Preface

The constantly changing landscape of Special and Gifted Education makes it challenging for experts and practitioners to stay informed of the field’s most up-to-date research. That is why Information Science Reference is pleased to offer this three-volume reference collection that will empower students, researchers, and academicians with a strong understanding of critical issues within Special and Gifted Education by providing both broad and detailed perspectives on cutting-edge theories and developments. This reference is designed to act as a single reference source on conceptual, methodological, technical, and managerial issues, as well as provide insight into emerging trends and future opportunities within the discipline.

*Special and Gifted Education: Concepts, Methodologies, Tools and Applications* is organized into eight distinct sections that provide comprehensive coverage of important topics. The sections are:

1. Fundamental Concepts and Theories;
2. Development and Design Methodologies;
3. Tools and Technologies;
4. Utilization and Application;
5. Organizational and Social Implications;
6. Managerial Impact;
7. Critical Issues; and

The following paragraphs provide a summary of what to expect from this invaluable reference tool.

Section 1, “Fundamental Concepts and Theories,” serves as a foundation for this extensive reference tool by addressing crucial theories essential to the understanding of Special and Gifted Education. Introducing the book is *Historical Overview of Adult Gifted Education in the United States* by Judith Bazler, Letitia Graybill, and Meta Van Sickle; a great foundation laying the groundwork for the basic concepts and theories that will be discussed throughout the rest of the book. Another chapter of note in Section 1 is titled *Multiplayer Kinect Serious Games: A Review* by Ali Alshammari and David Whittinghill. Section 1 concludes, and leads into the following portion of the book with a nice segue chapter, *Living with ADHD: Timing Perceptions and Their Applicability to the Experience of ADHD* by Osnat O. Fellus and Daniel P. Fellus.

Section 2, “Development and Design Methodologies,” presents in-depth coverage of the conceptual design and architecture of Special and Gifted Education. Opening the section is *Evolution of a Course for Special Education Teachers on Integrating Technology into Math and Science* by Irina Lyublins-
Preface

kaya. Through case studies, this section lays excellent groundwork for later sections that will get into present and future applications for Special and Gifted Education, including, of note: Realabilities: The Development of a Research-Based Children’s Television Program to Address Disability Awareness and a Stop-Bullying Platform in Schools by Nava R. Silton, Senada Aruцевић, Rebecca Ruchlin, and Vanessa Norkus; and Imagining Social Equity by Helen J. Farrell. The section concludes with an excellent work by Debra R. Sprague and Beverly Shaklee, titled Differentiating through Technology for Gifted Students.

Section 3, “Tools and Technologies,” presents extensive coverage of the various tools and technologies used in the implementation of Special and Gifted Education. Section 3 begins where Section 2 left off, though this section describes more concrete tools at place in the modeling, planning, and applications of Special and Gifted Education. The first chapter, Using Mobile Technology for Student Teaching Observations of Special Education Candidates by Josh Harrower and Cathi Draper Rodriguez, lays a framework for the types of tools that can be found in this section. Section 3 is full of excellent chapters like this one, including such titles as Using Technology to Support Social Competence by Brenda Smith Myles, Jan Rogers, Amy Bixler Coffin, Wendy Szakacs, and Theresa Earles-Vollrath; and Robots and Autism Spectrum Disorder by Amie Senland. The section concludes with Video Use in Teacher Education by Ashley hodge and David D. Carbonara. Where Section 3 described specific tools and technologies at the disposal of practitioners, Section 4 describes the use and applications of the tools and frameworks discussed in previous sections.

