

### **C. Ecology and Context in Intervention and Treatment**

**We used Zone-Management to make activities and interaction continuously available in the preschool.**

**Example:** An early study that employed an intervention in the ecology of the preschool (LeLaurin & Risley, 1972) demonstrated that through zone management, engagement and other aspects of personal behavior could be effectively changed and facilitated through specific arrangements of stimuli within the caregiving environment. Environmental organization today, using zone and other techniques, is a widely used general strategy for preventing many serious problem behaviors and for facilitating engagement in the design of preschool, public school, and health care programs (e.g., Nordquist & Twardosz, 1990).

**We used a Independence Intervention Package to improve preschool students' transitions from one activity to another, participation in groups, and independent work in the preschool.**

**Example:** In-classroom transitions can take an inordinate amount of time for young students with and without developmental disabilities. A recent study of early intervention classrooms has shown that arrangements of schedules, staff, the room, tasks, and consequences can have a powerful impact on student performance (Carta, Atwater, Schwartz, & Miller, 1990; Connell, Carta, & Baer, 1993; Sainato, 1990). One specific finding indicated that reducing transition time increased student engagement, which over several years, has been shown to be a protective factor with respect to placement into special education programs at kindergarten and first grade.

**We provided redesigned instructional environments in order to better support and maintain prosocial behaviors of children with disabilities.**

**Example:** Young children with behavioral risks need early intervention to increase positive interactions with parents, peers, and teachers in order to prevent serious emotional disturbance. We provided training and programming to reduce serious aggression and other antisocial behaviors for over 700 Head Start, Kindergarten, and first grade children in their classrooms (Kamps, Ellis, Wyble, Mancina, & Bednar, 1994; Kamps, Ellis, Mancina, & Greene, in press).

**Example:** We developed and tested inservice teacher training procedures and materials supporting minority issues and multicultural content in special education (Preston, Greenwood, et al., 1984; Utley, Delquadri, Tapia, & Blesz, 1994).

**In the context of inclusion, we demonstrated the importance of also incorporating individualized services and interventions to ensure student progress.**

**Example:** We demonstrated the benefits of social skills groups (Kamps, Leonard, Vernon, Dugan et al., 1992); cooperative learning/tutoring (Dugan, Kamps, Leonard et al., 1995; Kamps, Barbetta, Leonard, & Delquadri, 1994; Kamps, Leonard, et al., in press); and peer networks (Garrison-Harrell, Kamps et al., 1994; Potucek, Gonzalez-Lopez, Kemmerer, Kravitz, & Kamps, 1995) in improving the active the social engagement for students with autism included in the general education classroom.

**We used Classwide Peer Tutoring in order to increase the opportunities students have to make active responses to the curricula.**

**Example:** Rearranging reading, spelling and math instruction so that students tutor each other, rather than all listening to the teacher lecture, doubles the opportunities students have to respond to the material (Greenwood, Delquadri, & Hall, 1984; Greenwood, 1991a; Maheady & Harper, 1987). This work has been published in the Journal of Educational Psychology, Exceptional Children, Journal of Applied Behavior Analysis, and Journal of Behavioral Education, among others.

**Example:** We are adapting CWPT to better support the academic and language learning of limited English speaking students (Arreaga-Mayer, 1995).

**We contributed to the understanding of quality/fidelity of treatment and how these variations in treatment moderate student outcomes.**

**Example:** The use of checklists of intervention components as a means of assessing treatment fidelity have been helpful in documenting the effects of training and of monitoring implementation quality over time (Carta & Greenwood, 1989).

**Example:** Studies were completed examining the functional effects of improving the quality of implementation of CWPT on student outcome, demonstrating that low quality implementation quality is a risk factor for lower outcome (Greenwood, Terry, Arreaga-Mayer, & Finney, 1992).

**Examples:** Studies of CWPT students who failed to make expected levels of progress were important to understanding the effects of program implementation and of improving the program over time (Greenwood, Dinwiddie et al., 1987; Greenwood, Finney et al., 1994).

**We rearranged the home environment in order to increase parent's teaching and to promote safety and prevent injury.**

**Example:** We developed methods of parent tutoring that were effective and could be maintained over time (Duvall, Delquadri, & Hall, 1992; Walker & Greenwood, 1994).

**Example:** Both active (e.g., infant car seats) and passive injury prevention strategies (single occasion setting of home hot water heater thermostat at correct temperatures) have been investigated (Christophersen, 1989). This work was first published in the Journal of Applied Behavior Analysis and subsequently in Pediatrics, American Psychologist, American Journal of Diseases of Children, and Pediatric Clinics of North America. Observational procedures were also developed to assess dangerous behaviors in the home and methods used to decrease them (e.g., Mathews, Friman, Barone, Ross, & Christophersen, 1987).

**We arranged the pediatric clinic to promote improved compliance with medical regimens.**

**Example:** Patients were provided written instructions for the use of specific medication regimens and a system for reminding them about their appointments. These procedures have been demonstrated to be effective in a number of studies and replications (e.g., Finney, Friman, Rappoff, & Christophersen, 1985).