Gifted Under-Represented Students


Fraleigh-Lohrfink, K.J., Schneider, M.V., Whittington, D., & Feinberg, A.P. (in press). Increase in Science Research Commitment in a Didactic and Laboratory Based Program Targeted to Gifted Minority High School Students. Roeper Review


Participation in a Skills Reinforcement Project (SRP) resulted in many Black, Hispanic and socioeconomically disadvantaged students qualifying for gifted program screening without recourse to affirmative action. Forty-five 6th-grade students who had scored in the 80th-96th percentiles on the California Achievement Test (CAT) and a matched comparison group (CG) were assessed. The SRP included Saturday classes in spring and fall and a 2-week summer residential component. Both SRP participants and CG were pre- and post-tested with the CAT. The SRP group made significantly greater gains in mathematics (86th to 92nd percentile equivalents) and, while not statistically significant, had a percentile gain twice that of the CG on reading.


The Skills Reinforcement Project (SRP) was designed to increase the basic skills of disadvantaged and minority youth in mathematics and language arts. Forty-five minority and economically disadvantaged 6th graders participated in a 110-hr. academic program on Saturdays and at a residential college during the summer. When compared with 46 students of similar SES, sex, and ethnicity, the SRP participants made statistically greater gains on pre- and posttest measures of math. Although not statistically significant, the gains made on the verbal measures were greater than those made by the comparison group.

Key elements of the program are outlined. When this program is repeated, the necessity of carefully selecting teachers in terms of training, personal characteristics, and "comfortableness" with the program is emphasized. Data indicate these students may need more time in school, more individual attention, and more specialized programs to provide the experiences necessary for full development of their abilities.


This research involved 36 students identified as "educationally disadvantaged" who scored above average on standardized achievement tests and completed a program to reinforce their academic skills in either language arts or mathematics and 28 control students who received no instructional intervention. Data indicate a significant effect of the instructional intervention for both achievement and aptitude test scores in language arts and math. Gains in math were significantly greater than in language arts. After instructional intervention, the majority of subjects were eligible and academically qualified for challenging gifted-talented programs.


Increasing concern has been focused on the under-representation of African-American and Hispanic students in programs for the academically talented. The Ravens Progressive Matrices (RPM) has been suggested as a possible instrument to remedy this situation; however, little research has been conducted about its validity in identifying academic potential in minority populations. A sample of low-income minority students was given the Ravens Advanced Progressive Matrices (APM) along with a more traditional measure of academic aptitude (the School and College Ability Test) to compare the ability of each to identify students who might profit from advanced-level coursework. There were differences among ethnic groups in results of both tests, but a significantly higher proportion of minority children scored at a high level on the RPM than on the traditional measure. In addition, the RPM does appear to be a useful instrument for identifying academic potential in students with limited English proficiency. However, there are still issues and concerns surrounding the use of the APM as the sole...
instrument for selecting students to participate in special programs stressing high level academic standards and content. The RPM appears to hold more promise as a general screening instrument to be used in conjunction with other measures to identify students with academic potential who could profit from special programs designed to enhance their academic skills.