

# TABLE OF CONTENTS

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<b>INTRODUCTION</b> . . . . .	1
<b>CHAPTER 1:</b> The Talent Development Framework: Overview of Components and Implications for Policy and Practice. . . . .	7
<i>Rena F. Subotnik, Paula Olszewski-Kubilius, and Frank C. Worrell</i>	
<b>CHAPTER 2:</b> Identification and Assessment in a K–12 Talent Development Framework. . . . .	25
<i>Eric Calvert</i>	
<b>CHAPTER 3:</b> Programming for Talent Development Inside of School. . . . .	43
<i>Sally C. Krisel</i>	
<b>CHAPTER 4:</b> Programming for Talent Development Outside of School. . . . .	63
<i>Susan Corwith</i>	
<b>CHAPTER 5:</b> Curriculum and Instruction Within a Talent Development Framework. . . . .	95
<i>Tamra Stambaugh</i>	
<b>CHAPTER 6:</b> Serving Low-Income and Underrepresented Students in a Talent Development Framework . . . . .	129
<i>Carol V. Horn</i>	
<b>CHAPTER 7:</b> Performance Skills for Academic Talent Development: Integrating Sport and Performance Psychology Skills Into the Classroom . . . . .	153
<i>Steve Portenga</i>	

**CHAPTER 8:**

A Model of Talent Development From the  
World of the Visual Arts Inside and Outside of School. . . . 185  
*Rhoda Rosen and Linda Jarvin*

**CHAPTER 9:**

Mentoring and Developmentally Productive Environments  
to Support Talent Development . . . . . 205  
*Steven E. Knotek and Leslie M. Babinski*

**CHAPTER 10:**

The Development of Creativity Within Talent Domains. . . . . 231  
*Alane Jordan Starko*

**CHAPTER 11:**

Motivation: A Critical Lever for Talent Development . . . . . 253  
*Frank C. Worrell*

**CHAPTER 12:**

Evaluating the Effectiveness of Talent Development Programs . . . 281  
*Frank C. Worrell, Paula Olszewski-Kubilius, and Rena F. Subotnik*

**CHAPTER 13:**

Addressing Misconceptions About the Talent Development  
Framework and Implications for Policy . . . . . 299  
*Paula Olszewski-Kubilius, Frank C. Worrell, and Rena F. Subotnik*

**ABOUT THE EDITORS** . . . . . 307

**ABOUT THE AUTHORS** . . . . . 309

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# Introduction

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The three editors of this book have been working within the field of gifted education in some capacity all of their professional careers. We share a common and passionate interest in how talent is manifested and best developed across the lifespan. However, the motivation for our interest in these issues varies. Paula Olszewski-Kubilius, as the director of a talent search organization, has been designing, implementing, and studying outside-of-school programs for gifted learners for more than 35 years. Rena F. Subotnik's own experience attending a selective science, technology, engineering, and math (STEM) high school and studying elite talent in both STEM and the arts led her to believe that the field should focus more on studying and promoting giftedness within specific domains. Her work at the American Psychological Association deepened her interest in the role of psychosocial skills in the development of childhood ability into adult achievement. Frank C. Worrell brings his expertise about the cognitive, psychological, and cultural factors that affect learning to this work. His particular focus has been on how these factors apply to learners who have typically been underrepresented and underserved in gifted programs. All of the editors straddle the roles of researcher and practitioner and have attempted to translate the research on giftedness and talent development into thoughtful interventions for students. This is difficult work, and the aim of this book is to help others do the same.

The concept of *talent development as a framework for gifted education* means different things to different people, and the term is often used generically. For the purposes of this book, the talent development framework, outlined in the first chapter, is based on the megamodel proposed by the

editors (Subotnik, Olszewski-Kubilius, & Worrell, 2011) in the publication “Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science.”

## ORGANIZATION OF THE BOOK

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Chapter 1 sets the stage for the chapters that follow, illustrating and describing the implications for components of educational practice with talented learners. The main tenets of the talent development framework include an emphasis on talent development *within* domains, each with its own unique trajectory; the important role of psychosocial skills; the malleability of abilities and psychosocial skills, which can be increased through opportunity and targeted cultivation; and an emphasis on achievement as the marker of giftedness as students develop.

In Chapter 2, Eric Calvert addresses the implications of the talent development framework for identification. He emphasizes that viewing ability as malleable and domain-specific will require more varied identification tools sensitive to domain-specific abilities and to different levels of ability within domains. He also stresses that identification within a talent development framework will need to be an ongoing and continuous process, with a focus on finding potential as well as demonstrated, advanced achievement.

In Chapter 3, Sally C. Krisel reviews program models consistent with a talent development framework. She emphasizes that program models must match the stage of talent development, initially focusing on drawing out potential and sparking interest in young children, then developing competencies within domains, and eventually fostering deep commitment and engagement and a domain-related, scholar identity. She also emphasizes that talent development requires a systemwide approach with an array of services and programs that are fully integrated into the core culture and curriculum of the school.

