Addressing Center Size: A Village of Interconnected Houses for Very Large Centers

by Gary T. Moore, Ph.D.

When I visit child care centers in Canada or Scandinavia, I'm struck by how small and intimate they are. A typical child care center in Sweden in and around the city of Stockholm has one to four groups of 12-15 children each for a total of no more than 60 children.

Meanwhile, many, many centers in the United States house well over 100 children. The largest child care management organizations have average licensed capacities between 135 and 193 children per center (*Child Care Information Exchange*, May/June 1996, p. 11).

The 50 largest centers in the United States house over 300 children each (*Child Care Information Exchange*, July/August 1992, p. 11), with the largest, the Central Learning Center in Memphis, Tennessee, having a capacity of 962! This is massive, to say the least.

Is there any evidence that larger is better, developmentally speaking? Or is there any evidence that the issue of size is benign, i.e., that overall size of center doesn't impact on quality child care? The evidence is sketchy and in some cases somewhat tangential. But I think it is powerfully indicative.

Smaller Centers Are Better, Developmentally Speaking

Over 20 years ago, Elizabeth Prescott and her colleagues published work suggesting that size did matter. Developmentally speaking, they found that size in terms of total number of children under one roof is a reliable predictor of program quality. The variety and quality of children's developmental experiences are directly affected by the size of the facility.

In centers which serve over 60 children, emphasis tended to be placed on rules and routine guidance. Conversely, teacher emphasis on rules and routines was found to be significantly lower in smaller centers. Meanwhile, opportunities for "pleasure, wonder, and delight" were significantly higher in centers around or under 60 children.

Prescott and Thomas David also found that large centers rarely offer children the experience of participating in wide age-range groups. Mixing of ages in smaller centers offers opportunities for older children to serve as models

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Figure 1. A typical child care center for 60 children in the suburbs of Stockholm — Fabodstugan Child Care Center, Jarfalla, Sweden. Photograph by the author.

and facilitators as well as enriching overall play possibilities.

The outdoor play areas of larger centers were also rated low on organization, variety, and amount of things to do per child. Children were seldom observed to be highly interested and enthusiastically involved. Prescott's findings have been corroborated by studies of other kinds of settings, such as schools, as reviewed a few years later by Paul Gump.

Powerful parallel evidence came from the U.S. National Day Care Study in the late 1970s. Travers and Ruopp found that controlling group size is an effective way to promote quality child care. Children in smaller groups (15 or fewer children) showed higher frequencies of such behaviors as considering/contemplating, contributing ideas, giving opinions, persisting at tasks, and cooperating than did children in large groups.

In larger groups, children showed higher frequencies of wandering, noninvolvement, apathy, and withdrawal. Children in smaller groups also had larger gains on two different standardized measures of cognitive development. While this study looked at group size, not overall center size, groups tend to be smaller in smaller centers. And, again, smaller is better.

In the now classic *Big School, Small School*, Roger Barker and Paul Gump conducted a study of a sample of large and small (100-150 students) high schools in Kansas. Their evidence indicated that participation in school activities, student satisfaction, number of classes taken, community employment, and participation in social organizations are all superior in small schools relative to large schools.

More recent and even stronger evidence comes from excellent cross-sectional and longitudinal studies conducted in Indiana and Tennessee. All other things held equal, the size of elementary schools is inversely related to quality of education. Small elementary schools also have lower crime levels and less serious student misconduct. A report from the U.S. Department of Education comparing small schools between 100-200 students with larger schools found negative relationships between math or verbal ability tests and school size, and that size is even more critical to success for African-American students' achievement and in urban schools.

From these studies, we may conclude that elementary school size has tremendous effects on prosocial behavior (higher student participation, greater sense of responsibility, lower crime levels, less student misconduct, and less disruptive behaviors) and on academic achievement (higher student test performance, especially mathematics and verbal ability, and especially

