

*TEACHING EARLY BRAILLE LITERACY SKILLS WITHIN A STIMULUS
EQUIVALENCE PARADIGM TO CHILDREN WITH DEGENERATIVE
VISUAL IMPAIRMENTS*

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Despite the need for braille literacy, there has been little attempt to systematically evaluate braille-instruction programs. The current study evaluated an instructive procedure for teaching early braille-reading skills with 4 school-aged children with degenerative visual impairments. Following a series of pretests, braille instruction involved providing a sample braille letter and teaching the selection of the corresponding printed letter from a comparison array. Concomitant with increases in the accuracy of this skill, we assessed and captured the formation of equivalence classes through tests of symmetry and transitivity among the printed letters, the corresponding braille letters, and their spoken names.

Key words: braille, instruction, stimulus equivalence, visual impairment

Braille is a system that enables individuals to read and write through touch. Each letter of the English alphabet is represented by a unique dot configuration represented by the presence or absence of six dots, each approximately 1 mm in diameter, within a matrix of two columns and three rows, with 1.5 mm between the midpoints of each adjacent dot. These small patterns differ only by the presence or absence of dots, making braille alphabet learning difficult (Millar, 1978).

The American Printing House for the Blind (2008) reports that there are currently 1.3 million legally blind individuals in the United States. According to the National Braille Press only 12% of legally blind individuals can read braille, in contrast to 50% of blind individuals who could do so in the 1960s (see Brittain, 2007). One of the greatest reasons for this decline in braille literacy has been the controversy of whether or not to teach braille when a blind child has some residual vision, in which

case it has become more popular to rely on magnification equipment or large print. Children with some residual vision account for approximately 85% of blind children because they are blind by the legal definition (i.e., vision is worse than 20/200 and cannot be improved with corrective lenses) but have some vision remaining (Holbrook & Koenig, 1992).

Certain degenerative conditions, such as glaucoma and degenerative myopia, have an onset early in childhood with vision worsening over time. Low-vision students, in particular those with degenerative visual impairments, are at risk for not receiving appropriate braille instruction while some level of sight remains (National Federation of the Blind, 2009). The use of augmentative technology with this population may delay the need to learn braille, but the transition to braille reading will be ultimately necessary to maintain literacy. These individuals in particular may benefit from braille instruction prior to losing their functional sight because relations can be established between braille and other symbols that already exist in their repertoires (i.e., letters and numerals; Hall & Newman, 1987).

One of the earliest skills for braille literacy development is the ability to name individual characters correctly. Difficulty in this basic skill

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