

*INCREASED PEER-TEACHING WITH GROUP-ORIENTED
CONTINGENCIES FOR ARITHMETIC PERFORMANCE
IN BEHAVIOR-DISORDERED ADOLESCENTS¹*

TIMOTHY MCCARTY, SUSAN GRIFFIN, TONY APOLLONI,²
AND RICHARD E. SHORES

CENTRAL STATE PSYCHIATRIC HOSPITAL NASHVILLE, TENNESSEE
AND GEORGE PEABODY COLLEGE

Group-oriented contingencies were applied to increase the arithmetic problem-solving rates of four behavior-disordered adolescent residents in a psychiatric hospital. The experiment followed an ABAC reversal design consisting of baseline conditions (A_1 and A_2), and cumulative (B) and mixed (C) interdependent group-oriented contingency conditions. Under the cumulative arrangement, the subjects earned five cents for every correctly solved multiplication problem. The same conditions were in effect with the mixed contingency, except that each subject was required to work at least three problems before any subject could earn money. The results indicated consistent increases in the subjects' arithmetic computation rates as a function of the group-oriented contingencies. Concurrent observations were made across the four conditions of the experiment on four categories of the subjects' verbalizations: antecedent peer-teaching, consequent peer-teaching, positive statements, and negative statements. The subjects' rates of antecedent peer-teaching verbalizations covaried with the group-contingency-induced increases in their levels of computation behavior. The majority of the verbalization involved answers to number fact questions or redirecting peers to engage in on-task activities. The three other categories of the subjects' verbalizations that were observed—consequent peer-teaching, positive statements, and negative statements—were not found to covary with the subjects' altered rates of computation behavior.

DESCRIPTORS: academic behavior, classroom behavior, group contingencies, peer tutoring, mathematics, point economy, adolescents.

Received 16 January 1976.
(Final acceptance 7 September 1976.)

¹The full text of this manuscript is deposited with the National Auxiliary Publications Service (NAPS). For copies, order NAPS Document #02916. Order from ASIS/NAPS Co., C/O Microfiche Publications, 305 East 46th Street, New York, New York 10017. Remit with order for each copy \$3.00 for microfiche or \$7.75 for photocopies. Make checks payable to Microfiche Publications. The investigators express gratitude to Daniel Feldman and Jane Wilder for their assistance in preparing this manuscript and to Dr. Larry Thompson, Central State Psychiatric Hospital, Nashville, Tennessee, for his cooperation in supplying the setting and financial support for the experiment.

²Department of Special Education, California State College, Somona, Rohnert Park, California 94928.