

Introduction

Curriculum Design in Gifted Education

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Introduction

Kristen R. Stephens and Frances A. Karnes

Curriculum is a fundamental component of our educational system serving to guide both teachers and students through the teaching and learning process. In recent years, the examination of what and how we teach has intensified with the introduction of the Common Core State Standards in Mathematics and English Language Arts. Although conversations pertaining to these and other standards can be quite contentious, these new standards have encouraged critical reflection around what is important for students to know, understand, and do within and across grade levels.

As modifications are made to the general curriculum, educators of the gifted must closely analyze the implications of such changes for the curriculum for gifted students. As curriculum reformers tout the implementation of these new standards as providing a more rigorous curricular experience for students, gifted education advocates must acknowledge that these more rigorous standards will still require adjustments to address the educational needs of our gifted learners. The idea of a “one-size-fits-all” curriculum is not only impractical, it is disingenuous given the unique learning needs of each student in our classrooms.

The goal of this text is to present the current thinking and scholarship regarding curriculum development for the gifted to assist educators in developing new and/or modifying existing curriculum for gifted learners. The text is organized into five sections: Foundations, Survey of Curriculum Models, Curriculum in the Core Subject Areas, The Role of Assessment in Curriculum Development, and Trends and Future Directions for Curriculum for the Gifted.

Section I: Foundations provides the reader with the essential background knowledge needed to develop curriculum for the gifted.

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In Chapter 1, Angela Housand highlights the characteristics of gifted students and their implications for curriculum development. Components of the curriculum that are responsive to the curious, creative, capable, connected, and conscientious learner—all aspects of the gifted learner—are examined.

Chapter 2 by Elissa Brown provides an overview of the history of curriculum theory and practice. Social and political tensions as well as advancements in our understanding of the development of human cognition are all explored in relation to their influence on curriculum development in both general and gifted education.

Jessica Hockett and Catherine Brighton present the principles and best practices of general curriculum design in Chapter 3. The source and organization of the curriculum, the goals and priorities of the curriculum, and the tailoring of curriculum are all discussed in the context of developing high-quality curriculum for all students.

In Chapter 4, Susan Johnsen outlines how to approach the aligning of curriculum to relevant standards. Three alignment models are presented and consideration is given to how curriculum documents can be appropriately differentiated for gifted students.

Section II: Survey of Curriculum Models is comprised of Chapter 5 by Ann Robinson and Audrey Tabler. This chapter surveys the major curriculum models and frameworks currently in use to guide curriculum development. Descriptions of selected models, a summary of efficacy research, and examples of projects currently implementing each model are provided.

Section III: Curriculum in the Core Subject Areas examines curriculum development from the perspective of specific content areas—English language arts, mathematics, science, and social studies.

Elizabeth Fogarty, in Chapter 6, describes the characteristics of gifted English language arts students, explains why they require different experiences in the classroom, and offers suggestions for modifying curriculum to better meet the needs of these students.

In Chapter 7, M. Katherine Gavin highlights the essential components of an effective mathematics curriculum for gifted students. Instructional strategies and sample curriculum materials are shared to support the development of students as mathematicians.

Chapter 8 by Michael Matthews provides contextual considerations for developing science curriculum for the gifted and suggestions for modifying, evaluating, and selecting existing instructional materials in the sci-

ences. The role of argumentation in the science classroom and recommendations for Science Olympiad preparation are also offered.

Developing rich and challenging experiences for gifted students in the social studies is the focus of Chapter 9 by Shelagh Gallagher. The components of a differentiated social studies curriculum and ideas for enhancing learning experiences in social studies through problem-based learning are shared.

Section IV: The Role of Assessment in Curriculum Development includes Chapter 10 by Carolyn Callahan and examines curriculum implementation, management, and assessment. All of the processes necessary to ensure that the curriculum is achieving desired outcomes are detailed in this comprehensive chapter.

Section V: Trends and Future Directions for Curriculum for the Gifted explores special areas of consideration in the curriculum development process, including creativity, technology, service-learning, social-emotional development, and cultural responsiveness.

In Chapter 11, Bonnie Cramond and Sarah Sumners address several critical questions that have implications for curriculum development: Why teach creativity? Can creativity be taught? Should we infuse creativity into the current curriculum or design a stand-alone creativity curriculum? Creative dispositions and instructional models focusing on the creative process are also detailed.

Chapter 12 by Brian Housand examines the role of technology in curriculum for the gifted. From seamlessly integrating technology into the curriculum to examining the ways students engage with technology in the classroom, a variety of considerations are discussed. Access to technology, use of technology for creative expression, and responsible use of technology are additional topics explored in this chapter.

Kristen Stephens, David Malone, and Alissa Griffith introduce the reader to service-learning in Chapter 13. The chapter summarizes the research supporting service-learning experiences for students, highlights the role service-learning plays in curriculum development for gifted learners, and shares teachers' experiences with implementing service-learning in schools and classrooms.

In Chapter 14, Jean Peterson provides an overview of affective curriculum that addresses the social and emotional development of gifted students. Strategies for incorporating affective components into existing curriculum as well as developing "stand-alone" affective curriculum are presented.

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The development of culturally responsive and relevant curriculum is examined by Donna Ford and Michelle Trotman Scott in Chapter 15. The revised Bloom-Banks Matrix is shared. Although Bloom's taxonomy addresses the rigor required of gifted students, the Banks Multicultural Curriculum Model ensures relevancy is equally considered in developing curriculum for gifted students.

