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Monita Leavitt

Your Passport to Gifted Education

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In 2011, Associate Professor Dr. Daiva Grakauskaitė-Karkockienė, a faculty member in the Department of Developmental and Educational Psychology at the Lithuanian University of Educational Science and Director of the Educational Center for the Gifted (GABIŲJŲ UGDYMO CENTRAS), arranged for me to provide professional development for 15 teachers who would become the trainers of teachers working with gifted children throughout Lithuania. Afterwards, Daiva asked me to write this book to help teachers understand the uniqueness of being gifted and to provide strategies for intervening at an appropriate high level of learning to address their special needs. It is both an honor and a pleasure to dedicate Your Passport to Gifted Education to Daiva. For your creativity and commitment to inspire teachers globally and to build awareness for an exceptional population of children in Lithuania, Daiva, this book is for you.

Preface



Photographer Fran Hines

Over the past two decades, economic crises have impacted the field of education in countries such as the United States and Great Britain, which resulted in district-wide budget cuts, a lack of federal funding and/or a lack of legislative support. Consequently, there has been a loss of specialized teachers and programs for ‘gifted,’ ‘highly able’ or ‘high potential’ children. In 1994, a worldwide conference in Salamanca, Spain favored a policy shift for inclusive education to develop special needs education as an integral part of all educational programs in Europe. The UNESCO *Salamanca Agreement*, representing 92 governments and 25 international organizations, committed to following the global movement of *Education for All* by meeting the learning needs of all children. In 2001, the United States followed suit with its *No Child Left Behind Act (NCLB)* and focused on students who did not meet proficiency in national testing. In 2003, *Education for All* revised its vision and policy and replaced the language and provisions of the *Salamanca Agreement* to require an appropriate education for all children, including the gifted. It was not until twelve years later in December 2015 that the

United States also called for change in state advocacy and resource allocation that included gifted children with an updated passage of NCLB known as the *Every Student Succeeds Act* (ESSA).

In 2002, after 25 years of teaching a program for gifted and talented children in the United States, I became one of the unfortunate teachers whose job was cut, leaving gifted children in my school district without an appropriate education to address their exceptional learning needs. Therefore, as a gifted education specialist, I refocused my career to become a consultant in the field. I worked both nationally and internationally with universities, school systems and associations for the gifted to bring special attention to the important role of teachers. I believed that teachers, as facilitators of differentiation and higher-order thinking skills, could create and provide an appropriate learning environment for all students in the classroom, including a challenging education for gifted children.

Today, as states and countries continue to undergo educational reform, we recognize the importance of providing opportunities that motivate and engage all learners in the classroom, especially those individuals who were left aside as to make it on their own—the gifted. Many states and countries differ in the pace of educational development and, also, in the policies and actual practices of identification and provision for gifted children. However, because hundreds of definitions exist for the term ‘gifted,’ and there are many different characteristics in scholarship and leadership that are valued by various cultures, the concept of giftedness must be defined within the context of a particular culture.

Despite any differences in cultures, while networking around the world with adults who work with gifted children, I realize we all face similar challenges. Ironically, because new teachers continue to enter the educational profession, the same questions still arise for how to best identify a child as ‘gifted,’ and, once identified, what to do next to encourage a gifted child to reach their full potential.

Arguably, labeling a child as ‘gifted,’ or a synonym thereof, is not enough. Teachers need to assess and address the individual needs of a child to help them on their journey of lifelong learning. Unfortunately, teachers face an even greater challenge in understanding the nature of giftedness because ‘gifted’ is not only an ambiguous term, but the identification of a gifted child is now complicated due to the integration of immigrants in classrooms throughout the world. Therefore, you may need to ‘look through a different lens’ and gain a new perspective to effectively intervene with quality educational practices for high ability children.

I wrote *Your Passport to Gifted Education* as a textbook intended primarily for an audience of North American teachers who are new to the profession and have little, if any, knowledge about gifted children. However, by understanding the dynamics of giftedness and providing a variety of strategies needed for intervention, I believe my book can serve an even greater audience to include teachers in other countries. My book is written within an international context to underline the importance of preparing gifted children as resilient individuals who will not only survive, but, will also thrive to successfully compete in the workforce of a global economy.

According to the past several years of the international *Pisa Educational Rankings* and the *Worldwide Provision to Develop Gifts and Talents* survey (2010), you may be surprised to learn students from Asian countries as well as from Finland outperform the United States and many European countries. Because of a decline in brain power, it is critical to examine the impact of your own teaching practices and become informed of strategies to engage and motivate students to develop a ‘growth mindset,’ i.e., ‘can do attitude,’ to value effort in their work, and, thus, to take academic risks that can extend their learning.

Your Passport to Gifted Education reveals both theoretical and practical knowledge gained from three decades of my experience as an educator to provide knowledge in the field of gifted education for pre-service and classroom teachers that can be shared with parents, colleagues, administrators and policy-makers. In addition to facilitating a program for gifted children, I have had experience as a former special education, elementary and middle school classroom teacher. Based upon my teaching experience, I agree with Del Siegle that every child has the right to learn something new every day. Thus, I wrote this book to provide knowledge and build awareness that informs and empowers teachers to become advocates by intervening for a population of exceptional learners. By equipping yourself with timely international research and ‘tried and true’ intervention strategies for both teaching and parenting, your appreciation for the uniqueness of every gifted child will develop. Although the core of my book centers on teacher intervention for gifted children, these teaching practices can be used with all students. Gifted children aren’t better than their peers. They are simply different, and, therefore, experience different needs and require different approaches to learning. As teachers, you need to intervene by asking, ‘Who is this individual? What do they need to be successful? How can I help?’

Your Passport to Gifted Education is written as a three part analogy of taking a flight to the world of gifted education: (1) Embarking on a Journey; (2) Preparing for Departure and (3) Planning for Arrival. Chapter 1 begins with an international historical overview of what is meant by the term ‘gifted.’ A brief description of the law and legislation in Europe and the United States are reviewed to evidence the myth that gifted children can make it on their own. For this book, I have accepted the definition of ‘gifted’ that is based upon the 1971 *Marland Report*, a springboard used for not only the 50 states, but for various countries as well. Chapter 1 will also familiarize you with the history of gifted education in the United States.

Just as ‘One size does not fit all,’ there is not one route for teachers to navigate in the field of gifted education. Chapter 2 presents a choice of four widely-acclaimed international identification models or frameworks for school districts to consider in the selection process of identifying their high performance learners. Each model offers a different approach, which will impact how to provide for the targeted talent pool. Two of the identification models originated in the United States. The first model offers a triangulated enrichment approach that is markedly different from comparative models of its time because it did not base giftedness solely on IQ scores. The second model provides a psycho-social approach reflecting an individual’s current and future potential. The third model, emanating from Canada,

proposes a natural relationship for ‘giftedness’ that evolves to ‘talent’ through a variety of catalysts, i.e., interpersonal and environmental factors. The fourth and final model presents a framework from Great Britain that offers a systematic inclusive approach for identifying and nurturing high performance learning at schools to provide outstanding educational experiences for highly able and all children.

Chapters 3–10 follow a particular structure. Each chapter is introduced with a quote. A metaphor is then used to connect your journey with the world of gifted education. Next, background information is presented to support the content with international research. A case study, written in the first person, reveals a gifted child’s perception of a classroom experience relating to the main idea of the chapter. The gifted children and situations in the case studies were inspired by real life children I have known. Last of all, strategies are provided for both teachers and parents that offer insight and provide help for intervention.

Your Passport to Gifted Education concludes by awarding you with a ‘Landing Card’ for journeying to the world of gifted education. The Landing Card serves as a bookmarker depicting the key concepts gleaned from your journey to assist with writing lesson plans and curriculum, conferencing with parents and/or working with gifted children. It is followed by a ‘Resource Directory’ that lists international organizations as well as an Appendix called ‘Index of Intervention Strategies’ to support and extend your lifelong journey.

I’d like to recognize and give a special thank you to my daughter, Tamara Leavitt Jenkin, for her help in providing additional insights into the needs of classroom teachers, as well as her work with editing this book. Many thanks, too, to my brother-in-law and talented photographer, Fran Hines, for taking a photo of the author for this book.

Thank you to Springer Publishing Company, especially Assistant Editor of Education, Natalie Rieborn, and to my peer reviewers including Dr. Eleonor van Gerven, author and managing director at *Slim!* Educatief, a private teacher education institute for post graduate teacher education in the Netherlands. I am grateful for their feedback, encouragement and help in finding the right ‘home’ for this book.

Several leading organizations provided me with opportunities for delivering staff development internationally. I would like to acknowledge the American Professional Partnership of Lithuanian Education (A.P.P.L.E.), the European Council for High Ability (ECHA), the International Gateway for Gifted Youth (IGGY, Great Britain), the Lithuanian University of Educational Science (Lithuania), Nord Anglia (NAE Hong Kong Limited), the Summer Institute for the Gifted (SIG, USA), the University of Winnipeg’s Summer Institute for History Teachers (Canada), and the World Council for Gifted and Talented Children (WCGTC). To this end, I’d like to recognize Roya Klingner, Director and Founder of the Global Center for Gifted and Talented Children (Bavaria, Germany), for including me in various professional opportunities around the world. Through networking with teachers, parents and gifted children in Asia, Europe, North America and the Kingdom of Saudi Arabia (KSA), I realize that, as adults who

work with gifted children, we do not stand alone. We share similar aspirations, challenges and concerns for our children. By appreciating the uniqueness of each child, including those who are gifted, we can use our knowledge to intervene and advocate to make a difference in their lives, both now and in the future.

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Part I

Embarking on a Journey



Chapter 1

Envisioning the Journey: Conceptualizing a History of Giftedness

The real voyage of discovery consists not in seeking new landscapes, but in having new eyes.
—Marcel Proust (Writer). [Online], <http://www.brainyquote.com/quotes/quotes/m/marcelprou107111.html>, as accessed on 9/6/16.

Abstract Your Passport to Gifted Education serves as a ‘passport’ for parents, teachers, and other stakeholders to embark on a journey into unknown territory that reaches beyond the walls of a regular classroom. To identify and provide an appropriate education for exceptional learners, a school district must first confront the problematic term of ‘gifted’ and decide upon a definition. This chapter presents a brief international history to introduce giftedness as culture specific, followed by a brief history of giftedness in the United States. Although the *No Child Left Behind* Act, like *Europe’s Education for All* initiative, became a force to move the goal posts to support equality of education for all students, it did not provide for the brightest ones. New advocacy and resource allocation to include gifted children were required. Based upon a 2010 international survey research report and Pisa results, this chapter argues the need for staff development to prepare our brightest children for their future in a competitive global society.

Keywords Historical background • Global perspective • International comparisons • Legislation • Marland Report • Mandates • Passport • Problematic term • Psychological constraints • Selecting definition

1.1 Introduction

The first step of embarking on a voyage is to decide where you want to go. There are numerous places to travel and many routes to get there. It is up to you to conceive a trip that meets your aspirations and needs. A good way to start is to research the possibilities of what you would like to experience and, then, follow up by creating a travel plan that works for you.

If a destination is beyond the boundaries of your country, you will need a passport. A passport is an internationally recognized travel document to verify the identity and nationality of an individual. Issued by a country's government, a passport serves as a legal authorization for you to travel in other countries. This book will serve as your 'passport' and transport you to a new area of discovery that reaches beyond the walls of a regular school classroom. So, sit back and enjoy your journey to the world of gifted education!

1.2 Preparations

Planning a trip can be overwhelming when you are venturing into the unknown. Just like deciding on the essentials needed for preparing for your trip, a school system must become familiar with various prerequisites that are fundamental to beginning a journey to the world of the gifted. To envision how to identify and provide for gifted children, a school system must first embrace a definition of giftedness. Similar to the vast array of destinations available to you when contemplating a trip, there are multiple interpretations and hundreds of definitions for the term 'gifted.' Interestingly, there is not just one definition that refers to a precocious child's potential for high ability. The word 'gifted' can mean different things to different people of different cultures. Selecting a definition and identification model will determine the kind of high potential and high ability a school district recognizes as 'giftedness.'

There are bound to be many interpretations that add to the confusion of what it means to be gifted. Because the field of gifted education lacks a flawless definition, understanding which individual is 'gifted' can be quite elusive. Therefore, it is important that each culture determines an acceptable identification for their purpose, based upon their experiences, values and beliefs of giftedness.

It is a myth to think that gifted children are all the same. Gifted children are not a homogeneous group. Their interests, abilities, and potential can differ greatly. The strengths and weaknesses of a gifted child will vary according to the individual. It is also not true that every gifted child is 'globally gifted,' i.e., able to demonstrate a potential for high ability in all areas. Just as society understands each child is different, teachers and parents need to build awareness that each gifted child is also unique.

As confusing as it can be when considering what to pack for your trip, deciding upon a definition and model of 'giftedness' can be equally challenging. Undoubtedly, teachers can identify bright children who are globally gifted and exhibit outstanding high academic performance in specific areas within a classroom setting. But, what about those gifted children who do not demonstrate their potential or are gifted in only one domain or underachieve? Can it be argued that informal teacher recognition always provides an effective and sound criteria for determining different kinds of giftedness?

Sadly, there is still no consistent or universal legislation for the identification or provision for gifted children, although some countries are working toward that end. An international survey revealed that the *Worldwide Provision to Develop Gifts and Talents* in the United Kingdom, Slovenia, the Netherlands, Poland, Finland, Germany, and Austria have many options for provision in place for gifted and creative students. However, other countries that include Denmark, Italy, and Spain do not [1].

Upon further examination, the worldwide survey identified underlying values of provision for gifted and talented students and disclosed the category of ‘Teacher Judgement’ ranked first, and ‘Marks and Grades’ ranked second. Because this particular sample most frequently identified high measurable achievement in students rather than high potential, it was not surprising that ‘Staff Development’ was recommended as being critical to the development of gifted education.

In 2012, among a half million 15-year-old students who took the Pisa test, i.e., the Organization for Economic Co-operation and Development (OECD) Program for International Student Assessment, students from Asian countries, e.g., China, Singapore, Japan, and South Korea, ranked as the top 5 out of 40 performers in the area of reading and as the top 7 out of 40 performers in mathematics [2].

It can be argued that ranked test scores is but one identifier of high intelligence. But, clearly, educational changes are taking place globally. Students from countries who are undergoing educational reform demonstrate considerable gains and improved scores as compared to their performance in past years, e.g., Poland and Greece. On the other hand, countries that experienced a loss of federal financing and support, such as the United States and England, find themselves on a downward slide. In addition, the gender gap continues to widen between the sexes. Boys still outperform girls in math, and girls still outperform boys in reading, due to expectations and aspirations that present a barrier for success [2].

How meaningful is it to make international comparisons between our gifted, i.e., ‘highly able,’ children? Because our students will be competing for jobs globally in the future, it is relevant to understand what they know and how they can apply what they know. Asia has undergone significant changes in the development of its gifted education system, which is paying off due to a greater emphasis placed upon effort, rather than ability. Since the past decade, new programs for gifted and talented children are appearing in East Asia. When taking a closer look at Pisa results for Japan, several factors were cited as having influenced their escalated scores: the development of integrated problem solving in the curriculum, high intrinsic student interest and motivation in a subject, orderly classrooms, a sense of belonging and self-efficacy [2].

Today, teachers wrestle with the challenge to meet the academic, social, and emotional needs for a wide spectrum of children in their classrooms, whose abilities range from traditional special educational (SPED) to those of high ability. Because of time constraints and curriculum demands, adequate planning and attention are

not always given to high ability children in the mainstream classroom. It can be inferred that this is due partially to a lack of funding as well as a lack of specialty training to recognize and provide for individual gifted children. It is also resultant of the misconception that gifted children can do it on their own just fine without any intervention from adults [3].

Similar to special needs students, gifted students also fall into a category of exceptional learners [4]. Gifted children know they are different and often feel alone and left out of the mainstream. Therefore, it is important for teachers and parents to get onboard as advocates to intervene on their behalf. By recognizing different ways of how gifted children learn and behave, teachers and parents can better understand how to successfully provide an appropriate education that presents optimal learning opportunities both in and outside of school.

1.3 A Changing World

Schools are changing in today's world and the roles of teachers and parents are changing, too. Driven by social media and learning networks, education is moving outside the classroom walls and the roles of teachers and parents are moving with it. School districts no longer shoulder the responsibility as primary providers to create the sole learning environment for children. Therefore, teachers need to reach out and collaborate with parents as partners in the education of gifted children. They need to create and provide the support required in educating gifted children at an appropriate level that meets their exceptional needs.

Together, teachers and parents play a critical role in 'lighting sparks' that provide opportunities designed to motivate gifted children to learn. Teachers and parents contribute to nurturing a gifted child's self-esteem. Both can help gifted children find like-minded friends to accept and feel good about their high ability and asynchronous learning style. It should be noted, however, that although teachers and parents are not expected to have all of the answers, they are expected to nurture gifted children by equipping themselves with knowledge and understanding about the nature of giftedness.

Gifted children need to be prepared to face the future with twenty-first century based on three pedagogical principles—personalization, participation, and productivity [5]. Like all children who are exposed to a vast amount of information on the Internet, gifted children must learn how to focus, locate, and assess the credibility of information in producing many answers, not just seek the 'right' one. Children need to acquire skills of inquiry, effective communication, problem-solving, critical and creative thinking to advance the quality of lifelong learning and to fulfill the promise of becoming active learners and producers of knowledge in a real world context.

1.4 Historic Perspective

To gain a historical perspective of what it means to be a gifted individual, let us ‘travel’ back to ancient times and learn how various cultures viewed giftedness. The skills of a hunter, warrior or healer were important for survival and progress of early civilizations. The early Greeks honored the orator and artist, whereas the Romans valued the most talented soldier and leader. The ancient Chinese valued literacy. Among the first to record attempts to differentiate individuals with extraordinary skills and abilities during the second century BCE, they recognized early verbal ability as a sign of leadership. They required proficiency exams for potential candidates seeking governmental offices. Intending to promote literacy, ethics and scholarship, the exams included a variety of areas, including poetry, music, calligraphy, and math. Horsemanship was also highly valued [6]. From this brief look at what societies valued highly, giftedness appears inherently culture specific and a global definition is nonexistent.

1.5 Gifted Education

Broadly defined, the education of gifted children dates back thousands of years. During the time of Plato (427 c–347 BCE), specialized training was advocated for intellectually gifted and talented individuals. During the Tang Dynasty in China (580–618 BCE), child prodigies were summoned to the imperial court to receive a special education. And, throughout the Renaissance Period, both the government and private patronage championed creativity and talent in individuals by providing them with support [7].

