

Contents

- v **Preface**
- 1 **Chapter I**
SMPY's Model for Teaching Mathematically Precocious
Students
Camilla Persson Benbow
- 27 **Chapter II**
The Autonomous Learner Model for the Gifted and
Talented
George T. Betts
- 57 **Chapter III**
The Integrative Education Model
Barbara Clark
- 92 **Chapter IV**
The Learning Enrichment Service (LES): A Participatory
Model for Gifted Adolescents
Jerry Ann Clifford, Ted Runions and Elizabeth Smyth
- 126 **Chapter V**
The Purdue Three-Stage Enrichment Model for Gifted
Education at the Elementary Level
John Feldhusen and Penny Britton Kolloff
- 153 **Chapter VI**
The Purdue Secondary Model for Gifted and Talented
Youth
John Feldhusen and Ann Robinson
- 180 **Chapter VII**
The Grid: A Model to Construct Differentiated
Curriculum for the Gifted
Sandra N. Kaplan
- 194 **Chapter VIII**
The SOI System for Gifted Education
Mary Meeker and Robert Meeker
- 216 **Chapter IX**
The Enrichment Triad/Revolving Door Model: A
Schoolwide Plan for the Development of Creative
Productivity
Joseph S. Renzulli and Sally M. Reis
- 267 **Chapter X**
The Secondary Triad Model
Sally M. Reis and Joseph S. Renzulli

-
- 306 **Chapter XI**
Cultivating Simultaneous Student Growth in Both
Multiple Creative Talents and Knowledge
Calvin W. Taylor
- 352 **Chapter XII**
Talents Unlimited: Applying the Multiple Talent Approach
in Mainstream and Gifted Programs
Carol Schlichter
- 391 **Chapter XIII**
The Enrichment Matrix Model
Abraham J. Tannenbaum
- 429 **Chapter XIV**
Fostering Effective, Independent Learning Through
Individualized Programming
Donald J. Treffinger
- 461 **Chapter XV**
The Cognitive-Affective Interaction Model for Enriching
Gifted Programs
Frank E. Williams

Preface

How Did This Book Come About?

Our knowledge about the education of gifted and talented students has grown rapidly during the past several decades, and in recent years there has been a veritable explosion of new books, journal articles and scientific papers. This expansion of knowledge has resulted in a rich repository of information about new theories, ideas, research findings and descriptions of a broad variety of identification and programming practices.

One of the more favorable events of recent years has been an attempt on the parts of several writers to synthesize the growing body of information about the gifted and talented into systems and models that can be used as the basis for program organization and development. In spite of the deepening interest and new wave of literature, however, there is no single source to which students and practitioners can turn for a survey of the major models that have been designed to guide special programs for highly able youth.

The primary objective of this book is to provide such a survey and, in the process, to encourage a more critical understanding and sounder utilization of the principles and practical procedures set forth in each model. Implicit in this work is my own strong conviction that the consumer of information about methods for serving the gifted should have at his or her disposal a fair and representative description of that which is available in the "marketplace" of ideas about how we can organize the delivery of services to special populations. Such information is vital for both researchers who wish to examine the effectiveness of particular approaches to programming, and practitioners who must make informed decisions about the adoption of a major plan or pattern of program organization. One of my strongest beliefs about the field of education for the gifted and talented (or any service oriented field, for that matter) is that program success is a direct function of the degree to which a program is based on a unified and coordinated set of principles. Without such an organizational pattern, programs are likely to end up being random collections of scattered practices that lack theoretical integrity and internal consistency. In such an "anything goes" atmosphere, we are likely to lose sight of the major goals that give uniqueness to a field which is striving to differentiate between general education and education for a specially designated population. The systems and models included in this book were selected because they represent organized and unified approaches to serving gifted children and youth. As such, they should be viewed as both practical and theoretical compasses that can be used to guide us toward the goals set forth in the respective models.

Two Kinds of Models

In a review of the literature on programs for the gifted and talented, Silverman (1980)¹ found over sixty provisions currently being used to provide services for gifted students at the elementary and secondary levels. Silverman's list includes mainly patterns of administrative organization such as full-time classes, summer programs, apprenticeships, pull-out programs, etc. Although these provisions are sometimes referred to as "models," I have attempted to make an important distinction between the kinds of provisions included on Silverman's list and the general type of model that has been selected for inclusion in this book. For purposes of discussion I will deal with this issue by referring to one category as Administrative Models and the other as Theoretical Models.

