D. Engagement as Target for Change

We demonstrated the fundamental relationships between students' behavioral performance (engagement) and growth in developmental, academic, and social outcomes over time.

**Example:** An index of academic responding defined as engagement in writing, reading, and talk in the context of academic tasks and situations was shown to be a positive correlate of academic achievement (Greenwood, Delquadri, & Hall, 1984) and when increased via direct intervention based on ClassWide Peer Tutoring, it was shown to covary with significant growth in academic achievement (Greenwood, 1991; Greenwood, Delquadri, & Hall, 1989). This form of academic engagement was also shown to mediate between instruction and achievement when compared to alternative models not mediated this way (Greenwood, Terry, Marquis, & Walker, 1994).

We demonstrated that students' engagement in academic responding can be increased by manipulating the quality and quantity of response opportunities during instruction.

**Example:** A tutor gives a tutee opportunities to respond that would not otherwise be available in most teacher-mediated instruction (Greenwood, Delquadri, & Hall, 1984; Maheady & Harper, 1987). In this work, the increased engagement in writing, reading aloud, and academic talk that resulted was functionally related to increases in measures of academic achievement and shown to be a protective factor with respect to special education placement in later grades (Greenwood, 1991b; Greenwood, Terry, et al., 1994).

**Example:** Research has been completed on adaptations of ClassWide Peer Tutoring needed for use by students with mild retardation in both self-contained and integrated instructional settings (Mortweet, Perdomo-Rivera, Utley, Delquadri, & Greenwood, 1994).

**Example:** We demonstrated that small group instruction including choral responding and student-to-student interaction improved the engaged behaviors of students with autism in public school classrooms (Kamps, Dugan, & Leonard, 1994; Kamps, Leonard, Dugan, Boland, & Greenwood, 1991; Kamps, Walker, McGrale, & Rotholz, 1992).

We demonstrated that the productive language of preschoolers' could be increased if the teacher handled students' initiation requests by requiring (a) elaboration followed by (b) reinforcing consequences.

**Example:** Research with incidental teaching produced a major advance in our theoretical understanding of natural reinforcement processes (Hart & Risley, 1995). Results indicated that increases in elaboration were related to increases in the rate of language use. As a technique, incidental teaching is used nationally and it is a basis of several related forms of language intervention and of preschool teaching methodology (e.g., milieu language teaching; Hemmeter & Kaiser, 1990). Reports of this work have appeared in the Journal of Applied Behavior Analysis, and Education and Urban Society among others.

We demonstrated that parents could effectively engage their children in reading, writing, and spelling at home with measurable academic improvements at school.

**Example:** Several studies investigated procedures that parents could use to work effectively with their children at home on subjects taught at school. Parent tutoring was found to be highly effective with direct impact on achievement in school (Duvall, Delquadri, & Hall, 1992; Greenwood, Delquadri, & Hall, 1984; Thurston & Dasta, 1990). Engagement at home was functionally related to gains in academic achievement at school. This work has been published in the Journal of Applied Behavior Analysis, and Remedial and Special Education.

We demonstrated that appropriate recreational behaviors could be established within an impoverished environment.
Example: Recreational opportunities were created within the Housing Project community center focused on sports and games. Students were taught specific games and procedures used to maintain their engagement for major portions of the day (e.g., Pierce & Risley, 1974). Engagement in recreational behaviors was functionally related to reductions in problem behaviors in the community center and in the neighborhood.

We demonstrated that the physical appearance of the inner-city neighborhood could be improved through engagement in physical care and maintenance activities.

Example: A lawn care program was designed by community residents and Project investigators that involved random observational assessments in the community combined with group incentives for lawn production/maintenance (e.g., Christophersen, Doke, & Risley, 1974).

Example: An anti-littering program was designed by community residents and Project investigators that involved random observational assessments in the community combined with group incentives for litter reduction (e.g., Chapman & Risley, 1970).