Knowing giftedness is culture specific, it is reasonable to assume that a definition and identification model needs to be chosen within a context that is most appropriate to a country’s particular culture [8]. Because of these fundamental cultural differences, whatever identification and provision practices work for one country may not work for another. Thus, an individual who is considered to be an exceptional learner in one culture may not be recognized or valued as highly in another.

Selecting a definition of giftedness depends on what is being looked for in the first place. The identification can focus on academic testing, creative innovation, placement in special summer program or competitions based on talents and ability in one’s country [9]. Still widely used internationally, Olympiad competitions continue to be used as a successful gifted identification tool by some of the former Soviet Union countries, including the Baltic country of Estonia. In addition to recognizing accelerated learning, students from many countries, including the United States, participate in national and international Olympiads for enrichment.

1.6 Helicopter View

As well as the historical perspective, let us further explore by looking at a ‘helicopter view’ or the big picture of how a gifted individual is perceived in society. Gaining a wider perspective can help teachers and parents to recognize and understand stereotypes and misconceptions that impact social influences when labeling exceptional learners.

For over a hundred years in Western cultures, gifted children have been given labels that connote ‘having great natural ability.’ However, labeling sometimes signifies negativity. In English, a gifted child was often called a ‘genius,’ a term that inferred an ‘unjustified and unearned privilege’ [10]. In German, highly able children could be called *begabte*, meaning ‘gifted’ or *hochbegabung* (‘giftedness’) to suggest ‘elitism.’ In French, the word for gifted is *doué*, and *surdoué* is used for ‘highly gifted,’ both of which induce an emotional, value-laden reaction of negativity [11]. Interestingly, in Lithuanian, the term for a gifted child is *gabus* or *gabiu vaiku*, neither of which reflects any negative connotation.

1.7 First IQ Test

There have always been children who do not fit in with their peer group. In 1916, American psychologist, Lewis Terman published a revision of what is now known as the *Stanford–Binet Scale*, the first IQ test. Although Alfred Binet originally designed the test as a measurement of abilities for students who were experiencing difficulty in school, it evolved to measure the opposite end of the spectrum and was used to screen ‘intelligent’ candidates for army officer recruitment during World War I. Terman’s intelligence scale led to the further development of creativity tests and became a springboard for numerous studies of the relationship between intelligence and creativity [12, 13]. Today, many researchers and educators include creativity in their definition of giftedness (see Fig. 2.1, Chap. 2: 21).

1.8 Home and School Environment

Leta Hollingworth, a professional colleague of Terman, was the foremother in the United States to study gifted education and the psychology of giftedness. Her work focused on the profoundly gifted who demonstrated high performance on tests. Although recognizing the contemporary belief that heredity played a vital role in intelligence, she also credited both the home and school environments. Hollingworth worked to dispel the pervasive belief that ‘bright children can take care of themselves’ and emphasized the importance of early identification, daily

contact, and grouping gifted children with other gifted children. She conducted an 18-year-long research study in which 50 children in New York City scored 155 or above on the Stanford–Binet test along with a study of smaller groups of children who scored 180 or above. It is interesting to note that Hollingworth ran a school in New York City in the 1920s for bright students that was child-centered, as opposed to a school in which teachers provided students with more advanced curriculum [14, 15].

1.9 Soviet Pedagogy

During this same time period in Russia, quite a different attitude prevailed for educating bright children. Under Marxism and Leninism, Russia favored an educational system that neglected the natural abilities of students and ignored cultural influences of the family. Soviet pedagogy provided that high ability resulted from the quality of education delivered by Russian teachers and promoted by a centralized government. Similar to the German and French terms for gifted, Russian teachers thought ‘gifted’ was an arrogant term and preferred to use the word ‘smart’ to mean ‘children who want to study and who are able to study’ [16]. Education for gifted children in the former Soviet Union was organized primarily to promote the good of the whole society, then to promote progress and, finally, to promote the development of the individual [17, 18]. Gifted children competed in a network of Olympiad competitions to demonstrate their high achievement as well as to capitalize on the intellectual resources they provided for Soviet society.

1.10 Psychological Constraints

Today, the term ‘gifted’ implies the potential for high academic achievement or accomplishment along with psychological constructs impacted by the environment. Unfortunately, the word still presents a problem due to negative implications. Subsequently, labeling an individual as ‘gifted’ can impact a child’s self-esteem. Because they are different from their peers, and often demonstrate an asynchronous learning style, many high ability children are perceived and treated as ‘outliers.’ Often, gifted children are not appreciated for their advanced intelligence and sophisticated and/or technical vocabulary. It is not uncommon for them to become targets for ridicule by bullies who lack understanding.

No child wants to stand apart from their peers and be perceived as different in a negative way; everyone wants to fit into society. All children want to be accepted and have friends. However, because gifted children know and feel they are different than their peers, they may hide their advanced intelligence in school and ‘clown around’ or ‘dumb down’ in hopes of finding acceptance.

1.11 The Cold War

On October 4, 1957, the Soviet Union successfully launched Sputnik I, the world's first artificial satellite. The launch ushered in the 'Race to Space' between Russia and the United States, who immediately turned its attention to the education of bright students [19]. In 1958, the U.S. Congress passed the National Defense Education Act (NDEA) to boost science, math, and technology in public education. Educators were pressed to identify and serve gifted students in schools. Students who were selected for gifted services were required to score at least 130 on intelligence tests. Unfortunately, this cut-off score excluded those gifted and talented students who did not test well. Therefore, not everyone who was gifted was identified [20].

1.12 Bird's Eye View

In the late 1970s, western educators finally departed from the notion that giftedness could be measured by a single IQ score or achievement test score. About this time, identification models began to embrace multiple characteristics of giftedness, including high academic ability in various areas. These models examined how individuals exhibited their exceptionalities in different ways. In every culture and economic background, there are developmentally advanced children who embody high performance capability and exhibit greater abstract reasoning and creativity than their peers. Very few researchers today accept the IQ or achievement test score as the only valid measure of a gifted child's potential ability for producing notable future achievements [21].

Sir James Paul McCartney of the Beatles is a good example of a child's exceptional ability being overlooked. Although Paul McCartney loved music, he found music lessons at the Liverpool Institute to be boring. During his formal education, no one recognized his musical talent. When applying to join the choir of the Liverpool Cathedral, Paul was turned down because it was thought he could not sing [22].

In hindsight, it is conceivable to think that other gifted children besides Paul McCartney have also 'fallen through the cracks' and missed being identified by teachers and parents. It can be inferred that more children can be encouraged to reach their full potential if teachers look for ways in which they are smart.

Some students stand out in a class because they demonstrate ways in which they are smart. These children are easily recognized as developmentally advanced learners by both teachers and parents. But, some gifted children may not be so easily recognized. Subsequently, they can miss out on being identified as gifted learners. Therefore, there is a great need for the educational community to develop

the potential in as many students as possible by offering opportunities that rigorously challenge and motivate all children to learn.

The philosophy of offering opportunities that challenge and motivate all children to learn was endorsed in The English Model. The English Model was built upon traditional models of gifted education that formed the basis of the comprehensive national program in England. It positioned schools to become more inclusive in identifying high ability and high potential in all children and to integrate them with peers as much as possible [23]. Additional information on the evolution of The English Model to what is now known as the *High Performance Learning Framework* can be found in Chap. 2: 24.

1.13 Topic for Debate

Today, the identification of a gifted individual is still a topic for debate in international circles. This is largely due to different cultural interpretations and various definitions and models of giftedness. For example, the National Association for Gifted Children (NAGC) reports the gifted population as 6–10% of the student population in the United States [24]. Because cultural beliefs defining giftedness influence the acceptance of an individual and their abilities, teachers, and parents may not yet fully understand the true nature of giftedness. Thus, the more informed teachers and parents are, the better prepared our societies will be to recognize and support exceptional abilities and talents in all students.

1.14 ‘Gifted’ Versus ‘Talented’

At this point, it is important to distinguish between the terms ‘gifted’ and ‘talented.’ Some researchers use the terms interchangeably, while others differentiate between the two. According to Professor François Gagné, an internationally known researcher from Canada, ‘gifted’ refers to an individual in the top 10% of their age peers who possesses and uses an untrained and spontaneously expressed superior natural abilities (called aptitudes or gifts) in at least one ability domain: intellectual, creative, social and/or physical. ‘Talent,’ on the other hand, refers to an individual in the top 10% who demonstrate superior mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity. The two are not necessarily exclusive of one another. Thus, it is possible that a child can be both gifted and talented. Gagné cautions that although some gifted children are talented, not all talented children are gifted [25]. For the purpose of this book, Gagné’s distinction will be accepted.

1.15 Operate Independently

Anyone who flies can tell you which airlines provide good meals, comfort, and service. Some airlines provide a selection of meals and accommodate a passenger's special dietary requirements, while others offer a beverage and food at an additional cost to the passenger. Each airline operates independently and, therefore, can offer different choices.

Like the airlines, countries also operate independently and offer different policies to identify and educate gifted children. Interestingly, within the United States, states lack federal legislation and funding to support gifted education. Each state department of education operates independently. Because educational policies for school districts can vary within a state, it is possible for a child to qualify or be labeled as 'gifted' in one academic setting, but not in another location. We recognize this discrepancy between states as well as countries due to varying criteria for what it means to be identified as 'gifted.'

In 1971, the Marland Report to the United States Congress (*National Excellence: A Case for Developing America's Talent*) offered a definition of giftedness which proved to be a great catalyst for developing policies, not only in the United States, but in many countries throughout the world. Like a control tower, it offered direction to the states. The states recognized its appropriateness and based their definition of giftedness upon it. Currently, states refer to the National Association for Gifted Children (NAGC) and accept the following definition based upon the Marland Report:

[Those who] demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, and sports).

The development of ability or talent is a lifelong process. It can be evident in young students as exceptional performance on tests and/or other measures of ability or as a rapid rate of learning, compared to other students of the same age, or in actual achievement in a domain. As individuals mature through childhood to adolescence, however, achievement and high levels of motivation in the domain become the primary characteristics of their high ability. Various factors can either enhance or inhibit the development and expression of abilities [26].

More than a decade later, in 1983, *A Nation at Risk* was published as an 18-month-long study of secondary students in the United States who were no longer receiving a superior education. It revealed that students from the U.S. were not able to compete with students from other developed countries in many academic areas. The study urged the U.S. government to increase gifted education programs of enrichment or acceleration as well as to create standards for the identification of gifted children [27].

In 1988, the next important Act passed to support talent in North American schools was the *Jacob Javits Gifted and Talented Students Education Act*, a part of

the *Elementary and Secondary Education Act* (ESEA). The Javits Act required Congress to pass funding each year to award grants for states and school districts that focused on identifying and serving underrepresented populations of gifted students [28]. Funding in gifted education is a critical necessity. Not only important for support and sustainment of programs and staff, but funding is critical for the validity and recognition of quality education a society wants to provide for its high ability children.

1.16 Guidance

The purpose of an airport control tower is to provide guidance and direction for planes to take-off and to land. In the instruction of gifted children, guidance is found in the overarching principles of laws that support equality of education.

Today, in countries such as the United States, many teachers are caught in a ‘teach-to-the-test’ environment, in which closing the achievement gap drives education. In 2001, a United States Act of Congress reauthorized the Elementary and Secondary Education Act, which included Title I, as the government’s flagship aid program for disadvantaged students. The *No Child Left Behind Act* (2001) required school teachers in the United States to become even more accountable for the education of poor and minority students. ‘Minority’ refers to any under-represented group in a wider population that includes gender, racial and cultural factors.

Although an admirable goal, the *No Child Left Behind Act* encouraged an obsessive focus on national test results. Teachers intervened diligently for students who scored below the proficiency level on national tests and were mindful of those who struggled, resultant from unequal early access to learning. However, little thought was given to the test scores of high ability children who scored above the proficiency level, yet, did not show growth. The *No Child Left Behind* initiative, like Europe’s *Education for All* (2003), became a force to move the goal posts to support equality of education for all students. Consequently, the *No Child Left Behind* was reauthorized because of its short comings. In December 2015, the National Association of Gifted Children (NAGC) announced the passage of the updated *Every Student Succeeds Act* (ESSA) for new state advocacy and resource allocation in which gifted children were now included [29].

1.17 Education for All

Education for All was of particular importance to the field of gifted education in Europe because, while it provided for all students, it laid out implications for teaching the gifted. Specifically, Goal 1.1 states that ‘the education system guaranteed to all a basic education that was high quality and appropriate for the needs, interests, and capabilities of each learner’ [30, 31]. Goal 3.14 continues with

provisions for the gifted, namely, to create a system of pedagogic-psychological services that extend the accessibility of basic and secondary education to children with various exceptional needs. Goal 3.15 provides for the gifted even more explicitly: ‘to draft and implement programs providing pedagogic advice and consultations to parents raising special needs children ... especially [the] gifted’ [30]. These goals are consistent with the general principle, and specific concern, that gifted and talented youth are a country’s major natural resources [32]. Because gifted students are now recognized and addressed as an exceptional population, there is a growing awareness of their special needs among teachers and parents.

1.18 International Research Report

Some countries, as well as individual states, continue to identify and service gifted populations according to their particular needs and means. In 2010, the International Research Report revealed that excellence comes from a variety of special provisions made for gifted students [1]:

- Early entrance
- Skipping classes
- Shared classes with higher grades
- Group acceleration
- Enrichment workshop
- Cooperation with companies or nonprofit organizations
- Extra-curricular activity
- Individual mentor
- Independent Study
- School intern competition
- Psychological counseling
- Summer camp
- Festival
- Exhibitions
- School extension competition
- Performance/show (artistic, talent)
- Other.

The report highlighted a few countries that provided various educational options for gifted and talented students [1]: China has successfully offered nonselective enrichment in its Children’s Palaces to provide for gifted students. New Zealand and Israel federally funded and provided self-selection programs for their gifted population. Germany hosted federally and privately funded competitions with prizes. And, Brazil focused on supporting the seriously deprived, yet potentially talented, children.

The United States offered Talent Searches that provide a selection of children with special summer-school courses or programs based upon national scores and high achievement, all which are family funded [33]. Many summer and online programs are available to international students as well. Talent Search programs can be offered online or held on the campuses of many colleges and universities throughout the country. Additionally, pull-out classes and programs for the gifted, including cluster or interest groups exist in schools throughout various states.

1.19 Mandates

Many countries in the world, similar to states in the U.S., do not have strong mandates for gifted identification and education. It can be inferred that exposure to gifted educational requirements for undergraduate and graduate teacher-training degrees may also be limited. Little, if any, professional pre-service coursework or training has been offered to meet the special needs of gifted children in general teacher education courses at many colleges and universities. Therefore, unless a teacher specifically enrolled in a course to study gifted education, he or she may not graduate with an understanding of the importance for intervention and how to provide appropriate tools and strategies when working with this exceptional population of children.

It can be stated that teachers who did not have specific courses in teaching high ability students may not be aware of how to properly identify and provide for gifted children in their mainstream classrooms. Some colleges or universities in the United States require teacher endorsements in gifted education consisting of eighteen or more credit hours of instruction. Others may only introduce the idea of gifted children as exceptional learners in a Special Education course.

The lack of consistent provision for teacher training of gifted students is typical in other countries around the world as well. A notable exception is the Radboud University Center for the Study of Giftedness (CBO) in the Netherlands. The Center is accredited by the European Council of High Ability (ECHA) and offers the possibility to become a ‘Specialist in Gifted Education.’ It offers a broad choice of gifted education courses that range from in-service training programs, both at the bachelor and master level, to seminars conducted by individual trainers and practitioners who do not necessarily have specific qualifications or training in the field.

Unlike the airlines we fly, there is no insurance policy for gifted education in many countries because policies and mandates are still ‘up in the air.’ Similar to finding out the allotted number of suitcases per person for a flight, you need to learn the age a child can be identified as gifted in your school district in your particular state or country and how to provide for each one. So, with preparations underway and your passport in hand, let us begin our journey to the world of gifted education!

References

1. Freeman, J., Raffan, J., & Warwick, I. (2010). *Worldwide provision to develop gifts and talents: An international survey*. [Online], <http://joanfreeman.com/pdf/towereport2.pdf>. Accessed on November 28, 2013.
2. OECD Better Policies for Better Lives. Program for International Student Assessment. *PISA 2012 results*. [Online], <http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>. Accessed on June 6, 2016.
3. Winner, E. (1996). *Gifted students: Myths and realities*. New York: Basic Books.
4. Bishop, K., et al. (2010). *Exceptional needs standards* (2nd ed.). National Board for Professional Teaching Standards (NBPTS). VA: National Board Certification for Teachers.
5. McLoughlin, C., & Lee, M. J. W. (2007). Providing choices for learners and learning: Proceedings Ascilite Singapore in December 2015 Cynthia Luna Scott. The futures of learning 3: What kind of pedagogies for the 21st century? UNESCO Education Research and Foresight, Paris. [ERF Working Papers Series, No. 15]. [Online], <http://www.unesdoc.unesco.org/images/0024/002431/243126e.pdf>. Accessed on November 2, 2016.
6. DuBois, P. H. (1970). *A case study of psychological testing*. Boston: Allyn and Bacon.
7. Project Gate. (2013). Lifelong Learning Programme. European Standards Education Booklet for GATE Children. [Online], http://www.nrda.lt/files/Booklet1_EuropeanStandardsEducationBookletForGATChildren.pdf. Accessed on June 5, 2016.
8. Taylor, C. A., & Kokot, S. J. (2000). The status of gifted student education in Africa. In K. A. Heller, F. J. Monks, R. J. Sternberg, & R. F. Subotnik (Eds.), *International handbook of research and development of giftedness and talent* (2nd ed.). Oxford, UK: Elsevier Science Ltd., pp. 700–815.
9. Freeman, J. (2003). Permission to be gifted: How conceptions of giftedness can change lives. In R. Sternberg & J. Davidson (Eds.), *Conceptions of giftedness*. Cambridge: Cambridge University Press, pp. 80–97.
10. Gallagher, J. J. (1991). The gifted: A term with surplus meaning. *Journal for the Education of the Gifted*, 14(4), 353–365.
11. Williams, W. G., & Mitchell, B. M. (1989). *From Afghanistan to Zimbabwe: Gifted education in the world community*. New York: Lang.
12. Terman, L. M., et al. (1925). *Genetic studies of genius: Volume 1, Mental and physical traits of a thousand gifted children*. Stanford, CA: Stanford University Press.
13. Minton, H. L. (1988). *Lewis M. Terman: Pioneer in psychological testing*. New York: New York University Press.
14. Klein, A. G. (2002). *A forgotten voice: A biography of Leta Stetter Hollingworth*. Arizona: Great Potential Press.
15. Hollingworth, L. S. (1942). *Children above 180 IQ (Stanford-Binet): Origin and development*. Yonkers-on-Hudson, NY: World Book Company.
16. Zhilin, D. M. (2000). Work with gifted children in Russia. *Tall Poppies Magazine*. [Online], <http://www.giftedchildren.org/nz/national/article9.php>. Accessed on July 7, 2007.
17. Grigorenko, E. L. (2000). Russian gifted education in technical disciplines: Tradition and transformation. In K. A. Heller, F. J. Monks, R. J. Sternberg, & R. F. Subotnik (Eds.), *International handbook of giftedness and talent* (2nd ed.). Oxford, UK: Elsevier Science, Ltd., pp. 735–742.
18. Lauzikas, J. (1981). *Principles of improvements in the teaching process*. Kaunas, Lithuania: Sviesa.
19. *Sputnik and The Dawn of the Space Age*. [Online], <http://history.nasa.gov/sputnik>. Accessed on December 20, 2015.
20. Flemming, A. S. (1960, January). The philosophy and objectives of the National Defense Education Act. *Annals of the American Academy of Political and Social Science*, 327, 132–138.