Administrative models consist of patterns of organization and procedures for dealing with such issues as how we should group students, develop schedules for the time spent in special programs, and arrange for the delivery of services. Theoretical models, on the other hand, consist of principles that guide the instructional process and give direction to the content, thinking processes, and outcomes of learning experiences that might take place within any given administrative pattern of organization. Theoretical models are mainly influential in determining the quality of special program experiences, whereas administrative models are more concerned with the efficiency and "smoothness" of program operation and the ways that special programs "fit into" the total school program.

It should be pointed out that certain administrative models sometimes evolve into *de facto* theoretical models. Acceleration, for example, has traditionally been viewed as an administrative model; however, when it is used mainly to promote more rapid coverage of traditional subject matter, then it also assumes theoretical purposes. Theoretical models are based on collections of principles about the nature of learners and the learning process. As such, they can generally be applied to almost all patterns of administrative organization. One of the criteria for selecting models for this book was that the material fall mainly into the category of a theoretical model. This type of material represents a more analytical treatment of issues related to identification and programming; and as such, it has greater potential for giving direction to the substantive (rather than organizational) nature of our field. And although it is undoubtedly valuable to debate the advantages and disadvantages of various administrative models, I believe that theoretical models are more provocative and therefore make for more lively reading and greater opportunity for critical analysis.

What Is Different About This Book?

This book differs from existing texts in several important ways. First and foremost, the book contains descriptions of the major systems and models that were specifically developed to guide programs for the gifted and talented. In the early years of special programming for the gifted, most of the literature dealt with administrative models or the application of models that were developed for other purposes, usually general education. Most of these models focused on the development of cognitive and affective processes (e.g., Bloom's Taxonomy, Kohlberg's moral development model), or systematic procedures for the organization and delivery of instructional strategies (e.g., Taba's teaching strategies program, Suchman's inquiry strategies model). These models served a useful purpose in the evolution of our field for two basic reasons. First, they represented an early effort to search for "something different" from that which was

¹Silverman, L. K. (1980). Secondary programs for gifted students. *Journal of Education of the Gifted*, 4(1), 30-42.

Camilla Persson Benbow

I

Camilla Persson Benbow
Associate Professor
Department of Psychology
Iowa State University

Dr. Camilla Persson Benbow worked at the Study of Mathematically Precocious Youth (SMPY) at Johns Hopkins University for nine years. In the end she was its co-director along with Professor Julian C. Stanley, the founder of SMPY. In July 1985 Dr. Benbow began as an associate professor in the Department of Psychology at Iowa State University (ISU). A new branch of SMPY, called "SMPY at ISU," has been created at Iowa State University. SMPY at ISU carries out the SMPY longitudinal studies and is in the process of starting SMPY programs there. When Dr. Stanley completely retires, SMPY's activities will be based at Iowa State University under Dr. Benbow's direction.

Summary

SMPY's Model for Teaching Mathematically Precocious Students

One practical model for providing sound programming for most intellectually talented students can simply be accomplished by schools' allowing curricular flexibility. For over a dozen years, the Study of Mathematically Precocious Youth (SMPY) at Johns Hopkins has utilized already available educational programs to meet the needs of its talented students through educational acceleration. SMPY students are offered a "smorgasbord" of special educational opportunities from which to choose whatever combination, including nothing, best suits the individual. Some of the options are entering a course a year or more early, skipping grades, graduating early from high school, completing two or more years of a subject in one year, taking college courses on a part-time basis while still in secondary school, taking summer courses, and credit through examination. Clearly, SMPY utilizes already available educational programs to meet the special needs of talented students. Because this approach is extremely flexible, teachers or administrators can choose and adapt the various options in ways to fit their schools' unique circumstances and their students' individual abilities, needs, and interests.

Moreover, this method avoids the common criticism of elitism and costs little for a school system to adopt. Actually, the various accelerative and enriching options devised by SMPY may save the school system money. Yet this rather simple adjustment, i.e., advancing a gifted child in each school subject to the level of his/her intellectual peers, is rarely made because of bias against acceleration. It is important to note, however, that no research study to date has found properly effected educational acceleration detrimental, but rather the contrary.