

# This Week's Citation Classic

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**Allen K E, Hart B, Buell J S, Harris F R & Wolf M M.** Effects of social reinforcement on isolate behavior of a nursery school child.

*Child Develop.* 35:511-18, 1964.

[Developmental Psychology Laboratory, University of Washington, Seattle, WA]

Using a ten-second observational sampling system, the nursery-school teachers of a four-year-old demonstrated that systematic and discriminative timing of their attention resulted in desirable changes in the child's social interactions with peers. Random post-checks throughout the school year indicated the changes were durable. [The *Science Citation Index*® (SCI®) and the *Social Sciences Citation Index*® (SSCI®) indicate that this paper has been cited in over 200 publications since 1964.]

K. Eileen Allen

Department of Human Development  
and Family Life  
University of Kansas  
Lawrence, KS 66045

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"Ann was a four-year-old in the Developmental Psychology Laboratory Preschool at the University of Washington, where I was head teacher. The other teachers and I were concerned about her: instead of playing with other children, she withdrew from them, clung to adults, and displayed disturbing tic-like behaviors. Giving her increased amounts of nurturing support—a traditional approach—only made the problem worse. Finally, we consulted with Mont Wolf, a research associate working with the preschool staff. The consultation led to a collaborative study showing that teachers, by differentially timing their interactions with a child, could produce dramatic changes.

"What made this study a landmark? It defied tradition. First, it was a pioneer effort at Single N research in a naturalistic setting: 'little old nursery-school teachers' (as we were described by one psychologist) carried out exacting experimental work while conducting an exemplary preschool program. 'Collecting data on the hoof'—recording observations as we worked with children—is a term I coined that was widely associated

with these studies. Second, it was among the first studies to detail an experimentally rigorous approach to analyzing a child's social-emotional responses. We broke ground by rejecting Freudian psychodynamics and maturational determinism. Instead, we defined children's reactions operationally and so were able to quantify and then record them in a ten-second time-sampling observation system that produced a high degree of interrater reliability.

"The traditional child-development people scorned us as heretics—as experimentalists tampering with the fragile psyches of little children. But others received our study enthusiastically, partly because it appeared just when the application of Skinnerian methods to clinical and educational problems was causing a great stir. Since the appearance of this first study, our heresy has become an orthodoxy: it and the many studies that followed have been widely reprinted, stimulating replications and methodological elaborations in the US and abroad.

"For the authors, this pioneering work became the springboard for many years of research, application, and dissemination. For example, my own first text<sup>1</sup> presents behavioral procedures as the common base for an interdisciplinary team approach to treating developmental problems. (In 1980, this text received an award of excellence from the American Medical Writers Association.) Two other texts<sup>2,3</sup> are practical translations of applied research of the Edna A. Hill Child Development Laboratory Preschools at the University of Kansas, where I have been a member of the faculty since 1974. Now—nearly 20 years and goodness knows how many children since Ann and that first study—Betty Hart (the second author of the early study) and I have distilled even further what children and our research have taught us; in this latest effort,<sup>4</sup> we describe how to arrange what we believe to be the optimum learning environment for young children."

1. Allen K E, Holm V A & Schiefelbusch R L, eds. *Early intervention: a team approach*. Baltimore, MD: University Park Press, 1978. 489 p.
2. Allen K E & Goetz E M, eds. *Early childhood education: special problems, special solutions*. Rockville, MD: Aspen Systems Corp., 1982. 349 p.
3. Goetz E M & Allen K E, eds. *Early childhood education: special environmental, policy and legal considerations*. Rockville, MD: Aspen Systems Corp., 1983. 341 p.
4. Allen K E & Hart B. *The early years—arrangements for learning*. Englewood Cliffs, NJ: Prentice Hall. To be published, 1984.