21. Sternberg, R. J. (1988). *The triarchic mind: The new theory of human intelligence*. New York: Viking.
22. Robinson, K., & Aronica, L. (2009). *The Element*. London: Penguin Books.
23. Eyre, D. (2009). *The English model of gifted education*. The Netherlands: Springer.
24. National Association of Gifted Children (NAGC) (2005). *Frequently asked questions about gifted education*. [Online], <https://www.nagc.org/resources-publications/resources/frequently-asked-questions-about-gifted-education>. Accessed on August 11, 2016.
25. Gagné, F. (December 2, 2008: 157). Debating Giftedness: Pronat vs. Antinat. In L. V. Shavinina (Ed.), (2009). *International handbook on giftedness*. Springer Science + Business Media V.V. [Online], <http://gagnefrancoys.wixsite.com/dmgt-mddt/dmgtenglish>. Accessed on September 14, 2016.
26. National Association for Gifted Students (NAGC). [Online], <http://www.nagc.org>. Accessed on August 1, 2013.
27. National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. [Online], <http://www2.ed.gov/pubs/NatAtRisk/index.html>. Accessed on December 20, 2015.
28. Jacob Javits Gifted and Talented Students Education Act by National Association for Gifted Children (NAGC). [Online], <https://www.nagc.org/resources-publications/resources-university-professionals/jacob-javits-gifted-and-talented-students>. Accessed on December 20, 2015.
29. National Association of Gifted Children (NAGC). [Online], <http://www.nagc.org>. Accessed on December 11, 2015.
30. National Education Forum, Education for All. (2003:5). Ministry of Education and Science, Lithuania, computerization of Lithuanian schools: History and problems. [Online], <http://www.smm.lt/en/edu-reform/sp021009.PDF>. Accessed July 7, 2008.
31. Vebraitė, V. (2004, October 9). *UNESCO seminar report: Curriculum change and teacher education in Lithuania*. [Online], http://www.ibe.unesco.org/publications/regworkshops/finrep_PDF/finrep_tbilisi_03.pdf. Accessed on June 1, 2009.
32. Feldhusen, J. F., & Jaran, F. (1993). Identification of gifted and talented youth for educational programmes. In K. A. Heller, F. J. Monks, R. J. Sternberg, & R. F. Subotnik (Eds.), (2000). *International handbook of giftedness and talent*. Oxford, UK: Elsevier Science, Ltd., pp. 271–282.
33. Gilman, B. J. (2008). *Academic advocacy for high ability students*. Arizona: Great Potential Press.

Chapter 2

Following a Plan: Pursuing a Model of Giftedness

The artist is nothing without the gift, but the gift is nothing without work.

—Emile Zola (French Writer). [Online], <http://www.goodreads.com/quotes/16246-the-artist-is-nothing-without-the-gift-but-the-gift>, as accessed on 9/6/16.

Abstract Similar to the job each airline crew member needs to perform in preparation for a flight take-off, a school district also needs to pursue an action plan for identifying and educating its gifted students. This plan is commonly referred to as a ‘model’ or ‘framework.’ Because numerous international models of gifted identification exist, a school district must choose one that best addresses their particular student population and is inclusive to encourage participation from underserved populations. To make an informed decision about what model to select, members of the gifted identification screening committee need to prioritize criteria for identifying and educating their population of students who demonstrate characteristics of giftedness. They also need to consider how to develop these characteristics in all children to produce high learning performance.

Keywords High performance learning framework • Diagnostic approach • Differentiated model of gifted and talent (DMGT) • Identification • Multiple criteria • Developing provision • Three-ring conception of giftedness • Staff development • Tannenbaum’s Sea Star model

2.1 Flight Plan

Every airline crew member has a job to do in preparation for a flight takeoff. The mechanic conducts a final inspection of the engine and motors as the luggage is loaded onboard. Flight attendants stroll down the aisle to ensure everyone is in their correct seat with a seatbelt secured around their waist. The pilot inspects the instrument panel in the cockpit and communicates with the control tower for

permission to taxi down the tarmac. Each crew member plays a critical role in the teamwork required to put the flight plan into action for a successful takeoff.

School districts also need to pursue an action plan for identifying and educating gifted students. This plan is commonly referred to as a ‘model.’ Because numerous international models for gifted identification exist, a school district needs to choose one that best addresses their particular student population. To make an informed decision about what model to select, members of the gifted identification screening committee need to prioritize criteria for identifying and educating their population of exceptional learners who demonstrate a potential for giftedness.

The following four well-known identification models exemplify different approaches, yet support multiple components for identifying the potential for high performance capability in all cultural groups and across all economic strata. Reflecting prominent theories of high ability or giftedness, these models are inclusive, rather than exclusive.

2.2 Four Identification Models

An identification model worth introducing first is the Dr. Joseph Renzulli *Three-Ring Conception of Giftedness*. Gifted and talented children are defined as those individuals who possess, or are capable of developing, a composite of traits and can then apply them to any potentially valuable area(s) of human performance. Renzulli emphasizes giftedness can be found in certain people (not all people), at certain times (not all the time), and under certain circumstances (not all circumstances). This comprehensive and widely accepted, world-renowned model focuses upon a combination of three components that need to exist simultaneously for a student to be identified as ‘gifted’ that are not reliant upon an IQ score [1]:

- (1) Creativity
- (2) Task Commitment
- (3) Above Average Intelligence (Fig. 2.1).

The Three-Ring Conception of Giftedness Model has been updated as ‘Operation Houndstooth.’ The houndstooth background reflects the interactive influences of personality and environment: Optimism; Courage; and Romance with a topic or discipline; Sensitivity to human concerns; Physical/Mental Energy and Vision/Sense of destiny [2] (Fig. 2.2).

A second model for consideration is the Dr. Abraham Tannenbaum *Sea Star Model* [3], which represents a psycho-socio approach to giftedness. Although somewhat restrictive in its consideration for specifying five main factors for giftedness, the model goes beyond general and specific abilities of an individual by suggesting ground-breaking changes of providing an enriched curriculum for all children. Tannenbaum proposed to maximize chances of children reaching their full potential by exposing them to a broad range of information and experiences. This was a radical idea for its time [3] (Fig. 2.3).



Fig. 2.1 Three Ring Conception of Giftedness (Renzulli) [1]

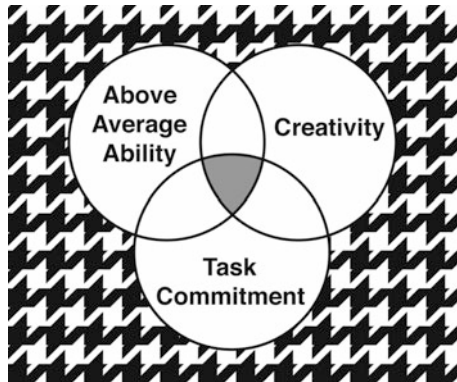


Fig. 2.2 Operation Houndstooth (Renzulli) [2]

Tannenbaum’s Model examines additional areas to represent a holistic approach of giftedness that includes specific ability, environmental, chance, non-intellective, and general ability factors as illustrated by the five tentacles of the Sea Star. Similar to the Renzulli Three-Ring Conception of Giftedness Model in which all three circles must be present simultaneously in an individual to signify giftedness, all five areas must also be present in Tannenbaum’s Sea Star Model for giftedness to develop. Importantly, this five-point model influenced many educators to examine the complexities of giftedness because it enabled an infinite combination of possibilities to be created. A deficiency in any one area cannot be offset by the other four. In comparison to the other four areas, ‘Chance Factors’ presents an interesting component because of its uncontrollable and unpredictable nature in the identification process of giftedness.

Tannenbaum’s Sea Star Model allows for an individual’s potential to become critically acclaimed performers or exemplary producers of ideas and exhibits

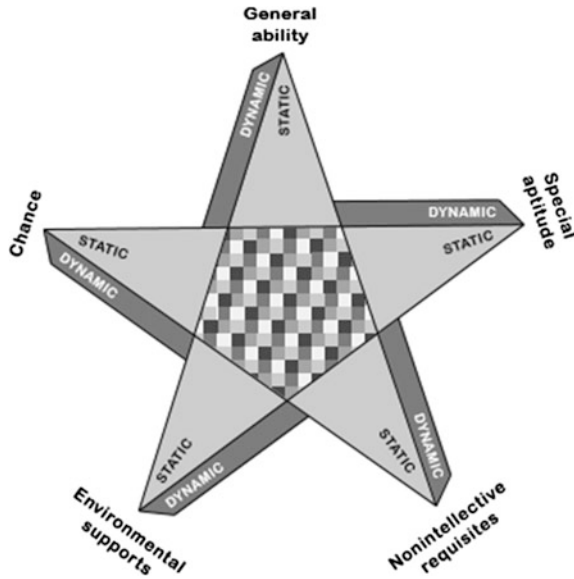


Fig. 2.3 Sea Star Model (Tannenbaum) [3]

elements that are both static (as the child is now) as well as dynamic (as the child learns and develops). This model does not assign more value or weight to any one particular area or ray of the sea star [3].

A third internationally known gifted identification model is Gagné's *Differentiated Model of Giftedness and Talent* (DMGT). According to Professor François Gagné, an individual is considered gifted if they possess and use their untrained and spontaneously expressed superior natural abilities in at least one domain. These abilities are commonly referred to as 'aptitudes' or 'gifts.' Gagné recognized gifted underachievers who may not be working to their full potential. Because of attention paid to distinguishing between 'gift' and 'talent,' this model has been a forerunner for models in the field of gifted education [4] (Fig. 2.4).

Gagné's model supports the idea that all talents are developed from natural abilities and from learning that is influenced by both inner and outer catalysts. Although the model has been refined several times over the past years, the main components of 'Natural Abilities' and 'Talent' remain the same. He offers the following list of categories in which school-aged children may excel to demonstrate their exceptional intelligence: Academics; Arts; Business; Leisure; Social Affection; Sports and Technology. In addition, Gagné also presents a list of four domains reflecting natural abilities in children that are mostly genetically determined: Intellectual Abilities (reasoning, judgment, memory, sense of observation, and metacognition); Creative Abilities (inventiveness, imagination, originality, and fluency); Socio-affective Abilities (perceptiveness, communication, empathy, tact, and influence) and Sensorimotor Abilities (sensitivity, strength, endurance, coordination, etc.). Gagné places gifted children among the top 10% of the student

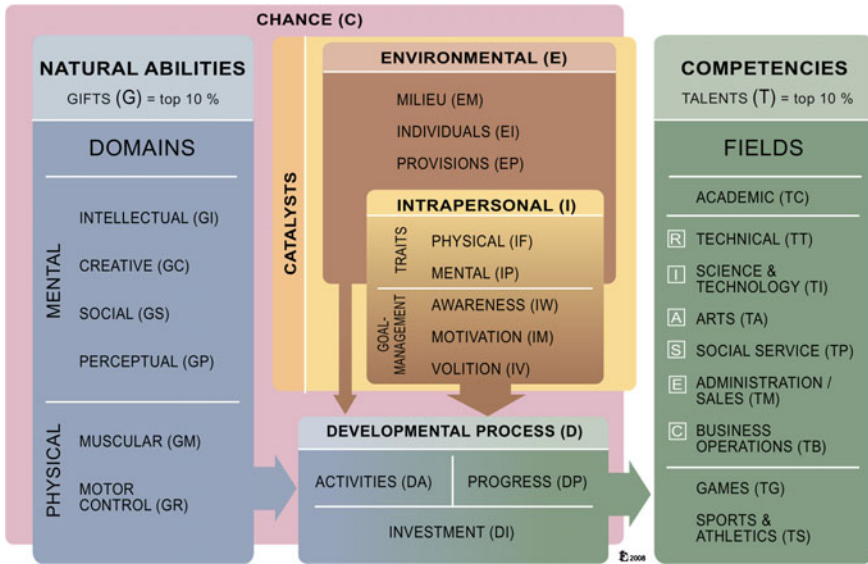


Fig. 2.4 Differentiated Model of Giftedness and Talent (DMGT) (Gagné) [4]

population. Genetic influences are commonly accepted as a dominant factor of giftedness in Western cultures when children are compared with similar age peers in the top 10% [5].

The *High Performance Learning Framework (HPL)* is the fourth model for examination. Although rooted in *The English Model*, it was first developed by Professor Deborah Eyre and became known as *The Eyre Equation* [7]. HPL presents a formula to analyze high achievement of high ability learners and offers implications for all children in the classroom needed to experience success. Although a relatively ‘new’ model, HPL continue to grow as it is implemented in school districts throughout China, Europe, Middle East/South East Asia, and North America.

In the High Performance Learning Framework, teachers and parents must provide opportunities and offer support for children ages 5–11 mainly in the regular classroom to find their natural aptitude or interest. More sophisticated opportunities are offered as the child progresses in age. These components, in combination with ‘potential’ and ‘motivation,’ can encourage and produce high achievement in all children, including the highly able [6] (Fig. 2.5).

The HPL Model focuses upon the concept that children must experience opportunities to help them realize their innate potential. Thus, it represents a more inclusive approach for high ability to emerge. The formula promotes integrative education in which the classroom teacher is also the teacher and identifier of high ability children. However, schools are responsible for determining how to embed the four strategies into the mainstream curriculum for developing their highly able learners [6].

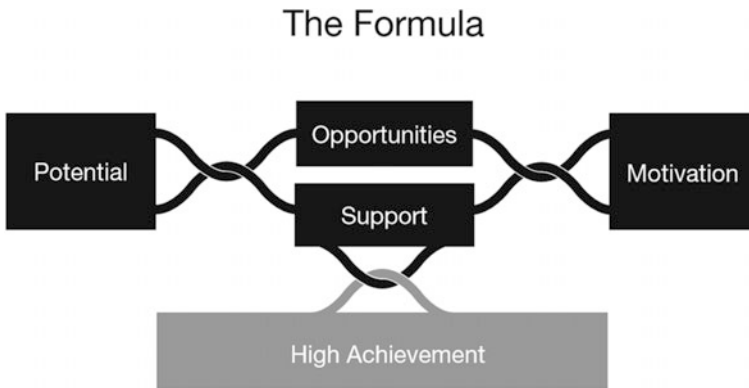


Fig. 2.5 The High Performance Learning Framework (Eyre) [6]

A brief representation of four gifted identification models has been presented to illustrate how giftedness can differ philosophically. Because it is important for a school district to select a model that can serve as the basis for identification of gifted children, it must be as inclusive as possible and distinguish the particular kind of giftedness a school district wants to recognize in their population of students.

A more inclusive approach favored by education systems today is one that provides equality of opportunity as a response for an appropriate education. Without being provided with appropriate opportunities that peak interest and challenge at their level of high ability, gifted children may never realize what they are capable of achieving or can realistically know what to expect of themselves.

2.3 Two Diagnostic Approaches

Similar to the diagnostic preparation of an airline, teaching is also a profession that must use a diagnostic approach. This approach should reflect sound practices and appropriate systematic tools for the specific purpose of identifying gifted students.

There are two diagnostic approaches to gifted education widely used in the United Kingdom today. The first diagnostic-prescriptive approach is commonly known as the *Medical Model* or *DIP* (Define, Identify, and Provide). It identifies gifted or 'highly able' children by using a set of specific measures to identify and provide for them using general and broad conditions [8]. However, using this process may not adequately recognize those students who marginally fail to qualify as gifted and, thus, is rather exclusive.

The second diagnostic approach is a more sophisticated and inclusive one that relies on assessing responses to provision and providing support appropriate for gifted or highly able students. Subsequently, it further develops provision according to student outcome. This method is referred to as the *Sports Model* or *PIP* (Provide, Identify and Provide) and exists in the areas of athletics and the arts. Students can be recognized and identified for their talent demonstrated during an activity through

teacher observation. For example, if a student easily masters a piece of music, a teacher would offer a more advanced and challenging piece to the individual.

2.4 Takeoff!

With the flight plan for a specific destination underway, the plane is now prepared for takeoff. Similar to getting the plane up in the air, a school district requires a formal gifted identification process to educate its gifted students. The first step for a school district is to establish a gifted identification screening committee that is led and supported by a school administrator. The committee should include a school psychologist, counselor, and/or guidance personnel and at least one classroom teacher. Additionally, if a program for the gifted is already in place, the teacher of that program should serve on the committee as a liaison between the school and community.

Schools need to publicly provide information about the gifted identification process to educate and inform teachers, parents, and community members. When sharing important information, a school district should include their educational identification and provisional policy by providing their definition of giftedness, qualification criteria, locations for securing nomination forms, and procedural deadlines. By keeping everyone regularly informed, the school district's mission for gifted education will be communicated clearly, and, subsequently, will receive the necessary credibility and support from the public.

Following is a five-step plan for a school district to implement a gifted identification procedure:

2.5 Five-Step Plan for Gifted Identification

1. Determine a Definition of 'Gifted'

After researching, a school screening committee needs to decide upon a working definition of giftedness based upon their cultural values to present to the Board of Education for adoption. It is important to understand how culture affects the identification and, subsequently, provision for gifted children. Therefore, committee members need to commit to an articulated definition that will be the driving force for identifying students as 'gifted.' Members of the screening committee need to commit to a definition that is inclusive, rather than exclusive, of exceptional learners. They should become familiar with appropriate testing and teaching materials to appropriately serve the population of minority children in the school district.

