

Arvidson, H. (2000). *Comparative study of two modes of response: Direct selection and scanning*. Unpublished doctoral dissertation, Purdue University, West Lafayette. Lyle L. Lloyd (Advisor): 131 pages of text, 116 references, 9 appendices, 8 tables, and 17 figures.

This study investigated the validity of using scanning as an alternative mode of response to direct selection. Forty eight general education fourth-grade students from five classrooms responded to multiple-choice questions taken from a standardized test. Students indicated answers to questions by filling in circles next to letters with a pencil on an answer form under the direct selection condition and by using a switch to control a scanning device to illuminate lights next to letters under the scanning condition. Students were divided into four groups and then into eight subgroups defined by combinations of the variables of condition, sequence, and part. All of the students answered half of the questions using direct selection and the other half of the questions using scanning. Two groups of students took the test using direct selection first and scanning second, and the other two groups took the test using scanning first and direct selection second. Four subgroups of students answered the questions on Part 1 of the test using direct selection and Part 2 of the test using scanning. The other four subgroups answered the questions on Part 1 of the test using scanning and Part 2 of the test using direct selection. The number of correct responses given under the scanning condition was slightly higher than the number of correct answers given under the direct selection condition, but the difference was not significant. Scanning provided neither unfair advantage nor unfair disadvantage. The finding that scores were comparable provides evidence that scanning can be considered a valid accommodation for this population of students. It provides support for providing scanning as an alternative response mode for students with significant disabilities who cannot access tests in the standardized manner.