

Research on the EDIT Strategy

Overview

Instruction in the EDIT Strategy focuses on teaching students how to find errors in products written on a computer. The research study included 37 fifth, sixth, and seventh graders who were randomly assigned to the EDIT Strategy instruction or to typical language arts instruction (19 students were in the experimental group; 18 students in the control group). All of these students had learning disabilities in the area of written expression. In addition, 25 average writers nominated by their teachers and enrolled in the same grades participated as a normative comparison group.

The experimental group received instruction in the EDIT Strategy during seven half-hour sessions spread over two weeks. The control group received instruction in editing skills via lectures and written materials for the same amount of time. Two measures were used: (a) the percentage of mechanical errors the student corrected in an experimenter-developed computerized passage (the correction measure); and (b) the ratio of errors to words in a computerized passage the student wrote (the generation measure). Tests were administered before instruction (pretests), after instruction (posttests), and three weeks after instruction was terminated (maintenance tests).

Results

A MANCOVA was used to determine whether statistical differences were present between the posttest scores of the experimental and control groups when the pretest scores were used as the covariate. They were statistically different: $F = 83.644, p < .001$. The experimental group's mean correction posttest score ($M = 80\%$ of the errors corrected) was statistically higher than the control group's correction posttest score ($M = 29\%$ of the errors corrected). Additionally, the experimental group made .05 errors per word (about 1 error for every 20 words) in their written passages, and the control group made .2 errors per word (about 1 error for every 5 words) in their written passages. Partial eta squared was equal to .839, representing a very large effect size.

When the maintenance tests were analyzed, similar results were found: $F = 84.126, p < .01$. The experimental group's mean correction maintenance score ($M = 78\%$ of the errors corrected) was statistically higher than the control group's correction maintenance score ($M = 19\%$ of the errors corrected). The experimental group made .07 errors per word (about 1 error for every 14 words) in their written passages, and the control group made .3 errors per word (about 1 error for every 3 words) in their written passages at maintenance. Partial eta squared was equal to .866, again representing a very large effect size.

When the posttest results of the students in the experimental group and control group were compared to the results of the normative comparison group, the MANCOVA revealed a significant difference [$F = 19.446, p < .001$]. Post hoc analyses revealed a significant difference between the control group and the other two groups on both measures. They also revealed no difference between the experimental group and the normative comparison group on both measures.

The experimental group's mean correction posttest score ($M = 80\%$ of the errors corrected) was similar to the normative group's mean correction posttest score ($M = 67\%$ of the errors corrected), and both of these groups earned statistically higher mean scores than the control group's mean correction posttest score ($M = 29\%$ of the errors corrected). Likewise, the experimental group made .05 errors per word (about 1 error for every 20 words), the normative group made .04 errors per word (about 1 error for every 25 words), and the control group made .2 errors per word (about 1 error for every 5 words) in their written passages. Partial eta squared was equal to .401, representing a large effect size.

Conclusions

Thus, instruction in the EDIT Strategy enabled students with writing disabilities to find and correct more errors in experimenter-generated passages and to write passages with fewer errors than their peers in the control group. The experimental students' posttest scores maintained three weeks after instruction was terminated. In addition, the performance of students with writing disabilities who received the instruction was not statistically different from the performance of average writers in the same grades. Therefore, the program enables struggling writers to learn editing skills that are equivalent to their average peers' editing skills.

Reference

Kubo, M., & Hughes, C.A. (in prep). Evaluating the effectiveness of an editing strategy for students with learning disabilities. (Contact Charlie Hughes at CAH14@psu.edu for more information.)

Other Reference

Woods-Groves, S, Hua, Y, Therrien, W.J., Kaldenberg, E.R, Kihura, R.W., & Hendrickson, J.M. (in press) An Investigation of the Efficacy of an Editing Strategy with Postsecondary Students with Developmental Disabilities. *Education and Training in Autism and Developmental Disabilities*.

Note: Another EDIT study has been submitted and another one is currently being conducted.