

Foundations of Early Intervention - Chapter 2, Lesson 1

Narrative Text

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By the second half of the 20th century, new ideas in biological science, psychology, and human services had begun to redirect thinking about disability. Evidence of this can be found in the provisions of education law that has been enacted since the 1960s.

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Chapter 2 presents four influences that gained prominence during the later decades of the 20th century. These trends have had significant impact on medical, therapeutic, and educational treatment. As a result of these fundamental ideas, social expectations and opportunities for children with disabilities and their families have changed in significant ways.

These four trends are:

- The theory that intelligence is “plastic” and can be changed by environmental influences
- Systems theories, which take social interactions as well as biological heredity into account
- A social model of disability, which reframes the nature of disability
- The normalization principle, which redefined objectives for human services

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Lesson 1 of this chapter focuses on a theory of intelligence that emerged during the latter half of the 20th century, to revolutionize our understanding of human learning potential.

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Through the first half of the 20th century, most psychologists maintained that intelligence is genetically determined and “static,” or impossible to change (Safford & Safford, 1996). However, a growing body of research began to indicate that intelligence is influenced by environmental factors (Ramey, 1984). For instance, studies found that identical twins who were raised in different environments often scored differently on intelligence tests. Identical twins are the same biologically; therefore, the differences in IQ must be attributable to something else.

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In 1939, a study conducted by two psychologists in Iowa produced surprising evidence of environmental influence on intelligence. Harold Skeels and Harold Dye (Skeels & Dye, 1939) compared developmental outcomes for two sets of orphaned infants. The psychologists’ original task was to test infants at an overcrowded orphanage to identify children who were “unfit” for adoption due to mental deficit. Those babies were committed to a state institution. Children who scored in the normal range of intelligence

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were to be raised in the orphanage, unless they were adopted. Skeels and Dye followed both groups of children, and discovered astonishing changes in the children's developmental progress (Levine & Havinghurst, 1989; Safford, 1989).

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The 12 infants in the control group at the orphanage were from similar family backgrounds, and had tested mental ability in the normal range. Due to the crowded conditions at the facility, all of these babies were housed with 30 -35 other very young children. They received basic care, but orphanage personnel were too busy to provide individual attention and affection to so many babies.

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Skeels and Dye found that, with one exception, the infants at the orphanage quickly began to lose points on subsequent measures of intelligence. The children lost between 8 and 45 points, causing many to score below the normal range.

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The experimental group was comprised of 13 infants, who were considered unadoptable, because their IQ scores indicated mental deficiency. They were placed in a state institution for people with mental disabilities. Each baby was housed in a ward with older, brighter female residents of the institution. These children were the focus of attention, encouragement, playful interaction, and affection from both residents and staff members.

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Although these infants had been written off as hopeless cases, repeated testing showed increasing IQ scores. By about 4 years after the start of the study, all but one child tested within the normal range of intelligence. Two of the children achieved above average scores, and 3 children added 45 points to their original scores. On average, the group gained 27.5 points.

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Skeels and Dye attributed changes in the test scores to the children's *social environments*. Children who had been deprived of responsive attention and affection had lost ground cognitively; whereas, children in environments that offered responsive social interactions, had made unexpected progress.

However, the results and explanations offered by Skeels and Dye violated the common precept that intelligence is a hereditary and static trait (Anastasiow & Nucci, 1994). In the absence of corroborating evidence, implications of this study were largely disregarded by the scientific community. But, research on the relationship between early environments and developmental outcomes continued. In 1966, Skeels investigated the long term outcomes for both groups of orphans (Safford & Safford, 1996). (109)

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The children who had initially scored low on their intelligence tests had all been adopted. Their long term outcomes for education and adjustment as adults are quite positive, as compared with the outcomes for the group who had remained in the orphanage.

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Other researchers investigated the relationship between early environments and cognitive ability. In 1961, psychologist J. McVicker Hunt published his review of the research literature entitled, *Intelligence and Experience*. He concluded that findings did *not* support the premise that intelligence is genetically predetermined and unchangeable (Anastasiow & Nucci, 1994; Hunt, 1961; Spodek & Saracho, 1994). Science had amassed compelling evidence of “plasticity” in development.

This information generated optimism about the potential of children who might otherwise have been dismissed as “hopeless cases”. Hunt’s book stimulated interest in discovering what kinds of early environments and experiences could optimize young children’s intellectual growth (Anastasiow & Nucci, 1994; Safford, 1989; Safford & Safford, 1996).

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Policy-makers began to shift their focus from controlling human reproduction to promoting initiatives to improve children’s early environments. In 1965, Project Head Start was launched to provide environmental supports for young children in poverty. In 1968, the federal government established the Handicapped Children’s Early Education Program (HCEEP) (Bailey, 2000; Safford & Safford, 1996). It’s purpose was to fund model programs of comprehensive services for infants, toddlers and preschool age children with identified disabilities (Bailey, 2000). The initial appropriation for HCEEP was just one million dollars to support 25 projects. Ten years later, the investment in HCEEP had grown to 22 million dollars that funded 214 grants and contracts (Ysseldyke, Algozzine & Thurlow, 1992). Bringing together research and practice, the HCEEP demonstration projects began to establish the knowledge base for today’s field of early intervention (Safford & Safford, 1996; Safford, Sargent, & Cook, 1994; Ysseldyke, et al., 1992).

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During the last few decades of the 20th century, research evidence disproved the theory that intelligence is static. Research demonstrated that intelligence is plastic and can be influenced by experiences – especially during the first five years of life. Based on this evidence, federal policy began to fund programs to promote early development for young children in poverty, and young children at developmental risk due to disability. Hope for the potential of all children was raised, and many professionals from an array of disciplines began to focus on applying their skills to early childhood development.

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Resources:

Office of Head Start, U. S. Department of Health and Human Services, Administration for Children and Families

<http://www.acf.hhs.gov/programs/ohs/>