2. Select a Gifted Identification Model and Appropriate Provisions

The school screening committee should research and select a model that supports their definition of giftedness. A group consensus for multi-criteria, not the results of one identification tool, is a necessity for the decision-making process of gifted identification.

In addition to selecting both a definition and an identification model, the gifted identification screening committee also needs to decide upon the kind of provisions they will offer identified gifted students. The provision should be comprehensive and evidence based. They should be effective so the program aligns with the chosen identification model. This decision should be based upon the approach of the Medical (DIP) or Sports Model (PIP). For example, if the committee chose the Renzulli Three-Ring Conception of Giftedness Model, they would want to choose provisions that are supportive, e.g., the Renzulli and Reis *Schoolwide Enrichment Model (SEM)*. It is important to create a good fit between identification and provision for a school district to achieve sustainability of a gifted program.

SEM offers flexibility in how a student can participate. Based upon their interests and needs, children who qualified for the talent pool can revolve in and out of a pull-out gifted enrichment program throughout the year with the permission of their teacher and parents (Fig. 2.6).

SEM is a model that supports two different kinds of high ability or giftedness: ‘schoolhouse’ (academic ability) and ‘creative/productive high ability’ designed by Dr. Joseph Renzulli and Dr. Sally Reis. In this enrichment model, students benefits by an exposure to a wide array of schoolwide enrichment opportunities in many,

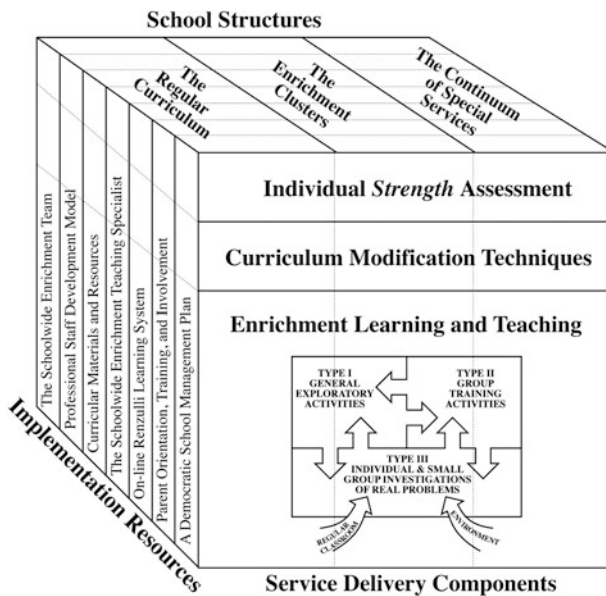


Fig. 2.6 The Renzulli and Reis *Schoolwide Enrichment Model* or SEM [2]

different areas. Teachers need to receive training to implement a systematic set of strategies for increasing students' effort, enjoyment, motivation, and performance to integrate various advanced learning experiences and higher order thinking into their existing curriculum. Talent development can be enhanced by individual student portfolios in addition to differentiation of both the curriculum and instruction when working with a talent pool of students.

As a part of the schoolwide enrichment, Renzulli identifies a Triad Model that offers three types of enrichment. Type I and II enrichment activities are appropriate for all students in a classroom or an identified talent pool of gifted children, whereas Type III activities are aimed at those who are gifted and want to pursue a topic in greater depth:

Type I—Exposure to a variety of resources, experiences, and opportunities not found in the regular curriculum to stimulate new interests with a possible pursuit of an independent study;

Type II—High level of creative and critical learning experiences through research and problem-solving that focus on learning and applying new skills; and

Type III—Stimulating new interests by working independently or in small groups on a topic of the student's interest, e.g., conducting research and an Independent Study with an authentic audience [2].

Based upon the Triad Model, identified gifted students are exposed to different options that may consist of a gifted and talented pull-out program, cluster or interest group, entire class or whole school enrichment and/or acceleration opportunities. A school district may offer any combination of these options that address the interests, abilities, and needs of their particular student population.

3. Examine and Select Appropriate Identification Tools

It is the responsibility of the screening committee to become familiar with various cultural assessment materials they want teachers to use in the identification of gifted minority students. Although ideal, screening of the entire school population can be expensive. However, teachers can re-norm or localize any tests based upon their student's specific needs and use subgroup norms that are established by test developers for minority groups. Alternative testing instruments can also be used if they measure the same construct.

Decisions concerning placement of a child in a gifted program can be determined based upon the screening committee's final evaluation. Some students might underachieve or overthink questions due to the linguistic bias of tests [9]. We know that not every child tests well and some, including gifted children, may underachieve. However, the good news is that a student's abilities can change over time. Therefore, a child who received a nomination, but did not qualify as gifted one year, deserves to be re-evaluated the following year.

Tests

It is important to remember that no single test should be used to include or exclude students from an identification process. Indeed, multiple methods or criteria are needed for the identification of gifted children. Although an IQ test is commonly used as a sample of information for identifying gifted students, it is limited in scope [10]. The IQ test, however, has proven to be valuable to identify those students who are underachievers. An indicator of underachievement is when a student achieves a high IQ score, but earns a low grade on an achievement test in class. Additional signs of underachievement that teachers and parents can watch for include boredom, complacency, conformity, and rebellion in students [11].

Nominations

Although not new, teacher nomination is a popular and commonly used method to identify gifted students in many countries [12]. Because teacher nomination has its limitations, research reveals this method to be quite controversial. Pagnato and Birch view teacher nominations as an ineffective and inefficient identification process and recommend testing [13].

Some researchers report teachers have a tendency to be biased about a student's performance assessment, especially when identifying a student who is culturally diverse [14]. Yet, it can also be argued that teachers can adequately judge giftedness in students. Although variations may exist among individuals, research shows that teachers are quite consistent within their own diagnosis [15].

Thus, it is important for all teachers who are involved in the gifted nomination process to be operating from a similar list of required criteria that has been explained to them. Teachers should be mindful to nominate girls as well as boys, who sometimes get left behind. Despite such disagreement among researchers, with proper training to recognize giftedness, teacher nominations can be a useful and important tool in the identification process when high ability is not evident from standardized test scores. Nonetheless, teachers play an important role of alerting a school screening committee to the possibility of recognizing a child as a potentially exceptional learner.

In addition to teacher nomination, the screening committee should consider nominations by parents, peers and the gifted child. Creating a new nomination form or using a preexisting one, e.g., Renzulli nomination forms, will provide consistent reporting of data that the screening committee can use to analyze when deciding which children qualify as 'gifted.' The committee should decide when nominations can be made during for selecting a talent pool of gifted candidates for the school year.

The gifted identification screening committee members must decide on a procedure to follow for the identification process. They need to make decisions, set deadlines, and prepare the paperwork for conducting standardized student interviews, testing, and analysis of the data. The resulting information needs to be clearly communicated to teachers, parents, and gifted candidates. The screening committee also needs to communicate the results with students who did not qualify

as gifted, but were nominated. If a child does not qualify as gifted at this point in time, the committee needs to inform the nominators and parents when the child might be eligible to be nominated again.

Committee members should decide on additional enrichment and/or opportunities that can be provided for these students to offer them some provisions and or opportunities that address their high ability. A good screening committee is only as effective as its consistency and thoroughness of communicating and implementing the identification process within the school and community.

4. Develop Multiple Criteria

Employing a variety of resources, i.e., multiple criteria, can provide a variety of ways to examine and evaluate the potential and ability of a child to qualify them as ‘gifted.’ Because each child is unique, it is important to accurately assess an individual’s abilities and potential. Assessment and evaluation tools should be supported by research and inclusive in practice to recognize a potentially gifted student who may not be readily perceived as a gifted candidate, e.g., underachiever or minority student. Therefore, it is important to observe children interacting in a variety of learning experiences that are particularly useful for identifying gifted students from nontraditional backgrounds to obtain a more accurate and complete picture of potential and ability [10].

There are numerous multiple criteria options that can be conducted both in and out of school to support the development of a gifted identification procedure:

- Achievement test
- Creativity task or test
- Informal observation(s)
- Intellectual ability test
- IQ score
- Leadership ability
- Nomination by self
- Nomination by peer(s)
- Nomination by teacher(s)
- Nomination by parent or guardian
- Portfolio
- Report card grades
- Talent identification
- Teacher interview(s)
- Student interview.

After the screening committee decides upon the multiple criteria that will be used to identify gifted individuals, nominations of possible gifted candidates can be received and reviewed by committee members at a designated meeting. A ‘blind screening’ (anonymity) is required in which each candidate is assigned a number so their compiled information is analyzed objectively so the candidate remains anonymous to promote fairness in determining which students qualify as ‘gifted.’

5. Decide on Provisions and Staff Development

The identification process of labeling a gifted individual is not a final destination in the journey to the world of gifted education. Once a gifted student has been labeled by a school district, appropriate provisions must be identified, created, and put into place to address their exceptional learning needs.

Professional staff development should be provided by the school district to build both understanding and appreciation for gifted children. The staff development should focus on informing teachers about specific skills and strategies that are effective in teaching different types of gifted learners. Gifted students need to be offered appropriate provisions and opportunities that motivate and extend their learning.

According to Rogers (2002), good provisions should include instructional management, instructional delivery services and curricular services. Rogers argues the importance of matching each child with the program and not imposing a program on a child [16]. Thus, to create an effective curriculum that is student-driven, a teacher must match the content with their students' various interests, learning styles, and ability levels.

Provisions offered by the school should meet the needs of their identified students who are now formally recognized as exceptional learners. Some options to consider include individualization, cluster grouping, cross-graded class, or advanced placement. Schools need to devise a policy to ensure the provision of equal access for all gifted students [17, 18]. Teachers should be trained in implementing these options. Various enrichment and acceleration opportunities should also be conceptualized and offered to extend the curriculum.

Individual resources and talents run wide and deep. Thus, teachers need to learn how to create extension opportunities for student to demonstrate exceptional learning ability to develop their particular interests and talents. When educational opportunities are denied to gifted children on the basis of a lack of equal access, families who can financially afford to offer additional educational provisions will probably do so. However, families who do not have the financial means may find their gifted child is missing out.

2.6 Creating Opportunities for Enrichment and Acceleration

Enrichment opportunities can expose children to new and creative ideas. By motivating gifted children to delve deeper, they can explore a topic of their interest in greater depth. Enrichment provisions can also be made by providing interdisciplinary connections within the curriculum to extend the learning for all students. Some ideas for possible enrichment opportunities include fieldtrips to museums, speakers, workshops, sport events, art shows, college campus visits, concerts, and visitations by former students in a gifted program. Teachers can involve students,

parents, and community members by inviting them to share their ideas for enrichment opportunities.

Another way to nurture the academic development of a gifted student is through acceleration. Acceleration offers a gifted child the opportunity to work at a more rigorous level that challenges and motivates them to learn more complex material. Taking above grade-level examinations for advanced placement courses at an earlier age is a way for a gifted child to demonstrate a higher ability to learn and develop readiness for a range of options that lead to an appropriate education [19]. It is important that enrichment and acceleration options follow an early identification of giftedness to provide intervention and equal access of education. Both enrichment and acceleration will be discussed more fully in Chaps. 7 and 8, respectively.

References

1. Renzulli, J. S. (1998). The Three-ring conception of giftedness. In S. M. Baum, S. M. Reis, & L. R. Maxfield (Eds.), *Nurturing the gifts and talents of primary grade students*. Mansfield Center, CT: Creative Learning Press, pp. 1–27.
2. Reis, S. M., & Renzulli, J. S. (2009). The Schoolwide Enrichment Model: A focus on student strengths & interests. In J. S. Renzulli, E. J. Gubbins, K. S. McMillen, R. D. Eckert, & C. A. Little (Eds.), *Systems and models for developing programs for the gifted and talented*. Mansfield Center, CT: Creative Learning Press. Reproduced with permission of the author September 5, 2016, pp. 323–352.
3. Tannenbaum, A. (1986). Gifted: A psychological approach. In R. J. Sternberg & J. E. Davidson (Eds.), <http://cateringforgifted.wikispaces.com/file/view/Untitled1.png/169743109/397x314/Untitled1.png>. *Conceptions of giftedness*. Cambridge, MA: Cambridge University Press.
4. Gagné, F. (1985). Gifted and talent: Re-examination of the definition. *Gifted Student Quarterly*, 29, 103–112. <http://gagnefrancoys.wixsite.com/dmgt-mddt>. Updated 2007. Reproduced with permission of the author February 2, 2017.
5. Gagné, F. (1999). My convictions about the nature of abilities gifts, and talents. *Journal for the Education of the Gifted*, 22(2), 109–136.
6. Eyre, D. (2015). *High performance learning: How to become a world class school*. London: Routledge. Reproduced with permission of the author September 9, 2016.
7. Eyre, D. (2009). The English model of gifted education. In L. Shavinina (Ed.), *The international handbook on giftedness*. Amsterdam: Springer Science and Business Media, pp. 145–161.
8. Kirklees Educational Service. (2012). *Providing for gifted and talented students in your school*. Oxford Brookes University, England: Deighton, Huddersfield, Kirklees-ednet.org.uk. [Online], Accessed on August 12, 2013.
9. Eyre, D. (1997). *Able students in ordinary schools*. London: David Fulton Publishers.
10. Ford, D. Y., & Harris, J. J., III. (1999). *Multicultural gifted education*. New York: Teachers College, Columbia University.
11. Siegle, D. (2012). *The underachieving gifted child: Recognizing, understanding, and reversing underachievement*. Waco, Texas: Prufrock Press.
12. Hunsaker, S. L., Finley, V. S., & Frank, E. L. (1997). An analysis of teacher nominations and student performance in gifted programmes. *Gifted Child Quarterly*, 41, 19–24.

13. Pagnato, C. W., & Birch, J. W. (1959). Locating gifted children in junior high schools: Comparison of methods. *Exceptional Children*, 25, 300–304.
14. Kaufman, A. S., & Harrison, P. L. (1986). Intelligence tests and gifted assessment: What are the positives? *Roeper Review*, 8, 154–159.
15. Hany, E. A. (1993). Methodological problems and issues concerning identification. In K. A. Heller, F. J. Monks, & A. H. Passow (Eds.), (2000). *International handbook of research and development of giftedness and talent*. Oxford, UK: Pergamon Press, pp. 209–232.
16. Rogers, K. B. (2002). *Re-forming gifted education, matching the program to the student*. Arizona: Great Potential Press.
17. George, D. (1997). *The challenge of the able child*. London: David Fulton Publishers.
18. Dean, G. (2001). *Challenging the more able language user*. London: David Fulton Publishers.
19. Colangelo, N., Assouline, S. G., & Gross, M. U. M. (2004). *A nation deceived: How schools hold back America's brightest students*. Iowa: Belin and Blank International Center at the University of Iowa.

Chapter 3

Considering Flying First Class: Contemplating if Anyone Can Be ‘Gifted’

A human being is a single being. Unique and unrepeatable.
—Eileen Caddy (Writer and Teacher). [Online], <http://www.brainyquote.com/quotes/quotes/e/eileencadd165895.html>, as accessed on 9/6/16.

Abstract Unlike flying first class, giftedness does not occur because an individual can find the means and chooses to be gifted. Giftedness occurs naturally and without any formal training. Although parents can expose their child to a rich environment to provide special challenges and opportunities, a child cannot be trained to demonstrate exceptional or outstanding talent in a particular area without having an innate ability. To recognize giftedness in a child, both teachers and parents need to comprehend their potential as well as their abilities. This chapter recognizes accelerated asynchronous learning in gifted individuals and the need for early intervention by presenting the first of eight case studies as written by a gifted child. The case study is followed by intervention strategies for both teachers and parents using pre-assessment, creating flexible groups and offering choice both in and out of school.

Keywords Asynchronous learning · Boredom · Differentiation · Early intervention · Flexible grouping · Motivation · Offer choice · Parenting · Pre-assessment

3.1 Flying First Class

First class is a great way to fly! Not only are first class passengers the first to board the airplane, but they receive additional perks and service during the flight. Compared to traveling economy class, the seats are more luxurious and there is more space for leg room. Although it is true that flying first class costs more money, if you can afford the additional ticket price, it can be argued that anyone with the means has the possibility to fly first class. So, is it the same for children? If they have the resources, can anyone be considered to be ‘gifted’?

Unlike flying first class, giftedness does not occur because an individual can find the means and chooses to be gifted. Giftedness occurs naturally and without any formal training. Although parents can expose their child to a rich environment to

provide special challenges and opportunities, a child cannot be trained to demonstrate exceptional or outstanding talent in a particular area without having an innate ability. To recognize giftedness in a child, both teachers and parents need to comprehend their potential as well as their abilities.

3.2 Is First Class for Everyone?

If presented with the choice, not every traveler might decide to fly first class because the cost can be prohibitive. Similarly, not every child wants to be gifted. Some children would rather spend their time playing a computer game rather than coding software. Difficulties often result from an asynchronous development, which impacts learning for gifted children and creates unique social and emotional needs. Because many gifted children do not want to stand apart and be viewed differently than their peers, they may not want to be recognized for their advanced abilities. Therefore, it is critical for both teachers and parents to nurture and support gifted children by helping them to feel good about themselves. To develop self-esteem, gifted children need to feel comfortable about themselves and learn to appreciate their potential and unique abilities.

3.3 Parenting a Gifted Child

Although giftedness can be observed early during the first three years of a child's development, some people mistakenly believe students demonstrate high potential as a result of pushy parents.

The truth is that parents of a gifted child can be an excellent resource for schools because they are usually the first adults in a child's life to encourage and nurture innate abilities. By sharing stories of their child's early developmental accomplishments, e.g., reading or solving math problems at an early age, parents can play a critical role in helping teachers to recognize early signs of giftedness that set their child apart from their classmates [1].

Even though a gifted child has the potential to learn easily and at a higher ability level than their peers, teaching or parenting a gifted child is not always easy. At times, teachers and parents are unsure about how what they can do to help. Many gifted children experience the world with heightened sensitivities and, therefore, may exhibit troublesome behaviors. Because of their uniqueness, gifted children often encounter social isolation and yearn for a sense of belonging. Thus, it is important that adults learn to advocate for gifted children to honor their differences and to help them cope with challenges that arise in life.

