. How should staff respond? In this real-life situation, the teacher waited for a short time, then moved closer to him and, finally, sat by his side, talking softly to him. Soon Jeremy, another child in the group joined him, patted his arm, and then moved away to join the other children who were assembling for story time in another part of the room. After a while, the teacher left him. By this time he was alone in the area, but he was still crying and shaking in frustration. After a few minutes, however, he became calmer, finished the helicopter he was making, put it on the shelf and joined the others just as the story was starting.

Apparently, this happens frequently to Adam, and his teachers are working to understand why he is so easily frustrated. He had been ill the week before and suffers from severe allergies. Was he simply over-tired or not feeling well? Is something happening at home that is disturbing him? Although he clearly has problems, he is also learning how to deal with them. Left on his own, he was able to recover and join the group. Given his friend Jeremy’s attempts at comforting, Adam is also clearly able to establish social bonds. What about the teacher’s response? To what extent was Jeremy modeling his behavior after hers? What would have happened if the teacher had become angry with Adam – “Stop crying, stop it this minute and get over here!” What would have happened if the group had been so large that the teacher could only ignore Adam or, perhaps worse, speak sharply and make him join the others before he felt calmer?

Cultural

In the preceding paragraphs much has been said about the advantages of small groups for fostering child development in various domains. Most of these advantages have been presented from the teacher’s point of view, i.e., the teacher can respond more appropriately to individual needs because the group of children is small. But what about the child’s point of view? How do children see the group? What do they bring from their home culture to their

understanding of being in a group? What new learning do they acquire about being in groups from the way their early childhood program is organized? How does the “culture” of their experience in the program group affect their learning and development?

In focusing on the importance of addressing cultural issues in early child-hood programs, Kaiser and Sklar Rasminsky (2003), suggest that the way a child relates to the group is fundamental to the development of the child’s self-identity: “Children begin to construct their identity – to understand who they are – from understanding their own culture and by responding to how others see and relate to them. To form a positive self-concept, children need to honor and respect their own culture and to have others honor and respect it too...When we don’t recognize a child’s identity – or when we misrecognize it – we can actually harm her by putting her self-concept at risk” (p. 54). Kaiser and Sklar Rasminsky (2003) also suggest that the cul-tures of the world can be divided into two distinct types: “low-context” (e.g., Western Europe, the US) where the individual is valued over the group and independence is the greatest virtue; and “high-con-text” (e.g. Asia, Southern Europe, African-American and Native American) where the individual is “first and foremost part of a group” and where interdependence is valued.

Given that groups are small enough for observation to take place, it is important to consider what the individual child brings to participation in that group. It is true, that children bring with them the obvious effects of conflict at home, but it is also true that they bring with them the more subtle influence of deeply rooted cultural practices that can easily be misunderstood by teachers and caregivers. Kaiser and Sklar Rasminsky cite the example of the three-year-old who spills her juice, not because she is clumsy or immature but because she “may not know how to drink from a cup because in her culture many generations ago liquid was too precious to present to a child in a spillable form and she still drinks from a bottle” (p. 56).

On a more general level, the child who comes from a culture where individual achievement is valued will have a much more difficult time integrating into the group, and will interact differently with both peers and adults, than the child from a setting where interdependence is highly valued and where “their self-esteem is based on their contributions to the good of the whole, not on their individual achievement.” The challenge for teachers is to be observant and also to be aware of their own culture so that their own feelings and perceptions are not a barrier to understanding the children in their care.

Learning Groups

Whatever the cultural background of the adults and children in the early care and education setting, the immediate challenge for staff is to lay a solid foundation for the future by creating a culture within that setting where individuals can grow and develop and learn to interact positively with others.

The decision to divide children into groups means, at the very least, that children will learn in two ways: as individuals and as a result of their interactions with the others. Some of that new knowledge will be acquired only by an individual child, but some of it will extend to the group and become part of their shared early childhood experience. With respect to social-emotional learning, for example, the child who learns to regulate his feelings when another destroys his farm has learned something as an individual.

Together, the two children who have learned to play side-by-side and with each other have had a shared experience that benefited them but also benefited the group since it maintained the order and calm of the classroom.

The Making Learning Visible Project involves research teams from both Reggio Emilia (RG) and Project Zero (PZ), a research group founded at Harvard University by Howard Gardner. In *Making Learning Visible: Children as Individual and Group Learners*, project researchers explore issues in response to questions about children in groups, including “What is a learning group?” “When does a group become a learning group?” “Who is part of a learning group in school?” “What is the relationship between individual and group learning?” Ultimately their definition of a learning group involves ideas

about a collection of people “solving problems, creating products, and making meaning” where “each person learns autonomously and through the ways of learning of others” (p. 16). In the context of that project, these questions may well emerge logically from contrasts in the cultures from which PZ and RG arose. And yet, in an increasingly multicultural world they are questions that early childhood educators should be asking.

Ideas about learning groups are not new. Summarizing their benefits, Stahl (1994) notes that research studies in K-12 classrooms “have revealed that students completing cooperative learning group tasks tend to have higher academic test scores, higher self-esteem, greater numbers of positive social skills, fewer stereotypes of individuals of other races or ethnic groups, and greater comprehension of the content and skills they are studying.” In reviewing these outcomes, and adjusting for age and developmental abilities, most of these sound like the goals of staff in most early childhood settings.

Conclusion

Complying with group size requirements and dividing children into groups is just the first step toward achieving a quality program. The rest of the journey depends on opportunities for interactions between the teacher and children and the teacher’s ability first, to observe the children and foster learning and growth in the major domains of development, and ultimately, to support the creation of not merely a group of learners, but also a learning group that has the power to enhance the knowledge and understanding of all of its members, including both children and adults.

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