Operation Astra: A Curriculum Development Project for Academically Gifted Students

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One of the most promising trends in education during the past decade has been the increased participation in curriculum development on the part of scholars in the academic disciplines. The curriculum reform movement that began in mathematics and the physical and biological sciences clearly demonstrates that fruitful instructional materials can be produced through collaboration and shared thought of university scholars, classroom teachers, and specialists in learning and educational methodology. The approach used by such well known projects as the Physical Science Study Committee, the School Mathematics Study Group, and others, suggests a model for curriculum development that is particularly applicable to the kinds of experiences that should characterize educational programs for the gifted.

OPERATION ASTRA, the Hartford, Connecticut, Regional Planning Program for the Academically Gifted Child, represents this exciting new model for curriculum development in action. Supported by a PACE grant, ASTRA combines the respective competencies of teachers, subject matter experts, and educational specialists in a regional curriculum development effort that involves the city of Hartford and surrounding communities, the University of Connecticut, the METRO regional planning agency, and the Connecticut State Department of Education.

The project is aimed at the construction of a series of supplementary enrichment units that are purposefully designed to further the intellectual development of youngsters with identifiably superior abilities. The units can be used with groups of gifted youngsters or with individual students in the form of independent studies. The long range plan will embrace all subjects and all grades; however, initial work is being focused on the middle grade level in the areas of mathematics, the humanities, and the social sciences.

This attempt to construct enrichment experiences for students who display extraordinary motivation and learning capacity is being guided by certain theoretical principles of education for the gifted formulated by Virgil S. Ward. These underlying principles emphasize instruction in the methods of inquiry in a given discipline and the investigation of certain aspects of subjects that are now ordinarily encountered in the regular curriculum. The enrichment units will center around unitary themes within a given discipline and themes that cut across the traditional subject matter boundaries. The units will focus on types of studies that deal with functional concepts, significant theses, hidden realities, and the organizational principles of a particular segment of knowledge. The design of the units encourages maximum involvement on the part of students with emphasis placed on selective reading, writing, discussion, and creative production.

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Each unit will be field tested in special classes for gifted youngsters and as independent studies provided for individuals and small groups of students. As feedback is obtained through initial trials, appropriate revisions will be introduced into the program. The curriculum development teams working in cooperation with a media specialist ultimately hope to produce and package comprehensive sets of units that are readily adaptable to a variety of situations where enrichment is warranted.