Just because gifted children have a potential for learning at a higher level than their peers does not mean they meet adult expectations to act maturely or demonstrate leadership. Many times, gifted children are not interested in being a

leader in the classroom. They may prefer to delve deeper into a topic about which they are passionate. Therefore, they may exhibit little, if any, motivation to do work that is not of interest to them. Or, gifted children may not put much effort into their regular class assignments. A teacher who is presented with this challenging behavior can find greater success if they recognize and integrate the child's areas of interests within the curriculum.

Although they may excel in certain academic areas, gifted children can be weaker than their peers in other areas. Due to an accelerated asynchronous learning style, it is important for both teachers and parents to recognize that troublesome behavior can result because the gifted child doesn't understand how to fit in. With understanding and guidance from the adult figures in their life, gifted children can gain the support they need to achieve their full capacity for learning. Many gifted children have the potential to become our country's future leaders.

If a parent fails to recognize the potential for their child's exceptionalities, chances are teachers may overlook them as well. In addition, if psychologists, psychiatrists, pediatricians or other healthcare professionals do not receive training about the characteristics of giftedness, a diagnosis can be made that overlooks the gifted child's high ability. This can result in a misdiagnosis and mislabeling of students with Attention Deficit Hyperactivity Disorder (ADHD), Autism, Depression or Bipolar disorders [2].

It is also important for parents to acknowledge that just because one child in their family is gifted does not automatically imply the siblings are also gifted. Through collaboration and teamwork, both teachers and parents can provide the much needed understanding and support to ensure gifted children develop a sense of awareness and acceptance of who they are.

3.4 Accurate Identification

It should be noted that an accurate identification of giftedness is important. If the gifted identification screening committee is not careful, a child can be mistakenly diagnosed as 'gifted.' This would result in pushing a child to perform at a higher academic level than which they are not capable. Unfortunately, such a misjudgment could result in negative consequences and emotional problems for the child. Therefore, the first step in providing an appropriate education for a gifted child is that they receive an accurate diagnosis.

Just because a child is identified as gifted does not mean they will automatically be destined for fame. And, just because an individual is *not* labeled as 'gifted' does not imply they cannot achieve their goals. Giftedness should not be looked upon as a status symbol leading to success. Rather, it should be viewed as a specific and unique learning style. The values and attitudes in families of eminent individuals held high aspirations for their gifted children and spent much time reading, and modeled the need to know [3]. It can be concluded that the intervention of adults makes a difference in the lives of gifted children.

3.5 Asynchronous Learning

Giftedness is a developmental advancement in which an individual demonstrates a highly developed abstract reasoning ability and often exhibits asynchronous learning, a discrepancy between a child's mental and chronological age [4, 5]. An asynchronous learner can be very confusing for everyone. For example, it can be quite difficult for a gifted 9-year old who understands how to solve algebraic equations and reads on the level of 14-year old, but performs at or below grade level in other academic areas. The child probably will not have many classmates to whom they can relate because they are unique individuals. A teacher who lacks awareness and specialized knowledge about asynchronous learning can have a negative impact on the child's education if they do not understand how to nurture a gifted child's development.

3.6 Precocious Behavior

Many gifted children are precocious, which, again, does not endear them to their peers and makes it difficult for them to fit into a group. Characteristics of precocious behavior can be observed in very young gifted children who have received no formal training, yet demonstrate an exceptional ability [6, 7]. Research shows that a major problem for gifted students in school is the mismatch of their rapid learning rate with the pace of most of their classes [8]. It is precisely because of this asynchronous learning pattern that teachers need to watch high ability children for signs of boredom, disengagement, withdrawal, and/or depression that can indicate their feeling of isolation and frustration.

In addition to lacking an understanding for how gifted children learn, another problem in the field of gifted education is that a significant part of the gifted population is consistently underrepresented and underserved. Some categories of children are frequently misunderstood and, thus, frequently misidentified, e.g., 'twice-exceptional,' children who are dually exceptional because they exhibit both advanced ability and a learning difference or disorder. Chap. 4 will present a list of characteristics of giftedness and discuss the concept of twice-exceptionality and its conflicting demands in greater depth.

3.7 Early Intervention

Some gifted students are 'high fliers,' i.e., high achievers. They are self-motivated and undertake challenges to demonstrate their exceptional ability or talent. They are lucky if they have a supportive teacher and/or parent who understands their special

needs and provides them with differentiated opportunities to guide their asynchronous development. These children are prime candidates for early intervention.

If a gifted child says they are bored in the classroom, chances are they are wasting their time. They are not being provided with an appropriate education that interests, challenges and motivates them to want to learn more. In addition to academic needs, a child's social and emotional needs are of equal importance to their development and must also be met for a gifted child to stay motivated to want to learn more.

Every child needs to be challenged and motivated to engage in the learning process so they can fulfill their potential of becoming a productive lifelong learner. Gifted children require a rigorous and challenging curriculum to meet their exceptional needs, which, of course, presents extra work for the teacher. However, in the long run, teachers learn to recognize the importance of teaching each child at their own level of learning.

3.8 Motivation

Even though they might have a greater understanding of a subject, gifted students are not always motivated to share what they know with others. Their motivation can vary even at an early age, which has a stronger effect than later, especially for disadvantaged children [9]. Like any child who does not feel interested in learning, a gifted child can also lose their motivation and, thus, risk becoming an under-achiever [10]. A different kind of teaching is required in which a teacher has an open mind and pays careful attention to the individual needs of each child.

Basically, there are two main types of motivation: (1) Intrinsic (internal) and (2) Extrinsic (external) Motivation. Curious young gifted students illustrate intrinsic motivation when they ask for answers to questions they really want to know, e.g., 'How does a bird fly?' Students who are extrinsically motivated focus on receiving a reward, e.g., earning a high mark in class, winning a competition or earning money. It is important to know which type of motivation works best for an individual to engage them and encourage sustainable learning.

Through observations, research reveals gifted children learn more quickly and easily than their peers [11]. Because of their advanced potential for learning, it is important that schools devise a policy for gifted students to ensure equity of provision throughout the school population [12, 13]. One of the ways to address equity of provision is through 'differentiation,' a process through which teachers systematically gather and use information about their individual students that relate to all aspects of their learning, i.e., interests, readiness, and learning style. Chap. 5 will present more detailed information on motivating gifted children.

3.9 Case Study #1: Betty Bored Beyond Belief

My parents called me Betty Bored Beyond Belief, a name that suited me well. I learned to read at three years old and started school at four. In kindergarten, I raised my hand to let the teacher know when I completed the assignment of writing both the upper and lower case letters of the alphabet. Not only had I completed the work, but I also colored a border of yellow daffodils around the paper.

The teacher looked over my paper quickly. However, instead of being pleased with my work, she appeared to be annoyed. She asked me to write the same assignment on the back of the paper. Disheartened, I wrote the alphabet again. But, this time, I wrote it backwards and reversed each letter, while the rest of the students still completed their work.

In first grade, I enthusiastically waved my hand high up in the air because I already knew the answers to questions the teacher asked. The teacher and all of my classmates looked at me because they knew I had the right answer. But, I raised my hand because I was excited to learn and hoped to share what I knew. I hoped for a chance to be challenged to discuss my ideas.

I felt the teacher didn't like to call on me because she wanted to give the other students a chance to answer questions, too. However, I became disappointed when I wasn't called on in the class, so, I stopped raising my hand. Soon, I no longer cared about school and put very little effort into my work. I became bored and felt sad because I thought school should be a place where I could learn something new!

3.10 Signs of Boredom

Boredom is a 'red flag.' It alerts teachers that a gifted student probably already knows how to do the work and is ready for something harder. If the teacher had recognized and provided feedback and encouragement for Betty's high ability and artistic talent, she could have motivated and challenged her with a harder and more meaningful task. Sadly, the teacher missed an opportunity for a teachable moment, which caused Betty to stop raising her hand and lose interest in learning. The teacher should have been prepared extension work for students who already knew the material and were ready for a challenge.

A Storytelling Jar is an example of an activity designed for children like Betty who complete their work early. The teacher fills a jar with small pieces of papers containing letters of the alphabet or vocabulary words. Students who finish their work early are allowed to select a paper from the jar and then use it to create a drawing or story to share with their classmates. This activity offers students an opportunity to extend their learning by creating a product of their choice for a real audience.

3.11 Differentiation

Differentiation is a pathway to learning in which the content, process, and product accommodate the learner by addressing their learning style and academic, social, and emotional needs. Differentiation happens when teachers are curious and look for ways to vary their teaching strategies, curriculum content, and student products. As teachers, many of us have been in a situation in which a gifted student finishes their work quicker than their classmates and is given ‘busy,’ i.e., repetitious, work to do. Offering more of the same material is neurologically unnecessary and can be counterproductive to learning [14]. Students do not want to do more of the same work because it feels like a punishment instead of a motivational assignment.

Because teachers and parents may feel they are not as smart as a gifted child, it is not uncommon for gifted children to take advantage of the situation and manipulate their environment [15]. Sometimes, gifted children argue that they are bored when they do not want to do an assignment that is not interesting to them. This conflict presents an opportune time for adults to communicate their work expectations to a child as well as discuss the importance of taking responsibility for their own learning.

At first, differentiation may not be easy for a teacher to implement if they have a large class size. However, a teacher can be encouraged by taking ‘baby steps’ to begin the transition from a mainstream to a differentiated classroom environment. By providing for the needs of one student, one group, or one lesson at a time, a teacher will find their way. A classroom that offers Pre-assessment, Flexible Grouping, and Choice as differentiated strategies enable the classroom teacher to challenge gifted and all students with rigorous and more interesting work at various ability levels for learning to take place.

3.12 Intervention Strategies for Teachers and Parents

3 Differentiated Strategies for Early Intervention

1. Use Pre-assessment
2. Create Flexible Groups
3. Offer Choice

1. Use Pre-Assessment

Pre-assessment is a tool used to determine a student’s appropriate level of learning. Pre-assessment results provide information for teachers to differentiate and drive the curriculum. Because many gifted students have done extensive reading on topics that interest them, it is important for teachers to be aware of what students already know before teaching a lesson. To inform teachers of a student’s appropriate level of learning, here are some suggested formal and informal pre-assessment tools that can be used in teaching:

Table 3.1 Formal and/or informal pre-assessment tools

1. Quiz or test—Written or oral
2. Thumbs up/thumbs down—A quick show of ‘Agree’ or ‘Disagree’
3. Concept web—A graphic organizer that shows relationships among connected concepts and ideas using a web
4. KWL—A three columned chart illustrating what a student Knows, Wants to Know and Learned
5. Graphic organizer—A template suited for a specific assignment found on the Internet or teacher-created
6. Entrance or exit cards—Quick, informal written student responses to questions teachers pose at the beginning, middle or end of a lesson
7. Survey or Poll—A questionnaire. Some can be found on the internet, such as the multiple intelligence survey to determine a student’s learning style. Others may be created by student(s) or teacher
8. Ask the student what they know—One-to-one, small or large group discussion

Teachers

Once pre-assessment has taken place, teachers can accurately identify a gifted student’s ability level. Then, the next step can occur to enrich or accelerate the child’s learning so their time is not spent on material already learned.

Through ongoing self-assessment, teachers need to adjust their teaching style and curriculum to reflect the academic learning styles of all students. This can be accomplished by asking for student input and integrating their information into the curriculum. In this way, teachers begin to create a student-centered classroom that nurtures excellence and promotes personal growth for all children. By involving students in the decision-making process of modifying a curriculum and providing a choice of products in the assignments, they become actively engaged in the learning process.

Teachers can provide various choices to empower students, e.g., allowing them to respond to a given number of questions from a larger set. Teachers can ask for student input when creating assignment deadlines or brainstorming additional ideas for projects. Because they contributed to the design of the course, students will most likely assume more responsibility by developing ownership for the assignments.

Parents

Questioning is an effective tool for parents to use. Parents should discuss their gifted child’s early ability to talk, read, and/or walk as it compares to other children of the same age with a pediatrician. Parents need to address expectations of their child’s developmental abilities in order to anticipate and understand their next phase. They need to comprehend how they can nurture their gifted child’s unique development.

If parents feel the need for professional help, they should contact the school guidance counselor for recommendations of a psychologist in the community. Parents can make an appointment for their child to have a formal evaluation. Once they receive the test results, parents should make a copy for the school and keep the original for their personal records. Hopefully, the psychologist will include recommendations for an academic setting and requirements that will address the gifted child's potential and high ability level to promote academic growth.

Equipped with professional test results, parents should then set up a meeting with an administrator at their school district to present the information. Parents should request the development of an IEP (Independent Educational Program) that specifically addresses their child's particular advanced academic needs in a classroom setting.

2. **Create Flexible Groups**

Students need the opportunity to participate in a variety of groups based upon their interests and ability levels. Flexible grouping offers children a chance to work with different classmates throughout the year.

Teachers

All children have the right to learn or think about something new each day, and gifted students are no exception [16]. After pre-assessing a gifted student's interests, ability levels, and learning styles, teachers are now equipped with information needed to create flexible groups in the classroom. In this way, teachers offer the opportunity for children to be grouped with different children at different times throughout the year. A child can experience how they are smart in different ways and will not become stigmatized by being placed in all low-functioning groups if they happen to perform low in one area.

It is critical that teachers also offer gifted students the experience of joining a group with other gifted students. In this way, gifted students are supported in their social development with the opportunity of interacting with like-minded individuals. Gifted children make better social adjustments in schools where they can interact and search for friendships with children who share similar interests, which is referred to as 'finding your tribe' [17]. Finding your tribe creates a circle of influence that validates interaction of students who share a common vision.

Gifted students can also be offered a choice of working on a project individually or in a group. Although many gifted children prefer to work independently, they do appreciate peers who listen and respect their opinion [18]. By making the decision for how they prefer to work on an assignment utilizing their particular learning style or multiple intelligence, students can feel empowered when their voice is heard.

Since Betty already knew the material that was taught, it is possible that other students also knew it and were discouraged from raising their hands as well. By

creating flexible groups, gifted students can be placed with others of similar ability, interest, choice, and/or learning style. Because of the possibility to move from one group to another, students will not feel they are ‘stuck’ in a particular group and stigmatized as being ‘smart’ or ‘dumb.’ Flexible grouping offers students a chance to learn from a variety of students in the classroom who are smart in different ways.

Parents

Parents shoulder the responsibility to locate and provide playmates of various ages for their gifted child. By exposing them to enrichment activities based upon their interests and abilities outside of the home and school, a gifted child will gain positive learning experiences not afforded in the regular classroom. This exposure to a larger world can help a gifted child to find their ‘tribe’ and develop friendships with like-minded children.

3. Offer Choice

It does not matter what airline a passenger chooses to travel or what topic a gifted student finds to be intriguing. Both like to have a choice!

Teachers

Teachers need to provide and empower gifted and all students with choice. When culminating a unit of study, a teacher can frame the concluding remarks by asking essential open-ended questions to encourage thinking. The teacher can then offer students choice by creating a broad list of products to show what they have learned throughout the course. Asking students to add at least five different ideas to the list will generate a new list of products that reflects their interests. By contributing their ideas, students become empowered. Thus, they are more likely to assume ownership for the assignment through actively engaging in the learning process.

To further challenge and offer choice, the teacher can ask students to narrow down the brainstormed list to what they consider to be the five most interesting products. After giving time for reflection, the teacher should ask students to decide upon one product that interests them the most. The decision can be made in a variety of ways, including elimination by identifying the least to the most favorite product. Finally, the teacher should request that students connect their selected product to a real life situation and an authentic audience, e.g., the product of ‘An Excel Spreadsheet of Numbers’ can be used to create a budget to plan a classroom party. By using the student’s information to actually plan for and create a classroom party, meaningful learning will occur. In this way, learning can also be fun!

Parents

Early on, parents need to be respectful of their gifted child as an individual and offer choice. When creating and presenting a choice between two or three options, parents empower their child to think independently, make decisions that

reflect their logic and assume responsibility for their selection. Parents find offering a child choice can defuse temper tantrums, especially for toddlers who are not able to fully communicate their needs.

Early identification is an important intervention strategy to promote the development of high potential in gifted children. Although gifted children can be assessed at any age, many researchers agree that early identification is best. The ages of five to eight appear to be an ideal time for testing to find out if a child is gifted. By the age of nine, highly gifted children may have already ‘hit the test ceiling’ (reached the highest achievement possible) for their age group. Teachers and parents need to be aware that a gender difference does exist in gifted children. Gifted girls may already be socialized by the age of nine and try to hide their exceptional abilities in order to not be noticed [1].

As girls develop and become tuned in to social cues, they may, for example, become more interested in talking on the phone to a friend than risk being perceived as different and called a ‘nerd’ or ‘geek.’ Therefore, because each gifted child is unique, parents need to understand their child’s social and emotional needs to help get through tough times, especially during adolescence. Parents need to examine and understand what their child is capable of achieving and offer them opportunities to develop their interests and potential. Consequently, just like one airline does not meet the requirements of everyone, the ‘One size fits all’ model does not fit any child, including the gifted.

References

1. Silverman, L. K. (2007). What is giftedness? [Online], http://www.gifteddevelopment.com/What_is_Gifted/whatis.htm. Accessed on March 23, 2009.
2. Webb, J. T., et al. (2005). *Misdiagnosis and dual diagnoses of gifted children and adults: ADHD, bipolar, OCD, Asperger’s, depression, and other disorders*. Arizona: Great Potential Press.
3. Goertzel et al. (1978). Three hundred eminent personalities, San Francisco: Jossey-Bass as cited. In L. Silverman and K. Kearney (Eds.), (1989) *Parents of the extraordinary gifted*. [Online], http://www.hoagiesgifted.org/parents_of_eg.htm. Accessed on June 9, 2016.
4. Waxman, B., Robinson, N. M., & Mukhopadhyay, S. (1996). *Teachers nurturing math-talented young students* (RM96230). Storrs, CT: University of Connecticut, the National Research Center on the Gifted and Talented.
5. Silverman, L. K. (1989). Invisible gifts, invisible handicaps. *Roeper Review*, 12, 37–42.
6. Alvino, J. (1995). *Considerations and Strategies for Parenting the Gifted Student*. Storrs, CT: University of Connecticut, the National Research Center on the Gifted and Talented.
7. Jackson, N. E., & Roller, C. M. (1993). *Reading with young students* (RBDM 9302). Storrs, CT: University of Connecticut, the National Research Center on the Gifted and Talented.
8. Robinson, N. M. and Noble, D. D. (1992). Social-emotional development and adjustment of gifted students. In M. Wang, M. Reynolds & H. Walberg (Eds.), *Handbook of special education. Research and practice* (Vol. 4). Oxford: Pergamon Press, pp. 57–76.

