Predicting Reading Progress in Children Receiving Special Help

Nathlie A. Badian

Holbrook Public School
Holbrook, Massachusetts

Children's Hospital
Boston, Massachusetts

Harvard Medical School
Boston, Massachusetts

The main aim of the study was to determine whether performance on reading-related cognitive processing tasks would help predict reading progress in children receiving special help. The 86 subjects were initially aged six to eight years and most were followed up after two years. When variance due to IQ and age was accounted for, an orthographic processing task, phonological awareness (phoneme deletion), and digit-naming speed were significant predictors of later reading skills. A strength in phonological awareness differentiated initial poor readers who later made excellent gains in reading from poor readers who did not improve. Children whose reading deteriorated had serious weaknesses on tasks of naming speed and confrontation naming. Their poor lexical retrieval skills had a more deleterious effect on later reading than on initial. Indications were that for children diagnosed as poor readers at age six or seven years, prognosis is better for boys, and for garden-variety poor readers, than for dyslexics. Caution was urged in applying the term dyslexic to children in the first two school grades because many of them will be slow starters who do not have a persistent reading problem.
Early learning disabilities are associated with a poor prognosis for future academic success, and the effects of treatment on reading disability or dyslexia do not engender optimism (Finucci 1986; Schonhaut and Satz 1983). In their review of 18 follow-up studies of children with reading/learning disabilities, Schonhaut and Satz (1983) reported that the outcome was favorable for only four studies, though mixed for two. Finucci (1986) concluded that reading deficits are not completely remediated, though IQ and SES exert a positive effect on remedial success. Age at diagnosis may also contribute. In two of the studies reviewed by Schonhaut and Satz (1983), the youngest children at the time of initial assessment showed the greatest amount of academic progress at follow-up. However, in two other studies the opposite was true. In a more recent nine-year follow-up of a cohort of children, the 10 percent defined as poor readers gained only 0.34 grades in reading per year, in spite of very early identification and help for most of them (Badian 1988). Their yearly progress in reading was only about one-fourth of that made by the group as a whole.

A problem in longitudinal studies is that the stability of the diagnosis of reading disability or dyslexia is relatively low (Shaywitz et al. 1992). This finding is not unexpected as even small increments or decrements in reading scores of borderline cases will move them above or below cut-off points, whether the diagnosis is dyslexia, implying a discrepancy between actual and expected reading levels, or merely poor reading. In their longitudinal study of white boys in a Florida county, Satz and his colleagues (Satz et al. 1978) found that the incidence of reading disorders increased after first grade, remained at approximately 12 percent from grades two through four, and then increased to 20 percent between grades 4 and 5. Among the boys in the Satz study, only 6.1 percent with severe reading disability in grade 2 improved by the end of grade 5, and 30 percent of average readers had become problem readers by the end of grade 5. From their study of 414 children followed longitudinally from kindergarten, Shaywitz and her colleagues (1992) reported that only 28 percent of those classified as dyslexic in grade 1 were also classified as dyslexic in grade 3, and that only 17 percent classified in grade 1 would also be classified in grade 6.

The term “slow starters” has been used for children who meet criteria for reading disability or poor reading in the very early stages of reading, but are normal readers at follow-up (Badian 1988; Cox 1987; McGee, Williams, and Silva 1988). In comparisons of slow starters and long-term poor readers, continued poor reading has been found to be associated with paucity of literary experience at home and limited vocabulary (Cox 1987), lower maternal reading ability (McGee, Williams, and Silva 1988), and birth complications and lower SES (Badian 1988). Thus, environmental, and possibly genetic, factors appear to play a