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ABSTRACT

Reported is a study undertaken to examine the influence of objective statement specificity on student learning resulting from the independent laboratory-based Physical Science Investigation Program. The study involved three teachers and 138 eighth-grade Regents students from six intact classes. Each teacher taught one section using specific behavioral objectives and one using nonspecific objectives. In both treatments, objective statements were presented prior to the instruction of the given unit. A nonrandomized control group, preposttest design was used. Pretest scores showed no significant differences between classes. Two-way analyses of variance of the posttest generated F-values that were not significant for the teacher and interaction source of variance. The treatment effects were significant ($p < .05$). Higher means were obtained by the groups provided with the specific behavior objectives. A post-hoc questionnaire indicated student perception of the use of behavioral objectives as being helpful generally, helpful in achieving higher grades, and helpful in providing guidance through the unit.
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THE EFFECT OF SPECIFIC AND NON-SPECIFIC BEHAVIORAL OBJECTIVES
ON EIGHTH GRADE P.S. I: STUDENT ACHIEVEMENT

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The Effect of Specific and Non-Specific Behavioral Objectives
On Eighth Grade P. S. I. Student Achievement

In response to the ongoing arguments over the usefulness of behavioral objectives for instruction, this study was an examination of the influence of objective statement specificity on student learning resulting from the independent laboratory-based Physical Science Investigations program.

The study involved three teachers, 138 eighth grade Regents students from six intact classes. Each teacher taught one section using specific behavioral objectives and one section of non-specific objectives. In both treatments, objective statements were presented to the students prior to the instruction of the unit, Chemical Activity. A non-randomized control group pretest-posttest design was used.

Content for the unit, objective statements and test items were agreed upon by the participating teachers. Similarly, during the unit, the teachers agreed upon how much of which type of help would be provided the students for which proportion of the unit.

Test items included multiple choice, fill-in and problem-solving questions; all items were given equal scoring weight; no partial credit was awarded for any partially-correct item. The odd/even split reliability coefficient was 0.73. The pretest was comprised of randomly selected item from the pool of contributions by the three teachers. The posttest was a randomly assigned reordering of the pretest items.

Pretest scores showed no significant difference between classes. Two-way analysis of variance of the posttest, administered three weeks following the pretest, generated f values that were not significant for the teacher and interaction sources of variance. However, the treatment effects were significant ($P < .05$) higher means were obtained by the groups provided the specific behavioral objective

statements. A post-hoc questionnaire indicated student perceptions of the use of behavioral objectives as being helpful generally, helpful in achieving higher grades and helpful in providing guidance through the unit.