In Chapter 4, Susan Corwith focuses on the important role of outside-of-school programming for talent development, recognizing that although some talents are developed primarily outside of school and some primarily within school, no talents, even academic ones, are developed

exclusively within school. Corwith details the advantages and benefit of outside-of-school programs, the challenges of access and participation for low-income students, and various program models for supplemental programming, consistent with stages of talent development.

In Chapter 5, Tamra Stambaugh describes seven key components of curriculum for talented learners within a talent development framework. These include a focus on long-term outcomes for students, curriculum that is strength-based and content-specific, curriculum that is progressive and developmental, curriculum that includes a focus on psychosocial skills, curriculum that is differentiated to develop expertise and creativity, curriculum that promotes access and continuous growth, and curriculum that focuses on the generation of authentic, performance-based products.

In Chapter 6, Carol V. Horn describes how the talent development framework serves and responds to the needs of underrepresented gifted learners with its emphasis on the early identification of potential, its use of advanced curriculum to draw out talent, its emphasis on continuous assessment and talent mining, and its focus on early programming designed to prepare learners for subsequent advanced programs. Horn describes the Young Scholars program widely implemented in Fairfax County, VA, as a model for a districtwide approach to talent development for diverse learners.

In Chapter 7, Steve Portenga emphasizes that all talent domains require some demonstration of performance. He draws on the literature from sport psychology to discuss important psychosocial skills that can be cultivated to enhance students' experiences as well as their achievement. Across all domains of talent, the ability to actively and constructively engage in the talent domain and the ability to intentionally manage one's own talent development are important psychosocial skills for optimizing the talent development process. Important skills for improving performance consistency include intentional planning for performances, concentration, and trust in one's preparation. Educators can help students manage performance pressure by giving students opportunities to experience competition and pressure in smaller doses and teaching coping skills for anxiety, such as deep breathing.

In Chapter 8, Rhoda Rosen and Linda Jarvin describe a talent development trajectory for the visual arts. They note the important role of parents in the early stages, specifically in exposing children to various forms of art and providing materials for them to make art at home. As children

demonstrate interest, the authors recommend supplementing in-school programming—which is often limited except in specialized art schools—with summer and outside-of-school arts-focused programs, as well as continuing exposure through cultural institutions, such as museums and galleries. Advanced courses are more available at the secondary level, but the authors stress that as students develop, it is important for them to associate with professionals who can provide tacit knowledge about training, education, and careers in arts fields.

In Chapter 9, Steven E. Knotek and Leslie M. Babinski focus on mentoring and features of productive environments that foster talent development. They define mentors broadly to include parents, teachers, and other adults within a child's environment and community, as well as individuals who serve as mentors in structured, more formal programs. Knotek and Babinski emphasize the importance of a trusting, respectful relationship between mentor and mentee, as well as training for mentors, who need both content expertise, particularly for older students, and skills for working effectively with children or young adults. The authors stress how important mentors can be for all children, particularly in providing information about talent development pathways in domains, advising students on accessing outside-of-school learning opportunities, and helping students develop important psychosocial skills.

In Chapter 10, Alane Jordan Starko focuses on the development of creativity. She addresses some of the big questions in the field, such as whether creativity is general or domain-specific. She presents a framework for the development of creativity that includes fostering curiosity, imagination, playfulness, and openness to experience in young children; teaching the methods of inquiry within disciplines as students gain content knowledge; and providing opportunities for work on authentic, creative products with adult professionals for adolescents and young adults. According to Starko, creativity can and should be systematically developed over time, as everyday efforts can lead to and develop future high-level creative efforts.

In Chapter 11, Frank C. Worrell discusses the important role of motivation in talent development. He stresses that motivation should be viewed as a constellation of constructs that are developing over time and are related in a recursive manner to outcomes such as academic achievement. He distinguishes between “push” factors that are more internal to the individual (e.g., attributions, interest, intrinsic motivation, mastery orientation, self-efficacy, self-regulation, time constructs, and autonomy) versus “pull”

factors that are more external or environmentally oriented (e.g., belongingness, competition and cooperation, extrinsic motivation, and the role of parents and teachers). Worrell recommends fostering motivation by providing constructive, growth-oriented feedback to students; listening to students' explanations for success and failure and reframing as needed; developing supportive relationships with students; and providing opportunities in the classroom for students to pursue their personal interests, engage in constructive competition, and exhibit personal and social responsibility.

In Chapter 12, the editors address evaluation issues within the talent development framework. They emphasize that outcomes should be specified for both intellectual and psychosocial growth via an integrative curriculum and that these outcomes will vary for different stages of talent development (i.e., potential, competence, and expertise). They also delineate important evaluation questions that should be asked at the program, school, and district levels, with the goal of ensuring that students are receiving appropriate services and support on their talent development journeys.