9. Koshy, V. (2009). Too long neglected: Giftedness in younger children. In T. Balchin et al. (Eds.), (2009). *The Routledge international companion to gifted education*. London: Routledge.
10. Siegle, D. (2012). *The underachieving gifted child: Recognizing, understanding, and reversing underachievement*. Waco, Texas: Prufrock Press.
11. Clark, B. (1997). *Growing up gifted*. New York: Prentice Hall.
12. George, D. (1997). *The challenge of the able child*. London: David Fulton Publishers.
13. Dean, G. (2001). *Challenging the more able language user*. London: David Fulton Publishers.
14. Geake, J., & Vialle, W. (2002). Looking forward: The future of gifted education research. In W. Vialle & J. G. Geake (Eds.), (2002) *The gifted enigma*. Australia: Hawker Brownlow Education, pp. 313–318.
15. Winner, E. (1996). *Gifted Students: Myths and Realities*. New York: Basic Books.
16. Siegle, D. (2009). NAGC. [Online]. <http://www.nagc.org>. Accessed on April 23, 2012.
17. Robinson, K., & Aronica, L. (2009). *The Element*. London: Penguin Books.
18. Silverman, L. K. (1992, October). Gifted students talk about cooperative learning. *Education Leadership*, 50(2).

Part II Preparing for Departure



Chapter 4

Identifying an Itinerary: Distinguishing Between Bright and Gifted Children

Our kids are normal. They just aren't typical.

—Jim Delisle (Teacher of gifted children). [Online],
<https://rochestersage.org/2011/09/28/what-are-characteristics-of-a-gifted-child>, as accessed on 9/6/16.

Abstract Similar to preparing for a journey, teachers need to acquire information on the characteristics of giftedness and look for signs of giftedness in all students. Because the potential for giftedness can be exhibited in different ways, teachers need to be aware of underserved populations who may not have had an opportunity to demonstrate their giftedness. Once an individual has been identified as gifted, teachers need to know how to meet the particular academic, social, and emotional needs in various ways to address their various learning styles. Chapter 4 shares the case study of a twice-exceptional learner who received a diagnosis of both giftedness and a learning disability. Intervention strategies are offered for teachers and parents that focus on recognizing the whole child by sharing their objective, helping the child to get and stay organized, recognizing effort, and locating support groups.

Keywords Bright children · Change perspective · Gifted characteristics · Organize · Misunderstood · Perceive differences · Recognize effort · Share objectives · Support groups · Twice-exceptional

4.1 Gathering Information

When deciding upon the destination for a trip, you need information that will lead you in the right direction. Determining the cost, location, and recreation activities for traveling with or without your friends or family members can influence your selection. You also will need to confirm reservations. Similar to preparing for a trip, teachers need to acquire information on the characteristics of giftedness to prepare them for accurately identifying gifted learners.

It is important to look for characteristics of giftedness in all students and be mindful that high potential can exist in various areas. Teachers need to be sure to not overlook minority students, who may not have had an opportunity to

demonstrate their giftedness. Currently, little educational literature is available to intervene on behalf of African American, Latino, and other culturally diverse gifted individuals. Subsequently, there is a scarcity of representation, inclusiveness, and economic opportunity available for these underrepresented populations. To counteract this scarcity, Scott-Carrol and Sparks (2016) published narratives and interviews that offer personalized perspectives of culturally diverse gifted adults on growing up as gifted children, which can be insightful for teachers and parents for early-on identification [1].

Once an individual has been identified with high potential, making adjustments to increase the number of minority students in the group of gifted candidates is only the beginning of ensuring their appropriate education [2]. Teachers need to know how to meet their particular academic, social, and emotional needs in various ways to address a variety of learning styles.

Understanding that high potential is innate in gifted students, whereas ability in bright students results from the training they receive, can guide a teacher and parent in the right direction. Subsequently, a teacher can assess a student’s areas of strength(s) for certain characteristics that reflect their intellectual level. Following is a table of commonly agreed upon characteristics of giftedness [3]: (Table 4.1).

Table 4.1 Characteristics of giftedness [3]

• Unusual alertness, even in infancy
• Rapid learner; puts thoughts together quickly
• Excellent memory
• Unusually large vocabulary and complex sentence structure for age
• Advanced comprehension of word nuances, metaphors and abstract ideas
• Enjoys solving problems, especially with numbers and puzzles
• Often self-taught reading and writing skills as preschooler
• Deep, intense feelings and reactions
• Highly sensitive
• Thinking is abstract, complex, logical, and insightful
• Idealism and sense of justice at early age
• Concern with social and political issues and injustices
• Longer attention span and intense concentration
• Preoccupied with own thoughts—daydreamer
• Learns basic skills quickly and with little practice
• Asks probing questions
• Wide range of interests (or extreme focus in one area)
• Highly developed curiosity
• Interest in experimenting and doing things differently
• Puts idea or things together that are not typical
• Keen and/or unusual sense of humor
• Desire to organize people/things through games or complex schemas
• Vivid imaginations (and imaginary playmates when in preschool)

Although it is important for teachers to make adjustments for gifted children in the classroom, making academic adjustments can compromise standards and be unfair to those students who meet the traditional criteria. Therefore, several options need to be proposed and pursued. Gifted identification assessment tools must reflect different learning styles so various characteristics of giftedness can be correctly diagnosed. By using a variety of tools, teachers and parents can inspire gifted students to demonstrate a variety of ways in which they can successfully perform.

Did you know gifted students learn at different rates and have a range of ability levels as defined by an IQ score? Mildly, moderately, highly, and profoundly gifted students are as different from each other as mildly, moderately, severely, and profoundly special needs students. Teachers and parents are rarely aware of the variances that exist among the five levels of giftedness. However, if they are mindful that these differences do exist, they will become more conscientious of what they say and do to nurture a gifted child's development at an appropriate ability level.

4.2 Change in Perspective

Once seated in the plane, your perspective changes as you experience a different environment. The pilot is in control of the flight, while the flight attendants attend to your special needs. In response to a flight attendant's request to fasten your seatbelt and listen to safety rules, you cooperate with the rules laid out to ensure a safe flight.

Gifted children also gain a new perspective when they experience a student-centered classroom where they can offer input and participate in the decision-making of how and what they learn. Feeling empowered encourages children to become motivated, and, therefore, they are more likely to take intellectual risks. Without the fear of being ridiculed or a fear of failure, gifted children are encouraged to take intellectual risks that stretch their thinking in unique and creative ways.

To nurture the development of a gifted child, a teacher needs to optimize learning conditions by creating a safe environment that encourages curious young minds to explore. As authority figures, teachers should model their approval of students who think in different ways by inspiring creativity and searching for many answers to a problem. Students can then learn to appreciate and respect differences in other. They will be encouraged to grow in confidence and become comfortable to share their ideas, especially when they differ than those of their classmates.

It is inevitable that some students' responses will be viewed as 'wrong.' However, 'wrong' answers can be used as a valuable teaching tool for teachers to address and discuss misconceptions. Students need to accept that making a mistake is a natural and integral part of the learning process. When questioned about his invention of the light bulb, Thomas Edison stated that he had not failed, but just found 10,000 ways that would not work. He was not discouraged because every wrong attempt discarded was another step forward [4].

4.3 Recognition

It is easy to recognize flight attendants on an aircraft because they wear an airline uniform. On the contrary, it can be tricky to recognize gifted children because they do not all look or act alike. Teachers need to have an open mind when they think about which students might qualify as ‘gifted.’ They need to consider girls as well as boys. Many times, gifted children are not the ‘teacher-pleasers’ in the classroom. They may not always cooperate with authority figures or work well with their peers. Because they may not adhere to the expectations a teacher has for what a gifted student should be like, a teacher can easily misjudge a child.

4.4 Detection

Have you ever made the mistake of pulling someone else’s suitcase off of the luggage belt in an airport because you were in a hurry and thought it was yours? At first, it may have looked like your black suitcase, but, upon taking a closer look, you noticed it was different. In hindsight, a colorful strap or a special tag could have helped to quickly identify your suitcase from the others and would have prevented the problem of mistaken identity.

Similar to mistaking the common black suitcase, teachers can experience confusion when discerning between a ‘bright’ and a ‘gifted’ student in the classroom. Some teachers think gifted students are obvious to spot because they stand out among their peers. However, other gifted students may not be so easy to identify.

It can be difficult to identify gifted children who are underachievers or twice-exceptional, those who demonstrate a learning disability as well as giftedness. Some gifted children may not be recognized by teachers or parents for their potential of a high ability level. Therefore, it is possible for them to miss out on being accurately identified as gifted. Consequently, these gifted individuals may not be offered the appropriate opportunities required to extend their learning to reach their full potential. Because the upper limits of intelligence are yet to be defined, teachers and parents need to challenge all children, including the gifted, to ‘soar’ as high as they can.

Upon deliberating whether or not a child is gifted, teachers cannot operate on ‘automatic pilot.’ They must think carefully about the whole child, considering their social and emotional, as well as academic, needs. No-one wants to neglect identifying a child who is gifted but ‘falls under the radar’ because they are not readily recognizable. Likewise, no one wants to mistakenly label a child as ‘gifted’ if they are not gifted. Both present a great disservice to a child.

4.5 Perceiving Differences

It can be difficult for a teacher to distinguish between a bright and a gifted student, especially if ‘high achievement’ and ‘intellectual giftedness’ are used interchangeably. Both terms indicate individuals who have the potential to achieve and perform at a level that is above the general population. However, the gifted learner exceeds the high achiever in categories of performance, understanding as well as in levels of abstraction, individuality, intensity, and creativity. The high achiever is more socially acceptable by peers and society, and because the gifted are more extreme, gifted children are less likely to be understood and more apt to be excluded [5].

If teachers understand and value the kind of behavior gifted children demonstrate of outstanding levels of aptitude and an exceptional ability to reason, learn and achieve or perform in top 10% or rarer in one or more domains, they can encourage the same qualities to in all children. This underlying concept is supported in the High Performance Learning Framework (see Chap. 2: 23–24).

The following ‘Bright versus Gifted Students’ chart is a valuable tool for teachers to share with parents, guidance counselors, administrators, and policy-makers during the gifted identification process that helps to articulate the characteristics of giftedness. This chart can help adults to more clearly understand and accept the unique characteristics of gifted children and ways in which they differ from bright peers [6] (Table 4.2).

Table 4.2 Bright versus gifted students [6]

Bright versus gifted students	
Bright students	Gifted students
Knows the answers	Asks the questions
Is interested	Is highly curious
Is attentive	Is mentally and physically involved
Has good ideas	Has wild, silly ideas
Works hard	Plays around, yet tests well
Answers the questions	Discusses in detail, elaborates
Top group	Beyond the group
Listens with interest	Shows strong feelings and opinions
Learns with ease	Already knows
6–8 Repetitions	1–2 Repetitions for mastery
Understands ideas	Constructs abstractions
Enjoys peers	Prefers adults
Grasps the meaning	Draws inferences
Completes assignments	Initiates projects
Is receptive	Is intense
Copies accurately	Creates a new design
Enjoys school	Enjoys learning
Absorbs information	Manipulates information
Technician	Inventor
Good memorizer	Good guesser
Enjoys straightforward, sequential presentation	Thrives on complexity
Is alert	Is keenly observant
Is pleased with own learning	Is highly self-critical

Overall, a bright student is taught curricular content to achieve a high mark on a test, which is learned through repetitive practice. Bright students are teacher-pleasers because they study, do their school work, and achieve good grades. However, many bright students do not demonstrate a higher level of critical analysis and creative thinking. Generally, they are satisfied with the status quo and do not challenge their teachers with philosophical arguments that push the boundaries.

On the other hand, a gifted student exhibits an innate potential for demonstrating an unusually high level of academic achievement or talent performance that has not been intentionally taught. A gifted student may be argumentative and express strong feelings and opinions. These qualities may dissuade a teacher from believing a child is gifted if they are expecting a teacher-pleaser, someone who fits their ideal for how a highly intelligent child should behave.

4.6 Often Misunderstood

Because giftedness is not always well understood, it is not surprising that gifted children are often misunderstood [7]. According to Whitmore and Maker (1985), intellectually gifted children who exhibit specific learning disabilities are misunderstood because their weaknesses outweigh their areas of strengths in the eyes of teachers, school counselors, and other adults [8]. Every gifted child is unique and requires attention be paid to their particular learning needs. When viewing an individual as a whole child, teachers and parents need to examine and address areas of both strength and weakness. It is important to understand whether a child is a highly gifted individual or a well-trained one to determine if a child is truly gifted or not [9].

4.7 Achievement

All aircraft operate at an altitude or flight level that is appropriate for their class. Their mantra is to fly ‘as high as possible, as fast as possible.’ Like a part of the aircraft, a gifted student should not be expected to perform at levels beyond their capabilities. Because a gifted student has their own strengths and weaknesses, their performance or achievement will vary.

Teachers and parents must recognize the importance of advocating early on in the life of a gifted child. Like any child, a gifted child needs encouragement coupled with a supportive environment to succeed. Advocacy is critical, so a gifted child can grow to fulfill their full potential. It is a myth to believe a gifted individual can succeed without support from adults in their life. Teachers can offer support to the gifted by communicating high expectations for academic excellence, while

remaining mindful of their special needs. They should not expect a gifted child to always outperform their peers just because they are labeled as gifted.

4.8 Twice-Exceptional Gifted

Children can be identified as gifted when they demonstrate evidence of intellectual strength in one or more areas and neurodiversity that are above and beyond that of their peers. Children who demonstrate high ability, yet, also have a learning disability, are considered to be ‘twice-exceptional’ [10, 11]. These children are also referred to as ‘2e,’ or ‘dual-exceptional.’ It is common for twice-exceptional children to be easily overlooked in the classroom if they perform below their potential in one or more areas. Sadly, it is common for teachers to focus on the discrepancy between performance and ability and to not recognize gifted characteristics. When working with a dually diagnosed child, many teachers and parents fail to honor and address the giftedness component because of focusing on their disability.

4.9 Case Study #2: Tomas Twice-Exceptional

My name is Tomas Twice-Exceptional. My IQ is 150. I was placed in advanced classes in school because I learn new information quickly and easily, and have a phenomenal memory. However, I was also diagnosed with dyslexia, which causes me to underachieve. Although I am quite articulate, I have difficulty writing down my thoughts on paper and staying focused. I am often bored and like to daydream. Sometimes, my teacher catches me when I am not paying attention because my mind wanders off to think about other things. For instance, I really worry about terrorism in the world. What could I do if a terrorist strikes our movie theatre or shopping center? I find myself watching the news channel on television to learn what is going on in the world because I have difficulty reading the information in newspapers or online.

In addition to dyslexia, I also have been diagnosed with OCD (Obsessive Compulsive Disorder). I struggle each day to become organized for class. First, I need to make sure my pencils and pens are all lined up on the upper right side of my desk before I can begin my work. You see, each pencil or pen represents someone in my family. Thoughts fly through my head about one of them dying if the pencils and pens are not exactly lined up.

Next, I need to walk by the classroom window and look outside to see if it might rain. I touch a certain part of the window to be sure everything will be okay. After this ritual, I can return to my desk to begin my work. However, when working to solve a problem, I overanalyse it and keep thinking of different solutions. I really need more time because I want to complete my assignments and tests!

4.10 Supporting Giftedness

Teachers need to become familiar with the list of characteristics found in Chap. 4 that imply giftedness so they can look for ways in which all children are smart. It is their responsibility to also become knowledgeable of the struggles a twice-exceptional child faces. They must also become informed of areas in which a gifted child can receive a second diagnosis to qualify them as twice-exceptional. Here is an abbreviated list of diagnoses

- *Attention Deficit Hyperactivity Disorder (ADHD)*—Hyperactivity and impulsivity
- *Dyslexic/Dysgraphia/Dyscalculia*—Learning disability
- *Central Auditory Processing Disorder (CAPD)*—Auditory processing disorder
- *Obsessive Compulsive (OCD)*—Anxiety disorder
- *Oppositional Defiant (ODD)*—Defiant behavior
- *Asperger Syndrome (ASD)*—Social disability
- *Autism*—Brain disorder difficulty in social interaction, verbal and nonverbal communication, repetitive behavior.

It is not unusual for gifted children with disabilities to struggle socially and experience emotional outbursts over seemingly minor issues, or become obsessed with an all-consuming focus. Sadly, because some negative traits, e.g., distractible behavior, may be more compelling, an incorrect diagnosis can be made. Because giftedness can exist simultaneously with a learning disability, it is important to remember to teach to the needs of the whole child.

Unfortunately, the vast majority of gifted dyslexic students is still unidentified in the classroom and do not receive appropriate provisions [12]. Because gifted children are included in the category of exceptional learners, they can become at risk of not having their needs met at school [13]. Therefore, it is understandable that simply labeling a student as ‘gifted’ is not enough. An action-based plan must be designed to nurture and provide for the individual child’s abilities and talents to keep them motivated and engaged in active learning.

It is critical to view ‘giftedness’ through a multi-perspective lens to dispel any stereotypes of what is meant to be gifted. As understanding of the whole child develops, teachers and parents must reflect and rely on what they know about giftedness to identify children who fit this description. Acceptance of the individual based upon an accurate identification, and not misidentification, is the first step in the gifted identification process!

4.11 Intervention Strategies for Teachers and Parents

4 Strategies for Twice-Exceptional Children

1. Share Your Objective
2. Help Child Get and Stay Organized
3. Recognize Effort
4. Locate Support Groups

1. Share Your Objective

Once onboard the plane, you match your ticket information to the corresponding seat number. The pocket attached to the back of the seat in front of you holds a variety of useful items for your flight. Similarly, in Your Passport to Gifted Education, some useful intervention strategies are provided to enhance your understanding and to clarify your expectations of gifted children.

Just as you reset the time on a wristwatch when arriving in a different time zone, teachers and parents also need to make adjustments for working with twice-exceptional children. By implementing strategies to help a gifted child with self-efficacy and self-regulation, teachers and parents can support their academic success. These strategies can be used as effective educational practices for *all* children!

Teachers

Teachers need to post the objective of each lesson on a whiteboard or chalkboard in the classroom every day. An explanation of the objective would provide a clear understanding for twice-exceptional (and all) students. Twice-exceptional students would especially benefit from this strategy because it would help them to understand the relevance of content presented and to know what is expected of them.

Asking twice-exceptional students to write a personal objective for what they want to accomplish each day is another good strategy. Students will commit more readily to work they can accomplish if they can envision how they can achieve success. By including interest and choice in creating a personal objective, students can become active learners by engaging in their own learning process.