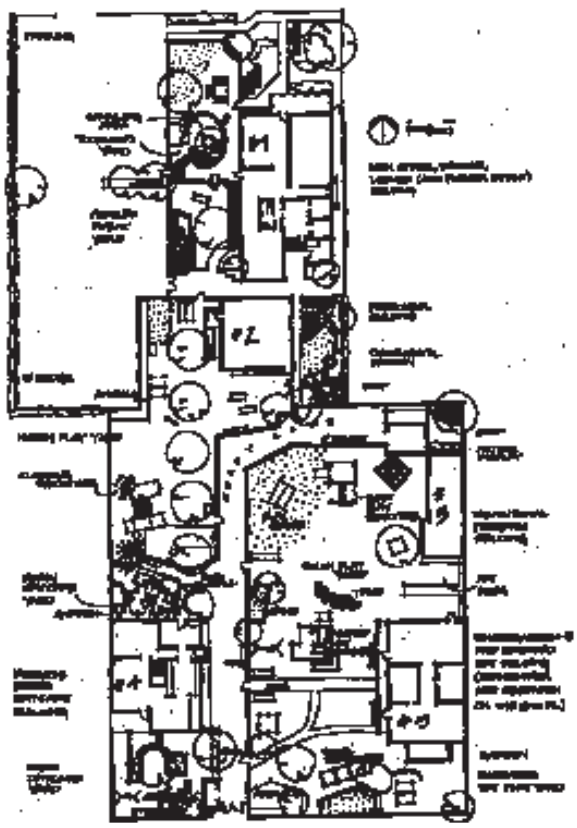

Figure 2. A village plan — five separate but closely neighboring buildings for a total of about 200 children — Pacific Oaks College Children's School, Pasadena, California.

for African-American students and in urban schools).

Might the same be true for smaller versus larger child care centers? We don't know for sure, but the early and parallel evidence seems what I might call "suggestively compelling."

What Is the Optimum Size for a Child Care Center?

One of the most important decisions to be made in planning a child care center is the number of children to be served in one facility. The evidence seems to show that the developmental quality of child care services provided drops sharply with increases in the number of children served in one building.

For years, based on the above evidence, we have been recommending the establishment of child care facilities for about 60 children — with a maximum of 75 children — whenever and wherever possible. At this size and scale, child care centers have a much better chance of fitting into the neighborhood, not being too rule heavy and bureaucratic, and being friendly in scale rather than institutional in appearance.

What If Demand is Greater Than 60 or 75? A Village Plan of Interconnected Houses

The demand for child care continues to outstrip available programs and facilities worldwide. The tendency, financially speaking, is to build larger and larger centers, especially in the United States. The research suggests, however, that, developmentally speaking, this often is detrimental. What to do?

The first, and most obvious, solution is to do as the Swedes have done, especially in the city of Stockholm. A center for a maximum of 60 children is built in one of Stockholm's varied neighborhoods. Perhaps it serves 60 children; it may only serve 45. If demand continues to grow, rather than making that center bigger, another small center is built, maybe only two or three blocks away.

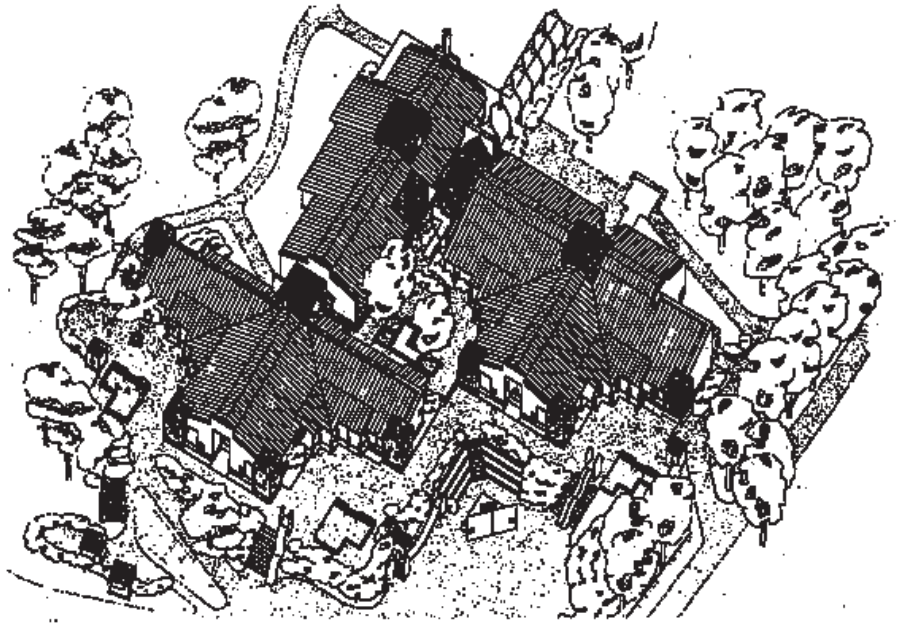

Figure 3. Another village plan of three interconnecting houses for a total of 129 children — Sinikello Child Care Center, Kuopio, Finland.