The final chapter of the book, Chapter 13, also written by the editors, addresses some of the main questions—and misperceptions—about the talent development framework. It is our hope that by engaging with the chapters in this book, educators will gain a better understanding of the talent development framework and its implications for best practices with talented students.

## REFERENCE

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Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest*, 12, 3–54. doi:10.1177/1529100611418056

## The Talent Development Framework: Overview of Components and Implications for Policy and Practice

*Rena F. Subotnik, Paula Olszewski-Kubilius, and Frank C. Worrell*

The predominant practice of gifted education continues to focus on high general cognitive ability. This practice is reflected in the fact that intelligence tests are employed in many schools and districts for entrance into gifted programs, and their use is incorporated as an acceptable means of identification in the policies of many states (National Association for Gifted Children [NAGC], & Council of State Directors of Programs for the Gifted [CSDPG]), 2015). In our view, identifying and serving specific abilities, such as mathematics or music, is an equally productive line of inquiry for research in the field and also provides a better framework for educational practice. There are several significant reasons for promoting this view of giftedness:

1. Domain-specific skills, such as number sense or musicality, are more strongly correlated with interest and achievement in associated talent areas than general cognitive ability (see more about this in the section on domain-specific abilities in this chapter).
2. Giftedness that emphasizes domains of talent rather than general cognitive ability is more easily understood and appreciated by the public. Adults can readily observe, appreciate, and support the need for special services for dance, sports, writing, or science talent development as opposed to IQ.



3. Looking for children with domain-specific abilities will result in more children having their talents identified and nurtured.
4. Students identified with high general cognitive ability may have different patterns of strengths and interests in subjects such as mathematics, language arts, science, or social studies that are masked by a high IQ score. Therefore, a domain-oriented program of identification and programming will result in reducing the range of student abilities within a given gifted program, leading to a better match between students and programs.
5. The role of education is to develop students' gifts or talents in a specific domain. There are no educational programs to develop IQ.
6. In adulthood, giftedness is determined by actual accomplishments. Thus, ability is less important than what one is using the ability to *do*.

## CHALLENGES TO USING A DOMAIN-ORIENTED VIEW OF GIFTEDNESS

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Moving to a domain-oriented perspective of giftedness challenges long-standing traditions in the field for several reasons. First, there is a strong research base on the predictive validity of general cognitive ability in academic and occupation functioning (Brody, 1997; Neisser et al., 1996; Nisbett et al., 2012), and general cognitive ability is one of the strongest predictors of achievement in the academic domains, second only to previous achievement in those domains (Worrell, 2009). Second, there is a long-standing belief that giftedness is global and that a child classified as gifted on the basis of an IQ score is *gifted for life*: “Gifted children do grow up, and they become gifted adults” (Jacobsen, 1999, p. 9). Third, using IQ allows school districts to set a definitive cut score for entrance into gifted programs, allowing for a clear delimitation of who can get in, which also has advantages for financial planning and associated policy.

Domain-based identification will require changes not only in identification and selection practices, but in programming as well. That is, schools will have to provide programs to develop specific talents, rather than general classes for gifted students (Worrell & Erwin, 2011). Notably, although

we have some knowledge about tools for identifying specific abilities and skills that are important in some domains (e.g., spatial and mathematical reasoning ability in science, technology, engineering, and mathematics [STEM]), we know less about early indicators of talent in the social sciences and humanities. In addition, performing arts and sport fields rely on experts to make decisions regarding talent via observations and auditions. At the precollegiate level, teachers, for better or for worse, are not viewed as reliable judges of academic giftedness, particularly in the early grades. An especially challenging impediment to implementing talent development that applies to any approach to identifying giftedness is the effect of poverty and lack of opportunity, which has been shown to depress performance on tests and other displays of academic ability. It is also the case that young children will not necessarily have special interest or aptitudes, but will have learning needs (e.g., a faster learning rate) that require adjustments to their general school program.

## COMPONENTS OF A TALENT DEVELOPMENT PROGRAM MODEL

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A comprehensive talent development program incorporates seven components (Subotnik, Olszewski-Kubilius, & Worrell, 2011). Each component is described below, including implications for practice and impediments to implementation.

### *Abilities Are Domain-Specific and Malleable*

Research has shown that although general IQ is a reasonably good predictor of school performance, it is a weaker predictor of adult accomplishments. Longitudinal studies that followed individuals with high childhood IQ into adulthood found that most do not achieve or even aspire to eminence (Subotnik, Kassin, Summers, & Wasser, 1993). Additional research challenged the view of IQ as immutable and suggested that there is a reciprocal relationship between IQ and years of schooling (Ceci & Williams, 1997). This outcome is especially critical to keep in mind for children who