

INTRODUCTION TO THE SCALES AND INSTRUMENTS

Dear Colleague:

Enclosed are some of the scales we have used in recent research on child-environment relations, in particular:

- Early Childhood Center, Children, and Teacher Profiles
- Early Childhood Teacher Style and Dimensions of Education Rating Scales
- Early Childhood Physical Environment Scales
- Playground and Neighborhood Observation Behavior Maps
- Environment/Behavior Observation Schedule for Early Childhood Environments

The first two sets of profiles and scales are used to measure four dimensions of teacher or caregiver style in early childhood settings: encouragement versus restriction, conformity versus nonconformity to routine, group versus individual teaching, and fostering independence versus restraint; and one dimension of overall educational philosophy of the center: openness versus closedness of educational philosophy of the school, kindergarten, preschool, or child care center.

The third set of scales are our first attempts at systematic scales to characterize two important aspects of the layout and ambience of early childhood development centers.

In research terms, these three sets of scales could be considered to be measures of independent variables -- the first two social environmental independent variables, and the third one physical environmental independent variables.

The two sets of behavior maps and observation schedules are used to rate or evaluate early childhood environments in terms of a number of predicted behavioral consequences of the socio-physical environment, including group size, gender-, age- and ethnic-group mixing, degree of engagement, direction of behavior, exploratory behavior, social interaction, cooperation and competition, type of teacher involvement, and type of teacher-teacher interaction.

In research terms, these last two sets of behavior maps and observation schedules may be considered to be measures of dependent variables -- measures of cognitive, social, and motor behavior highly correlated with development.

The development of these scales and instruments is discussed at some length in *Some Effects of Physical and Social Environmental Variables on Children's Behavior* (Ph.D. dissertation, Clark University, 1982, available from University Microfilms International).

The use of these scales is also reported in a series of papers going back to early 1983. Some of the sources you may wish to consult for additional information include:

- . Design patterns for children's environments: Synopsis of a two-year research and design project (with U. Cohen & T. McGinty). In R. Thorne & S. Arden (Eds.), *People and the Man-Made Environment: Building, Urban, and Landscape Design Related to Human Behaviour*. Sydney, Australia: University of Sydney, Department of Architecture, 1980. Pp. 23-39.
- . The spatial organization of an early childhood development center: Open space, zoning, and circulation (with U. Cohen, B. Armstrong, & T. McGinty). *Day Care Journal*, Fall 1982, 1(2), 35-38.
- . Some effects of the organization of the socio-physical environment on cognitive behavior in child care settings. Paper presented at the Society for Research in Child Development meetings, Detroit, April 1983.
- . An empirical test of design patterns for children's environments. In D. Joiner, G. Brimicombe, J. Daish, J. Gray & D. Kernohan (Eds.), *People and the Physical Environment Research*. Wellington, New Zealand: Ministry of Works and Development, 1983. Pp. 290-301.
- . The state-of-the-art in play environment research and applications. In J.L. Frost & S. Sunderlin (Eds.), *When Children Play: Proceedings from an International Conference on Play and Play Environments*. Wheaton, MD: Association for Childhood Education International, 1985. Pp. 171-192.
- . Effects of the spatial definition of behavior settings on children's behavior: A quasi-experimental field study. *Journal of Environmental Psychology*, September 1986, 6(3), 205-231.
- . The physical environment and cognitive development in child care centers. In C.S. Weinstein & T.G. David (Eds.), *Spaces for Children: The Built Environment and Child Development*. New York: Plenum, 1987. Pp. 41-72.

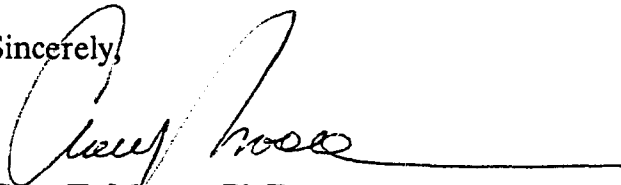
In a nut-shell, the findings from these studies -- using the above instruments -- suggest that the design of outdoor play environments and the architecture of child care centers lead to significant effects on a number of cognitive and social developmental variables.

For example, one study found that adventure playgrounds lead to more cognitive play while neighborhood play settings support more social play (cf. the 1985 paper above). Another study found that, while controlling for socio-economic differences between children and for stylistic differences between teachers, what we have been calling "well defined behavior settings" and also "modified open plan" child care centers both contribute to more cognitive and social activities than either than spatially poorly defined activity settings (the 1986 paper) and open plan or self-contained classroom plans (the 1987 paper). Complex interactions were found between the socio-economic level of the children, philosophy of education of the teachers, and the physical environment in affecting cognitive and social behavior. The last two of the above papers also report on these interaction effects.

In general, our findings have been taken as support for a general ecological model of environment-behavior interactions, and have been explained by reference to an interactional theory of child development and the environment (small parts of both the 1986 and 1987 papers). The findings have also pointed out some of the linkages between the architecturally designed environment and the social system of child care as they independently and in concern influence child care practice, social and cognitive behaviors, and, ultimately, child development.

My research group and I would be most interested to hear about your research related to these issues too. Please drop us a line. And if you have any questions about the use or analysis of data from these scales, please don't hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary T. Moore", written over a horizontal line.

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Enc.