A common characteristic of individuals with developmental disabilities is a restricted range of interest. Developing procedures to establish new reinforcers for such individuals can promote the acquisition of new skills and ameliorate decreases in motivation related to satiation. Several procedures for conditioning reinforcers have shown to be effective in the research literature for establishing neutral stimuli as conditioned reinforcers. Most of this literature is basic research using animal subjects (e.g., rats, pigeons). Few applied studies have directly evaluated the use of these procedures. Additional research is necessary to determine their effectiveness. The purpose of this study was to: 1) establish simple stimuli as discriminative stimuli using single-stimulus vs. concurrent-stimulus discrimination training preparations in addition to using reinforcement schedule thinning, and 2) test the newly established discriminative stimuli for their reinforcing effects on simple motor responses with individuals with disabilities.