Parents

Parents should set up and commit to a scheduled time and place each day to discuss their twice-exceptional child's homework assignments. Parents need to stay informed about assignments and teacher expectations in all subject areas. If any assignments are missing, the parent should intervene and help their child catch up. Through e-mails, phone calls, or notes in the child's assignment notebook, a parent and teacher can collaborate to keep a child on track. Creating a chart to map out progress is a helpful way for parents and their child to refer to

a visual representation of the child's accomplishments. Developing a habit of marking off completed assignments encourages a child to take pride in what they have accomplished.

2. **Help Child Get and Stay Organized**

Getting and staying organized can be particularly problematic for a twice-exceptional child. A twice-exceptional child needs to know how they are performing in the curriculum as compared to the level at which they are expected to function.

Teachers

Teachers need to take action when they notice a student is underachieving. Trying to understand what is going on by talking with the child is a good place to begin. Many teachers find it helpful to require a child to keep different colored folders for each subject, including a calendars of deadlines. In this way, students can track assignments in their three-ring notebook binders or electronic devices to stay organized. Requiring the child to chart their progress in various academic areas can build awareness in a twice-exceptional child. Assisting them by organizing their notebooks together each day is key for twice-exceptional children to get and stay organized.

Color-coded folders are especially effective for visual learners. Maintaining an electronic or physical portfolio is a great tool for students to gauge and record their academic growth. In addition, it presents an opportunity for students and parents to discuss and reflect upon the child's effort and academic progress. Maintaining a portfolio of the student's purposefully selected assignments will capture their progress and serve to assess growth over a given period of time. Portfolios can include recordings, videotaping, artwork, writing, graphs, etc., to reflect various learning styles and interests.

Once students use the executive function of their brain to stay and become organized, students and teachers should meet with them on an individual basis for a few minutes every day to check on assignments, deadlines, and special notices. In this way, problems or misunderstandings can be addressed immediately. Twice-exceptional students can then understand and show what they know and what they are capable of accomplishing.

Parents

It is important for parents to support a teachers' efforts at home by reinforcing the same monitoring system used by the school for helping their twice-exceptional child to get and stay organized. Meeting on a daily basis with their child to check their notebook, grades, and assignments is a good opportunity to help a child to organize and study for upcoming quizzes, tests, and projects. It is also helpful to work with their child to eliminate clutter by throwing out unneeded papers in the notebook or unwanted files in a folder.

It can be very helpful for parents to designate a study area in the home that displays a calendar of assignment deadlines. Some children also benefit from

having a clock available in the room so they can gauge their snack or break time. Children pay closer attention to working on their class assignments at home when parents are present and monitor their work on a consistent, ongoing basis.

3. **Recognize Effort**

Although learning comes easily for gifted children, twice-exceptional children can experience a struggle in the area of their disability, which creates a dilemma. This can produce low self-esteem if they do not understand the importance of effort needed in their work. Teachers and parents need to recognize and value the child's effort in relationship to the work they accomplished. Twice-exceptional children need to gain confidence in what they know and how they can apply what they know. They need encouragement to solve harder problems that will stretch their thinking and help them acquire a repertoire of strategies for attacking a problem.

Teachers

Teachers need to help twice-exceptional students discover how they learn best. Learning does not and should not always come easily for gifted children. If it does, gifted children can fall into the trap of 'learned helplessness.' Gifted children should be encouraged to seek out others who can help them and discuss strategies they used to solve a problem. It is also valuable for them to take time for reflection and think about different strategies they could try the next time that might prove to be a better option.

Learning occurs all throughout our life. If a gifted child struggles to learn something new, it means they are *learning* something *new*. Struggle can be a good learning opportunity if it does not overwhelm the twice-exceptional child who already faces challenges. Twice-exceptional children can truly benefit from being presented with rigorous tasks that encourage them to work harder and learn outside their comfort zone if they have adult advocates who understand and support their learning experience.

Parents

Developing a 'growth mindset' in children creates a feeling of self-confidence, a 'can do' attitude [14]. Parents need to work with their twice-exceptional children on obstacles that block their way in order to become successful. They can do this by becoming aware of certain triggers children are experiencing. Specific trigger warnings include anxiety, feelings of defeat or incompetence, defensiveness or anger. When experiencing these trigger warnings, it is important to offset a gifted child's fixed mindset by providing insight and understanding as to what is happening and why.

A 'think aloud' activity can be a good learning tool for twice-exceptional children. Twice-exceptional children need to conceptualize and think about the material they are about to learn before they are ready to discuss details after reading a text. This allows time for children to make predictions about what they are going to read. In this way, a twice-exceptional gifted child learns to not merely rely on their innate intelligence, but to value skills that enhance their performance when analyzing future problems. By designing learning

opportunities for twice-exceptional to apply their cognitive and metacognitive strategies, teachers and parents help them to experience greater success in areas of their disability.

4. Locate Support Groups

Teachers and Parents

Twice-exceptional children need support from positive-thinking adults who can help them to achieve their goals. Talents and areas of strength should be leveraged to promote success in twice-exceptional learners. It is important for the twice-exceptional children to know they are not alone. They need to know who they can turn to and where they can get help to build their confidence. Twice-exceptional individuals need help to live a balanced and realistic life so they can perceive challenges as chances to learn important life lessons [15]. They need help with social skills so they can pick up on cues. Talking to twice-exceptional children before they attend a social event will help prepare them to grasp the social dynamics. Discussing what happened afterwards will provide them with insight into their behavior. Offering reassurance and reflecting on both positive and challenging situations can help twice-exceptional children to develop.

Teachers and parents can be supported in their efforts of working with twice-exceptional children through a vast array of resources available to them. They can participate in social networking and interact with other adults to share experiences, materials, and suggestions for working with gifted children (see Resource Directory).

References

1. Scott-Carrol, J. M., & Sparks, A. (Eds.). (2016). *Running the long race in gifted education*. WA: Book Publishers Network.
2. Matthews, D. J., & Foster, J. F. (2005). *Being smart about gifted students*. Arizona: Great Potential Press.
3. Webb, J. T. et al. (2007). *A parent's guide to gifted children*. Arizona: Great Potential Press, pp. 11–12.
4. WordPress (7/31/12). *Quote Investigator*. [Online], <http://quoteinvestigator.com/2012/07/31/edison-lot-results>. Accessed on March 5, 2014.
5. Persson, R.S. (2015). Through the looking glass. In R. Klingner (Ed.), *Make them shine*. Germany: Lit Verlag.
6. Szabos, J. (1989). *Challenge magazine*. Good apple, Inc., Issue 34.
7. Gross, M. U. M. (2003). "Play Partner" or "Sure Shelter:" What gifted students look for in friends. *The SENG Newsletter*, 2(2), 72.
8. Whitmore, J., & Maker, J. (1985). *Intellectual giftedness in disabled persons*. Rockville, MD: Aspen.
9. Ziegler, A., & Heller, K.A. as cited In K.A. Heller, F.J. Monks, R.J. Sternberg and R.F. Ziegler, A., Dresel, M., & Schoher, B. (2000). *Underachievement diagnose: ein Modell zur Diagnose partieller Lernbeeinträchtigung (Identifying underachievers: A diagnostic model). Begabungesdiagnostik in der schul- und Erziehungsberatung (2nd Ed.)*. Bern: Huber, pp. 259–278.

10. Baum, S. M., & Reis, S. M. (2004). *Twice-exceptional and special populations of gifted students (Essential readings in gifted education series)*. CA: Corwin Press.
11. Rogers, K. B. (2002). *Re-forming gifted education, matching the program to the student*. Arizona: Great Potential Press.
12. Stopper, M. J. (2001). *Meeting the social and emotional needs of gifted and talented students*. London: NACE/Fulton Publication.
13. Bishop, K. et al. (2010). *Exceptional needs standards* (2nd Ed.). National Board for Professional Teaching Standards (NBPTS). VA: National Board Certification for Teachers.
14. Dweck, C.S. (September 2010). Even geniuses work hard. *Educational Leadership*, 68(1), 16–20.
15. Quamina, J. (2016). British, gifted, and disabled: A personal narrative of discovery and acceptance, as cited In Scott-Carrol, J.M, & Sparks, A. (Eds.). *Running the long race in gifted education*. WA: Book Publishers Network.

Chapter 5

Encouraging Frequent Fliers: Motivating Gifted Students

*What happens to the rat that stops running the maze?
The doctors think it's dumb when it's just disappointed.*
—Mark Eitzel (Musician). [Online], <http://thesunmagazine.org/issues/473/sunbeams>, as accessed on 9/6/16.

Abstract Airline companies commonly offer incentives to entice passengers to fly with them again. Teachers also find the need to motivate gifted students to stay engaged and nurture their desire to want to learn more. Because every gifted individual thinks and behaves differently, teachers need to have a repertoire of different approaches based upon the individual's interests, abilities, and learning styles. It is essential for teachers to facilitate instruction in an interesting way and at an appropriate level to address the needs of various kinds of learners. This chapter uncovers hidden talent in a case study student and provides the gifted individual with an appropriate learning opportunity that is made available to all interested students. The case study is followed by intervention strategies for teachers and parents that focus on teaching to the individual, not the curriculum. The benefits of matching a gifted child with a mentor and setting a motivational trap are discussed to promote meaningful educational experiences.

Keywords Bright versus gifted · Hidden talent · Mentorships · Motivation busters · Motivational trap · Multiple intelligences · Recognize individual · Underachievement · Value effort · Value struggle

5.1 Offering an Incentive

Airline companies commonly offer passengers incentives for a free upgrade or additional air miles toward their next flight. Sometimes they offer a bundled package that includes reduced prices for hotels and rental cars. Because research reveals what their customers want, airlines are willing to provide these options to entice passengers to fly with them again.

Teachers also find the need to entice gifted students by inspiring them to stay engaged and learn more. Because every gifted student thinks and behaves differently, teachers need different motivational approaches based upon an individual's interests, abilities, and learning styles. When a gifted student does not show interest or find relevance in what they are learning, they can become frustrated and bored, which can lead to withdrawal, rebellious opposition, or aggressive rejection [1]. To captivate their attention and foster learning, it is essential for a teacher to share their own passion for a topic and present the content in an interesting way and at an appropriate level.

Gifted children do not want to be offered more of the same. It presents a problem for gifted children when they do not find classes to be interesting or taught at a challenging level. If a gifted child has already mastered a concept or skill, giving a gifted student more of the same work for additional practice is a disservice to them. A gifted student will not be motivated to relearn what they have already easily learned [2, 3].

A gifted student needs to be presented with lessons that differentiate content, process, and product. Every lesson must offer something new and include real-world connections for meaningful learning to occur. Although there is a need to understand content, there is an even greater need for a gifted individual to develop new skills and strategies for locating resources, assessing value, and applying knowledge to futuristic problem-solving situations. Learning should be an engaging and relevant experience!

The lack of motivation to learn is a reason why as many as 20% of gifted students drop out of school [4]. Albert Einstein is an example of a gifted individual who was a good student, but did not like school because he thought it was too strict. At the age of 15, he dropped out after his first year of high school. Einstein performed well in math and physics, but not in literature and French. It is said that Einstein preferred learning outside the classroom [5]. To avoid this potential problem in gifted children, intervention may be required from a school's guidance counselor and/or psychologist that supports their social and emotional development.

Thus, it is important for adults to understand the needs of the whole child. Teachers need to nurture the academic, social, and emotional development by presenting a gifted child with opportunities to work at their own pace and in their preferred learning style. By matching a student's learning style with the way that the material is taught, teachers can help gifted students to become successful learners [6]. Matching the curriculum to the child can produce a more engaged learner who will not 'fall through the cracks.'

5.2 The World Is No Longer Flat

When gazing out of an airplane window at the land below, we know the world is not flat. 'Knowledge is everything' is a belief that no longer holds true. Learning something for the sake of knowledge does not equip students with skills they will

need in the twenty-first century. More than ever before, students need to be open-minded to prepare for the unknown and ready to employ various skills to work with people of various cultures to create new solutions for the future.

Without a doubt, schools have changed, and the way students learn has also changed. This revolution in learning is a driving force that impacts the role of teacher. A teacher is no longer a dispenser of knowledge who encourages rote memory. Today, a teacher is one who facilitates knowledge and coaches individuals to achieve success. In this capacity, a teacher needs to explain to the student what they are doing correctly and where they need to make corrections. This kind of feedback serves to motivate achievement in students for their next level of learning. A teacher needs to model higher order questioning techniques and explore various perspectives of thinking that encourage the development of many different pathways to learning and problem-solving. Adapting this flexible approach empowers students to share in the responsibility for their own learning and to understand there may not always be one correct answer for a problem.

5.3 Recognizing Signs of Early Arrival

When the end of the flight is near, passengers recognize various signs that signify arrival at their destination. The flight attendant walks down the aisle providing paperwork for passengers to earn additional air miles when flying with the airline again. Passengers are requested to place their trays up on the seat in front of them and put their seats in an upright position for landing. An announcement informs everyone to store all personal belongings in the overhead compartments or under their seats. Like these cues that passengers receive when the flight crew prepares for landing, teachers need to recognize signs for how gifted children learn best.

5.4 Learning Styles and Multiple Intelligences

You may be familiar with Gardner's Theory of Multiple Intelligences (1999) in which various learning styles are listed, some of which are dominant and others are dormant [7]:

1. Visual-spatial
2. Bodily-kinaesthetic
3. Musical-artistic
4. Interpersonal
5. Intrapersonal
6. Linguistic
7. Logical-mathematical.

Gardner's list of intelligences continues to grow over the years as he identifies additional areas in which individuals exhibit their intelligences. Through awareness, teachers can design a better fit for gifted students and the curriculum based upon their different learning styles at different times or under different circumstances. As a word of caution, it should not be perceived that a child has only one learning style. Learning styles can vary dependent upon a child's changing interests, abilities, and experiences that develop throughout their lifetime. Because a student can demonstrate various learning styles throughout their lifetime, teachers need to be flexible by offering different options for gifted students to demonstrate what they have learned. An individual is not limited to one learning style.

When designing an interdisciplinary unit of study focused on the Olympic Games, a teacher can motivate students by offering choices to apply their knowledge through their preferred learning styles. A visual learner can write an imaginary interview with Jesse Owens, African-American track and field star winner of four gold medals at the 1936 Berlin Summer Olympics that was attended by Adolf Hitler [8]. A kinaesthetic learner can identify various muscle groups involved in the different Olympic sports and discuss corresponding exercises required for the athletes. Offering choice is a powerful strategy. When presented with an opportunity to select a topic that interests and motivates them, chances are greater that gifted students will become successful learners when engaging in areas of their strength.

Teachers should also implement different tools of assessment and evaluation to reflect their students' different learning styles. Some examples include a rubric, survey, panel discussion, video production, etc. Teachers should develop a wide range of options that appropriately address the different learning styles of their students.

5.5 Underachievement

It is critical that teachers are vigilant in looking for signals to prevent underachievement in all students, including the gifted. According to Gross (1999), an unmotivated gifted student may demonstrate off-task behavior in the classroom and underachieve. This behavior can be demonstrated by laziness, defiance, distraction, disengagement, passive-aggressive performance, or procrastination. Underachieving gifted students may hide their talent, so teachers are unaware of their potential. Upon reflection, it is surprising that highly gifted students do not rebel more frequently against the general educational provision in place. Studies have repeatedly found that a great majority of highly gifted students are required to work in class at levels several years below their tested achievement and potential [9].

5.6 Case Study #3: Xavier Hidden Talent [10]

My name is Xavier Hidden Talent. Because I was always quiet and never put effort into my class work, teachers didn't notice me. One day, a classmate couldn't retrieve a file on the computer. A friend asked me to help because I knew 'everything' about computers.

The teacher seemed surprised when I sat down and quickly solved the problem. She asked how I learned about computers and what I did in my free time. I told her that at home I programmed a string of lights for my family's Christmas tree so that the green, red and white ones would twinkle in sequence. I also told her about how I designed a burglar alarm system for my bedroom door so that a siren would sound whenever my little brother tried to enter. And, I revealed that when my grandfather and I took apart clocks, I was the one to put them back together again. My teacher was amazed!

The next day, the teacher introduced our class to Mr. Dailey, an engineer. She explained that an engineer likes to apply technical and scientific knowledge to find or invent new ways to solve problems. The teacher invited us to come before school the following Monday to work with Mr. Dailey to build and program a robot.

I was very excited—this was the first time I looked forward to coming to school! At last, someone noticed my talents, and I could work with other students who were interested in what I liked to do. I was the first student to show up to school on Monday morning.

5.7 Intervention

Teachers feel comfortable identifying students who are globally gifted because they exhibit both a high IQ as well as a high academic performance in all areas. It is not unusual for some teachers to feel uncomfortable about labeling a student who excels in only one or two academic areas. This is why teachers need to become familiar with the characteristics of giftedness (Table 4.1, Chap. 4). The situation also presents a dilemma for a school district that is trying to identify gifted students. Although it is common practice to nominate globally gifted students, what happens to those students who demonstrate a high performance in only one academic area? Will special provisions be made to extend their accelerated learning in a particular area? Or, do teachers offer them more of the same work?

Teachers need to dig deeper to examine 'domain-specific' abilities of individuals who have abilities and talents that are not recognized in the mainstream classrooms curriculum. Digging deeper will help teachers detect those gifted students who demonstrate a high ability in a particular area(s), but function within an average range in other subject areas [11, 12]. If a gifted child is not recognized for their abilities and if their talents are not nurtured, there is a danger that they will not receive the necessary support and opportunities needed to develop and reach their full potential.

5.8 Intervention Strategies for Teachers and Parents

3 Strategies for Uncovering Hidden Talent

1. Teach to the Child, not the Curriculum
2. Match Child with Mentor
3. Set Motivational Trap

1. Teach to the Child, not the Curriculum

Teachers and parents need to recognize and respect the unique personality of each child. The saying that ‘One size fits all’ no longer holds true. Although everyone understands the concept that ‘One size doesn’t fit all,’ it is important to recognize that ‘One size fits one.’ Therefore, teachers and parents need to collaborate to develop a plan that defines a learning process which will produce the best possible results to ensure maximal learning takes place for each child.

Teachers

It is important for teachers to spend time talking with their gifted students to appreciate their individuality. Focusing solely on the curriculum can be a limiting experience for both teachers and students. Teachers who place major importance on pre-determined content, rather than allowing for a student-driven curriculum, can create frustration in gifted students. Gifted students may feel they are being forced to fit a mold, one which is as frustrating as squeezing feet into a pair of shoes that are too tight to wear.