Section 4, “Utilization and Application,” describes how the broad range of Special and Gifted Education efforts has been utilized and offers insight on and important lessons for their applications and impact. The first chapter in the section is titled Incorporating Mobile Technology into Evidence-Based Practices for Students with Autism written by Iva Strnadová, Therese M. Cumming and Cathi Draper Rodriguez. This section includes the widest range of topics because it describes case studies, research, methodologies, frameworks, architectures, theory, analysis, and guides for implementation. The breadth of topics covered in the chapter is also reflected in the diversity of its authors, from countries all over the globe. Some chapters to note include: Gifted Education and One Case Solution through E-Learning in Japan by Masahiro Nagai and Noriyuki Matsumani; Mobile Games Individualise and Motivate Rehabilitation in Different User Groups by Antti Koivistro, Sari Merilampi, and Andrew Sirkaa; and Implementing a Problem-Based Technology Learning Environment to Foster Cultural Literacy and Responsiveness Instructional Skills by Blanche Jackson Glimps and Theron Ford to name a few. The section concludes with Using Technology to Teach Gifted Students in a Heterogeneous Classroom by Edward L. Shaw Jr. and Rebecca M. Giles, a great transition chapter into the next section.

Section 5, “Organizational and Social Implications,” includes chapters discussing the organizational and social impact of Special and Gifted Education. The section opens with Pathway to Independence by Kavita Krishnaswamy and Tim Oates. Where Section 4 focused on the broad, many applications of Special and Gifted Education technology, this section focuses exclusively on how these technologies affect human lives, either through the way they interact with each other, or through how they affect behavioral/workplace situations. Other interesting chapters of note include Parents as Advocates for Children with IBD at School by Maria Gordon; and The Road to Diagnosis and Post-School Life by Barbara Rissman. The section concludes with A Second Chance: Delinquency Prevention among Special Education Students by Christine S. Barrow.

Section 6, “Managerial Impact,” presents focused coverage of Special and Gifted Education in a managerial perspective. This section serves as a vital resource for developers who want to utilize the latest research to bolster the capabilities and functionalities of their processes. The section begins with
Public Administrators, School Safety, and Forms of Surveillance by Kirsten Loutzenhisler. The chapters in this section offer unmistakable value to managers looking to implement new strategies that work at larger bureaucratic levels. The section concludes with Creating Protective Barriers for Students with Disabilities in E-Learning Environments by Bob Barrett.

Section 7, “Critical Issues,” presents coverage of academic and research perspectives on Special and Gifted Education tools and applications. The section begins with Improving Socialization and Emotion Recognition for Children with Autism Using a Smartphone App by Cassidy Lamm, LaurenLambert, Joshua Wolfe, Jeff Gray, Angela Barber, and Gary Edwards. Chapters in this section will look into theoretical approaches and offer alternatives to crucial questions on the subject of Special and Gifted Education. The section concludes with Evaluating a Technique for Improving Letter Memory in At-Risk Kindergarten Students by Carol Stockdale.

Section 8, “Emerging Trends,” highlights areas for future research within the field of Special and Gifted Education, opening with Recent Advances in Augmentative and Alternative Communication: The Advantages and Challenges of Technology Applications for Communicative Purposes by Toby B. Mehl-Schneider. This section contains chapters that look at what might happen in the coming years that can extend the already staggering amount of applications for Special and Gifted Education. The final chapter of the book looks at an emerging field within Special and Gifted Education, in the excellent contribution, Mobile Technology and Differentiated Learning: Meeting the Needs of Students with Significant Disabilities by Ann C. Orr and John F. Conley.

Although the primary organization of the contents in this multi-volume work is based on its eight sections, offering a progression of coverage of the important concepts, methodologies, technologies, applications, social issues, and emerging trends, the reader can also identify specific contents by utilizing the extensive indexing system listed at the end of each volume. As a comprehensive collection of research on the latest findings related to using technology to providing various services, Special and Gifted Education: Concepts, Methodologies, Tools and Applications, provides researchers, administrators and all audiences with a complete understanding of the development of applications and concepts in Special and Gifted Education. Given the vast number of issues concerning usage, failure, success, policies, strategies, and applications of Special and Gifted Education in countries around the world, Special and Gifted Education: Concepts, Methodologies, Tools and Applications addresses the demand for a resource that encompasses the most pertinent research in technologies being employed to globally bolster the knowledge and applications of Special and Gifted Education.