Sophie Hubbell
Section Topic: Inferential Statistics

Reference:

McDonnell, J., Thorson, N., Disher, S., Mathot-Buckner, C., Mendel, J., Ray, L. (2003). The achievement of students with developmental disabilities and their peers without disabilities in inclusive settings: an exploratory study. *Education and Treatment of Children, 26*(3), 224-236.

Research Question:

Does inclusion of children with developmental disabilities affect the performance of students without disabilities on state-wide criterion referenced tests in reading/language arts and mathematics?

Description of Results:

McDonnell et al. (2003) completed two one-way ANOVA tests to determine whether or not there was a significant difference between test scores of children without disabilities in classes with and without children with disabilities. For both tests, the null hypothesis was that the means of the student test scores in the two groups would be equal. An alpha value of .05 was used to determine significance. The degrees of freedom for both tests were 1 and 543 because there were two groups in each test and 545 students in each test. The resulting F values were .02 for reading/language arts and .39 for math. On the F table, the critical value for df $(1, \infty)$ at $\alpha = .05$ is 3.84. Therefore, the authors failed to reject the null hypothesis for both tests. Further, they concluded that the difference between test scores of students without disabilities in inclusive classes compared to non-inclusive classes is not statistically significant.

Significance of Results:

McDonnell et al. (2003) provide data to support the practice of including children with developmental disabilities in general education classrooms. In addition to providing evidence of no significant negative effect of inclusion on test results of children without disabilities in inclusive classes, the authors also provided evidence of a significantly positive effect on test results for children with disabilities in inclusive classes. These research findings help support educators arguments for inclusion. Educators are often faced with questions from parents of children with and without disabilities about how inclusion will affect their children. Often parents of students without disabilities fear their children's curricula will be not as challenging if they are in inclusion classes. They fear that teachers will "teach down" to the lower functioning students and ignore the needs of the higher functioning students. On the other hand, parents of students with disabilities in inclusive settings often fear that their children will not receive the individual attention they need to progress. The results of this study can be used by educators to help calm the fears of parents whose children are in inclusive classes and to provide evidence to administrators who doubt the benefits of inclusion.