To control costs, a number of centers are linked together into what we have been calling a "network of child care centers." In a community-wide network, good planning can lead to the central coordination of some functions (purchasing, hiring, curriculum, consultation, health and safety standards, administration, etc.) while the majority of children are actually in small group child care centers for 60 or so children. Diversity and choice, consistent with care and concern, are thereby assured.

The second way to handle the dilemma of cost versus quality is to create one building, or cluster of buildings, in terms of what we have called a "campus plan" or "village plan" concept. Take, for example, the child care facility at Fort Bragg, South Carolina. The director is very proud that the facility is a collection of buildings and not a single monolithic one that would overwhelm children and adults. Five interconnected buildings (a total of 19,000 square feet [1,800 m^2]) house 290 children. Despite the large size and number of children, this center is still able to retain an image of being small, intimate, and dedicated to children. A large part of this is its physical layout in five interconnected buildings straddling a central drop-of and walkway.

The Pacific Oaks College Children's School is another prime example. Five separate but closely adjacent buildings ranging up to 7,200 square feet each (for a total of 15,000 square feet [1,400 m^2]) house some 200 children. The five buildings — all former single-family houses — are clustered around a shady lane (actually called "Shady Lane") and interconnected backyards. Consistent with the overall

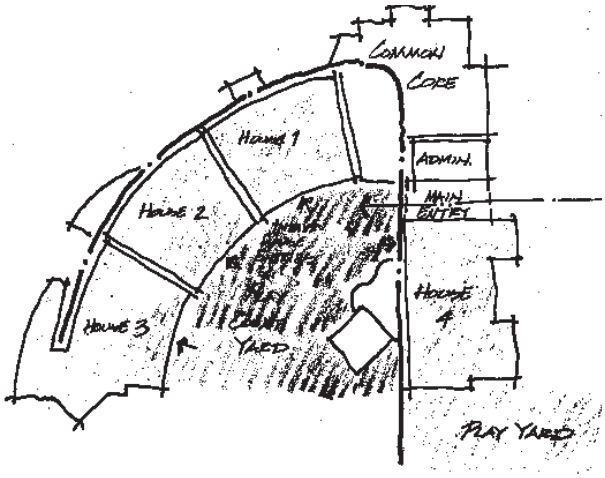

Figure 4. One building composed of four abutting houses for a total of 196 children — St. Joseph Health Center Child Development Center, Kansas City, Missouri.

Pacific Oaks pedagogy, each house works semi-autonomously in terms of program philosophy, local directors, and staff; and yet they share resources, buying power, maintenance, and overall administration for cost containment.

Another wonderful example is the campus child care center at the University of British Columbia in Vancouver (the playgrounds of which were featured in the May/June 1995 issue of *Child Care Information Exchange*). Seven side-by-side semi-detached buildings now serve a whopping 264 children. Yet, due to the fact that each building serves on average only 38 children, the scale and image is one of little, child-scaled houses, each with their own interconnected backyard play yards. While stretched out in a line due to the constraints of the site, the solution was heavily influenced by older centers like Pacific Oaks College Children's School.

Other solutions include a building with wings or pods, or some form of architecturally identifiable "houses," each serving no more than 60 children, and yet linked together under one roof and one administration. We did this a couple of years ago for the St. Joseph Health Center Child Development Center in Kansas City. One facility serving 196 children has been articulated administratively and architecturally into four houses. Each house is administered semi-autonomously by master teachers, yet there is a common core of shared facilities and one administration with no duplication of functions. Architecturally, each house has some of its own character, with its own entry and play yards, yet is integrated into a larger whole.

The concept of a "village" or a "campus" of interconnected "houses" — each serving a constellation of no more than 60 children — may prove to be an important educational and design concept for neighborhoods, corporations, and centers of all kinds concerned about serving children's developmental needs while feeling the need for a facility for larger numbers of children. The general principle, therefore, is *whenever and wherever a center is to house more than 75 children, partially decentralize or decompose the center (both in terms of program philosophy and architecture) into a village, campus, or articulated series of interconnected houses, each module of which serves no more than 60 to a maximum of 75 children.*

Figure 5. The basic concept — decomposing larger numbers of children and staff into a campus or village plan, each module of which is large enough to have it's own entrance and identity.

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