It is our hope that each chapter in this text provides the reader with the necessary knowledge and tools to create new or adapt existing curriculum for gifted students. The development and refinement of curriculum is an ongoing process that not only demands staying abreast of the most current research to ensure implementation of evidence-based practices, but also requires educators to come together, share expertise, and reflect deeply about what is essential for students to know, understand, and be able to do across grade levels and content areas. Curriculum is our guide, so we must ensure that it is always directing us to our desired destination.



CHAPTER 1

In Context

Gifted Characteristics and the Implications for Curriculum

Angela M. Housand

Introduction

Numerous perspectives within the literature on giftedness and talent development attempt to characterize giftedness. Listings of characteristics often include intellectual attributes, creative characteristics, domain-specific behaviors, affective characteristics, and trait comparisons, to both illustrate similarities between gifted students and eminent producers as well as to highlight differences between gifted students and their nongifted peers (Davis, Rimm, & Siegle, 2011; Reis & Housand, 2007; Renzulli, Siegle, Reis, Gavin, & Sytsma-Reed, 2009; Renzulli et al., 2013; Sternberg & Davidson, 2005). The purposes for listing such attributes vary from simply trying to broadly define manifestations of intelligence to informing procedures for effectively identifying gifted students. Recurrent across both purposes is the suggestion that gifted and talented students are atypical learners, capable of advanced performance, and qualitatively different from their nongifted peers in their cognitive abilities, personal-

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ity traits, past experiences, and/or affective characteristics (Clark, 2002; Renzulli, 1978, 1996; Treffinger, Young, Selby, & Shepardson, 2002).

VanTassel-Baska (2011) contended that three characteristics of gifted and talented students—complexity, precocity, and intensity—are critical for curricular planning and development. Complexity as a characteristic refers to gifted students' abilities to grapple with complex ideas, reason abstractly, engage in higher order thinking, and enjoy challenging activities. This ability to enjoy complexity stems from their precocity or evidence of advanced performance in a domain as well as their emotional responsiveness and capacity for intense focus on topics they find interesting. Although consideration of these characteristics certainly leads to outstanding curriculum for gifted students, it does narrow the focus and limits attention to the influence of environment, thus potentially advancing the belief that giftedness is static or unchanging and that once a student is identified as gifted, he or she will always display these unique capacities.

Increasingly, however, experts suggest that the characteristics of gifted individuals are not static in nature and no one individual possesses or displays all of these characteristics consistently across time or content areas (Renzulli, 1986, 2005; Sternberg, 1997; Treffinger et al., 2002). It has been known for decades that giftedness varies among individuals; across gender, cultures, and socioeconomic status; and across disciplines and time (Bloom, 1985; Frasier & Passow, 1994; Reis, 2005; Treffinger et al., 2002). Further, gifts and talents may be manifest and apparent, emergent and ill-defined, latent and hidden, or camouflaged by a learning disability. To further complicate matters, many conceptions acknowledge that giftedness and gifted behaviors manifest as a result of the dynamic interaction between internal factors, such as motivation, persistence, or interest, and external factors, such as access to resources, enriched learning opportunities, or support (Mönks & Katzko, 2005; Renzulli, 1996, 2002), and research supports that giftedness is developmental and fluid or less fixed than previously believed (Dweck, 2006).

The general agreement within the field of gifted education seems to be that giftedness is a multifaceted construct and no singular definition or clear consensus exists about the exact nature of giftedness. A position statement by the National Association for Gifted Children (2010) advances the idea that gifted individuals are those who demonstrate outstanding levels of aptitude or competence in a given domain. Within education, these exceptionally able learners progress in learning faster than their same age-peers, are found in all segments of society, and require differentiated

educational experiences with opportunities for advanced levels, depth, and pacing of curriculum. Regardless of the complexities, some consideration of these characteristics is fundamental for designing and planning curriculum for gifted and talented learners (VanTassel-Baska, 2011).

Curriculum has to address the variability in the development of gifted behaviors and be prepared to support a broad range of developmental stages and individual characteristics even within the narrower population of students who have been identified as having the potential for advanced performance. Examples of some generally accepted and often used differentiated learning experiences for gifted students include acceleration in domains of talent or by grade-level; grouping practices that are flexible and cluster gifted students together by talent area or for advanced instruction; inquiry-based strategies that rely on seeking answers to open-ended problems or questions; embedding higher order thinking and problem solving into core subject areas; and focusing on curricular content and processes that are based on student interests, have applications outside educational settings, or have personal meaning for students (e.g., relevant to their sense of identity or future goals; Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015; Ackerman, 2014; Colangelo, Assouline, & Gross, 2004; Renzulli & Reis, 2014; Rogers, 2004; VanTassel-Baska & Brown, 2007). Of paramount importance within these differentiated educational experiences are the curricular decisions: the consideration, determination, and description of what students ultimately are *expected to be like* and *be able to do* (Stahl, 1994) or as Tomlinson (1999) would suggest, what students *should know, understand, and be able to do*.

This provides the platform for thinking about curriculum as a means to serve not only the internal characteristics of gifted students, but also develop talent traits that are instrumental for advanced achievement such as intellectual engagement (Goff & Ackerman, 1992), openness to experience (Costa & McCrae, 1992), perseverance and passion for attaining long-term goals (i.e., grit; Duckworth, Peterson, Matthews, & Kelly, 2007), a need for Ascending Intellectual Demand (Tomlinson et al., 2009), and intense focus in areas of personal and “professional” interest (Housand, 2014; Renzulli & Reis, 2014). What then are the attributes of gifted and talented students in our classrooms that can be leveraged to support growth and achievement for these individuals? In other words, which traits of giftedness are most important to consider in decision making about high-quality curriculum, and what constitutes “high-quality curriculum”?