Parents

Parents are a valuable resource in the life of a child! They should talk with their child frequently and honor their child’s individuality. Encouraging persistence and patience are qualities they can model to teach their child to understand and accept others who are different than they are. By teaching the value of effort, a gifted child learns to try harder when presented with a difficult situation in life.

2. Match Child with Mentor

In the case study of Xavier Hidden Talent, his ability in computers was masked and not readily evident in the classroom curriculum. Only when a situation itself is presented, Xavier was able to reveal his true talent, which enabled the teacher to take notice of his exceptional aptitude. Luckily, Xavier’s hidden talent was recognized and nurtured by the teacher who created a before-school computer class to extend his learning.

Additional support was provided for Xavier when the teacher connected him with Mr. Dailey, who later became his mentor and offered him individualized attention. This encouragement of individualization afforded Xavier an authentic learning experience that further stimulated both his interest and ability. Because he was the first one to show up for computer class on Monday, it can be inferred that Xavier was excited to learn more.

Mentoring is an additional support to offer a gifted child. By matching a gifted child with an older student or adult who shares the same interest can be a validating and rewarding experience. Once a student has been identified as gifted, more provisions and greater challenges should be made for them, both in and out of the classroom. An important aspect of advocating for a gifted child is to help them find and develop their passion and to realize their capabilities.

Teachers

Mentors can provide stimulating and worthwhile experiences for gifted students. By inviting older children and adults to serve as mentors, gifted children become actively engaged in learning more deeply about a topic of their interest. Fostering a mentorship is a great way for teachers to support gifted students who have difficulties with peers, feelings of isolation, and anxiety or behave immaturely. They need help making appropriate choices and developing a sense of well-being. Locating a mentor can be the highlight of a gifted child's day. When coupled with someone who shares common talents or interests, a gifted child can become inspired to make a career choice and think about future plans.

The beginning of the school year is a perfect time for teachers to locate mentors in their community. Creating a survey to ask adults about their jobs or hobbies is an easy way to gather information for matching a gifted student with a mentor. Parental permission is always necessary. Of equal importance, the teacher should schedule and attend the first meeting of the mentor and mentee. The selection of a safe and public environment, such as a school classroom or room at a public library, proves to be a good place to work.

Parents

Parents can support teachers and take responsibility by helping to locate a mentor for their gifted child. They can discuss the idea of an independent, investigative study with their child, and help them to determine a real world audience. Parents need to have ongoing communication with everyone involved in their child's education to be kept informed of progress as well as concerns. Deep and enduring learning can occur once a gifted child is actively engaged in researching a topic of their choice.

3. Set Motivational Trap

Holding high expectations can rouse a gifted student to rise to the occasion by trying harder. According to a study on academically gifted students in Australia, students exhibited significantly more motivation and task-orientation than their peers because they focused on tasks and strategies, rather than personal desires for high grades or recognition [13].

Teachers

Teachers should hold high expectations for a gifted student by setting a 'motivational trap' that challenges them to achieve at a higher level through creating instructional activities and questioning techniques that are engaging and meaningful [14]. Teachers can communicate high expectations by creating

classroom assessments and evaluations that extend excellence beyond achieving 100%. A teacher can also require a gifted student to analyze, evaluate, and create a product using primary research sources before making real-world connections to ensure meaningful learning takes place.

Upon learning that a gifted student was intrigued with genealogy, a teacher could ‘set the trap’ by integrating the topic within the curriculum to captivate their interest. A ‘Heritage Day’ could be created as a culmination of the social studies unit. After students have researched their own family history, they could conduct personal interviews, draw a family tree, and create a scrapbook for future generations. Heritage Day could serve as ‘bait’ because it presents an opportunity for a gifted student to conduct authentic research based on their personal interests and experiences. Integrating both history and language arts through a genealogical study serves to enrich the curriculum. The teacher could extend the curriculum by involving parents in Heritage Day. Inviting parents to participate in Heritage Day at school encourages them to share their culture through ethnic food, personal stories, or artifacts that celebrate diversity.

Parents

A motivational trap is only as effective as the best bait set. It does not work unless a student takes the bait and becomes engaged. Finding the most effective bait often requires parents to collaborate and help teachers to locate resources that stimulate a gifted student’s interest, which entices them to enter the trap. Once caught, a student needs to continue to use and extend their skills when studying a topic. It is important that modifications and changes are updated as needed, and assessments are conducted as an ongoing process, so a trap continues to be effective and learning is sustained.

5.9 Motivation Busters

Underachievement can be the result of a ‘motivation buster.’ Motivation busters are ‘killer statements’ that dissuade students from asking questions to learn more. Some motivation busters that discourage individuals from learning include stress, threats, competition, a lack of self-esteem, and also the cultural stigma of not being ‘cool’ in many schools. However, it is good to know that gifted students can recover and become excited to learn again once they are provided with meaningful goals and rewards [15].

When introducing a new a unit of study, teachers should present gifted students with an opportunity to create their own learning objective that is challenging, yet obtainable. For example, a student in music class might write the following personal learning objective:

I want to research the music of Čiurlionis to compare his style with that of Chopin. Based upon my findings, I will compose and perform an original solo piece on the piano for the class.

Creating a personal learning objective can both inspire and engage gifted students in the learning process. More importantly, it grants them some control in how to reach their goal. Everyone has a different capacity for self-control. Gifted students who believe their abilities can be developed are more likely to put effort into their assignments and persevere through difficulties [16].

As a word of caution, both teachers and parents must be careful to not put undue expectations on a gifted child. They may mistakenly expect a gifted student to be more mature than their classmates because they know the answers to questions and do what is required for assignments. Unfortunately, this is not always the case. In reality, a gifted student may take the easy way out by doing only what is required. As previously cited, a gifted child is not different from any child who may become an underachiever and at risk of dropping out of school. Their problematic behavior and asynchronous learning style can disguise their true potential and ability. If gifted underachievers are not identified or provided with appropriate and challenging opportunities to succeed, they may never demonstrate their true capability. To correctly identify gifted children, both teachers and parents need to recognize the unique characteristics of giftedness in children of all ethnic and racial backgrounds.

5.10 The Value of Struggle

Today's teachers experience pressure to prepare students for tests and may overlook the valuable experience of encouraging a student's struggle to learn [17]. Because of time constraints and pressure to find the 'right answer,' gifted students may not be encouraged to create new ideas or to solve problems in different ways. Consequently, this learning approach negates the challenge and authenticity of preparing students with real-world learning skills.

Since learning usually comes easily for gifted students, they need to be provided with skills to decipher new information when encountering learning something new that is not readily understood. Gifted students learn best when they have to struggle [18, 19]. However, the struggle should be within a range of thinking that is neither too easy nor too difficult so students can attain success. The material should be created as a challenge to encourage the student to stretch their thinking and be achievable within a reach.

Although a gifted student might have an innate ability, learning new information still requires practice and hard work to become an 'expert.' K. Anders Ericsson reports that it takes 10,000 hours of deliberate practice for an individual to master and develop the level of talent of an Olympic athlete or world class musician [20]. This amount of deliberate practice also includes experiencing failure, which helps to build resilience and persistence or willpower.

5.11 The Value of Effort

Some gifted children rely on their intelligence alone to pass a test or solve a problem. Instead, gifted students need to understand and value the importance of effort when learning something new. By internalizing the importance of effort, gifted individuals who have a growth mindset can develop their intelligence over time [21]. And, by providing critical feedback when they have exerted effort, teachers encourage gifted children to internalize how to improve their work.

Instead of a teacher writing ‘Excellent’ or ‘Needs Improvement’ on a student’s paper, it is more helpful to cite an example that specifically informs students about what they did well or what they need to do in order to improve. For example, a language arts teacher may comment on the use of a metaphor to strengthen a piece of writing. By pointing out a weakness and suggesting an alternate way to better develop a concept, a gifted child gains understanding and, with additional effort, can improve their writing skills. In this way, a teacher can encourage a growth mindset, so a gifted child will strive harder to become successful in their work.

References

1. Redl, F. (1966). *When we deal with students*. New York: The Free Press.
2. Matthews, M. (Winter 2008). What about gifted students who drop out? *Duke gifted letter*, 8 (2) (NC: Duke University TIP).
3. Bridgeland, J. M., Dilulio, J. J. Jr., & Morison, K. B. (March 2006). The silent epidemic: Perspectives of high school dropouts. Storrs, CT: NEAG Center for Gifted Education and Talent Development. Report by civic enterprises in association with Peter D. Hart research associates for the bill and Melinda gates foundation.
4. Renzulli, J. S., & Park, S. (2000). Gifted dropouts: The who and the why. *Gifted Child Quarterly*, 44(4), 261–271.
5. Anderson, J. J. (2015). *Albert Einstein: Revolutionary physicist*. Minnesota: Abdo Publishing.
6. Rogers, K. B. (2002). *Re-forming gifted education, matching the program to the student*. Arizona: Great Potential Press.
7. Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
8. Berlin, X. I. O. (1936). [Online], <https://www.olympic.org/berlin-1936>. Access on May 9, 2016.
9. Gross, M. U. M. (1999). Small poppies: Gifted students in the early years. *Roeper Review*, 21 (3), 207–214.
10. Klingner, R., & Leavitt, M. (2014). *Let it flow*. Germany: Lit Verlag.
11. Winner, E. (1996). *Gifted students: Myths and realities*. New York: Basic Books.
12. Matthews, D. J., & Foster, J. F. (2005). *Being smart about gifted students*. Arizona: Great Potential Press.
13. Gross, M. U. M. (1997). How ability grouping turns big fish into little fish—or does it? Of optical illusions and optimal environments. *Australian Journal of Gifted Education*, 6(2), 18–30.
14. Ford, D., Albert, S. R., & Hewart, W. L. (1996). Setting ‘motivational traps’ for underachieving gifted students. *Gifted Child Today*, 21(2) (Prufrock Press).

15. Whitney, C., & Hirsch, G. (2007). *A love for learning: Motivation and the gifted child*. Arizona: Great Potential Press.
16. Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia: Psychology Press.
17. Eyre, D., & McClure, L. (Eds.). (2001). *Curriculum provision for the gifted and talented in the primary school*. London: David Fulton Publishers, p. 4.
18. Dickenson, M. (2012, January 28). Independent Learning and Challenge, Second Life Lecture. Germany: Global Center for Gifted and Talented.
19. Dweck, C. S. (2010, September 16–20). Even geniuses work hard. *Educational Leadership*, 68(1).
20. Ericsson, K. A. as cited. In M. Gladwell (Ed.), (2008). *Outliers: The case study of success*. New York: Little, Brown and Co.
21. Blackwell, L., Trzesniewski, K., & Dweck, C. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Student Development*, 78(2), 246–263.

Chapter 6

Expecting the Unknown: Anticipating Different Levels of Giftedness

Most teachers waste their time by asking questions which are intended to discover what a pupil does not know whereas the true art of questioning has for its purpose to discover what the pupil knows or is capable of knowing.
—Albert Einstein (Theoretical Physicist). [Online], <http://www.azquotes.com/quote/548998>, as accessed on 9/6/16.

Abstract While the plane approaches its destination, a passenger's thoughts transition to envision what to expect next. They must be open-minded and willing to adapt to any unusual situations that occur. Teachers also experience feelings of uncertainty when anticipating how to meet the educational needs of different levels of gifted students, especially those who function in the highest range of IQ scores and level of performance learning. The best practices in gifted education recommend that teachers use multiple measures to effectively educate all students and integrate their curriculum with the national and/or state standards for exceptional children. The case study of Highly Gifted Hwan offers insight for providing intervention strategies for gifted students who function at an exceptionally high level of achievement. Intervention strategies are provided for both teachers and parents to create authentic learning opportunities, offer appropriate resources and experiences, and use higher order thinking skills (HOTS) that can be used with all children in the classroom.

Keywords Achieving goals · Authentic learning · Characteristics of different levels · Counseling · Expectations · Higher Order Thinking Skills (HOTS) · Highly gifted · Levels of giftedness · Prodigy · Questioning techniques

6.1 Expectations

While the plane approaches its destination, your thoughts transition as you envision what to expect next. You may feel anxious about retrieving your suitcase. Or, if flying internationally, you may be concerned about passing through customs easily.

Awaiting the unknown can be unnerving. But, if you are open-minded and willing to make necessary adaptations, you will feel more confident and prepared to understand any unexpected situations that occur.

Teachers also experience feelings of uncertainty when anticipating how to meet the educational needs of all levels of gifted students, especially those who are labeled as highly, exceptional, or profoundly gifted because of a high range in IQ scores of 145–180+. The best practices in gifted education recommend that teachers use multiple measures to effectively educate all gifted students. Some countries have created national standards in gifted education for teachers to integrate into their curriculum for exceptional children. However, writing lesson plans in advance with the intent of never deviating from them offers little chance for students to create something new or learn in different ways. When something goes ‘wrong,’ and the lesson plan does not follow the curriculum content or pacing as intended, teachers should remain flexible and turn the experience into an opportunity for creating new learning.

Providing experiences to promote creativity and provide challenge beyond the classroom walls increases an individual’s intelligence. We know learning depends on the structure of the brain and brain development, which differs from person to person. Brain research affirms no one is born with a predetermined amount of intelligence; intelligence is multifaceted and can be improved upon [1]. The brain is learnable and teachable; it is fluid and not fixed [2]. Thus, it can be implied that creative intelligence can also be developed in an enriched environment that encourages individualization. Because every brain is different, teachers need to teach to the individual. Like the ‘One size fits all’ concept, it is a misunderstanding to think mildly and moderately gifted child have the same needs as those who are highly, exceptionally, or profoundly gifted.

6.2 Achieving the Goal

A pilot is always mindful that the goal of a flight is for the plane to achieve a safe landing. Understanding how to lower the wheels and adjust the speed helps the pilot to prepare the plane for a full stop when the flight comes to an end. Many factors, including wind speed and weather, must also be taken into consideration. In addition, flight attendants need to anticipate the needs of their many, varied passengers and perform a routine inspection to ensure a safe landing.

The goal of preparing gifted children for their destination as a lifelong learner is not as straightforward as the process of landing an airplane. Lifelong learning is a goal in which a teacher must always be mindful of a child’s developmental needs. Teachers must adjust the curriculum so every individual can learn at their own pace and ability level. As argued by Rogers in Chap. 2, teachers need to match the program to the child for meaningful and sustainable learning to take place.

Becoming aware of the unique differences of gifted children and trying to help them to figure out their best pathway of learning is the first step for teacher intervention.

Teachers need to view gifted children as individuals who possess their own particular strengths and weaknesses. They should help gifted children build awareness and acceptance of their potential as exceptional learners. Even though they learn quickly, gifted children also need to know there will be times in which they will struggle. Therefore, encouraging gifted individuals to value effort while achieving harder work will inspire them to develop a growth mindset to evaluate, understand and be able to tackle a new challenge.

If a student believes effort can increase their intelligence, they will begin to understand the value of studying and practicing, and exhibit more motivation when problem solving [3]. It is important that gifted students do not solely rely on their past successes of learning something easily, but are prepared to develop a set of strategies for attacking new and future problems. In this way, they will grow in confidence and be ready to confront more intellectual risks.

Many gifted students come to class with prior knowledge acquired from personal interests, experiences, or talents. Instead of feeling intimidated by the depth of their knowledge, teachers should seize the ‘teachable moment’ and look for ways to help gifted students to stretch their thinking by developing their strengths and talents.

Teachers can help students approach the unknown through a Socratic method of asking open-ended questions to discover answers. They can spark a gifted student’s interest by providing many and varied learning opportunities for enrichment and/or acceleration to help them uncover and extend their passions, i.e., natural interests and talents. Gifted children are not the only ones who are smart. Therefore, teachers can employ higher order teaching strategies to benefit all students in the classroom.

Giftedness needs to be nurtured in all students for a school to be an effective one and for high achievement to emerge [4]. Gifted students usually have high academic self-expectations, and when asked how they like to learn, respond with a preference for self-instructional tasks, games, simulations, or independent studies [5]. Because learning should not be confined to the walls within a school, it is important that teachers collaborate with parents to find a variety of appropriate resources that provide students with a wide range of opportunities in their school and community to encourage personal growth in every child.

6.3 Levels of Giftedness

Before teachers can help high gifted students to learn, a deeper understanding of giftedness is warranted. Teachers and parents need to be aware that different levels of giftedness exist and, therefore, not all gifted children are the same. Although a child may be labeled as ‘gifted,’ each gifted child is unique. Ruf [6: 51] is among researchers who created a chart to distinguish five levels of intelligence based upon

Table 6.1 Standard IQ ranges for the levels [6: 51]

Level of giftedness	Approximate IQ range	Descriptive designation
One	120–129	Moderately gifted (Moderately gifted 120–124/gifted 125–129)
Two	130–135	Highly gifted
Three	136–140	Exceptionally gifted
Four	141+	Exceptionally to profoundly gifted
Five	141+	Exceptionally to profoundly gifted

IQ scores. Due to limitations of IQ tests, Levels 4 and 5 appear to be the same, but they are not. The difference between the levels is reflected in the individual's behavior [6]. It is important for adults to be mindful that not all gifted children function at the same ability level (Table 6.1).

The developmental milestones for an IQ range of 125–155 reflect a socially optimal level for gifted children to exhibit well-balanced, confident, and socially effective behavior [7]. These gifted children usually have little or no difficulty fitting in socially with peers. On the other end of the gifted spectrum, a child who has an IQ of 160 or greater exhibits notable differences than their peers because of a larger discrepancy in their potential to learn as well as in their depth of interests.

An increased level of intelligence can lead to special developmental problems and social isolation. Sadly, because of their feelings of seclusion, and difficulty in finding others like them, exceptionally or profoundly gifted children have a greater risk of dropping out of school or society. Exceptionally gifted students (IQ of 160–179) can become at risk if schools do not provide a challenging curriculum, and profoundly gifted children (IQ score of 180+) may experience even more of a problem because of their lack of social adjustment [8].

Some gifted children with an IQ of 160–200 suffer severe intellectual frustration and boredom, lack of motivation, social rejection by age-peers, and display significantly lowered levels of social self-esteem [9]. Many gifted children could benefit from the help of an informed school guidance counselor or therapist to provide them with insight and understanding of their position in the world.

6.4 Characteristics of Different Levels of Giftedness

Members of a school district's gifted identification committee are encouraged to conduct research on giftedness before beginning the process of identification and provision. They will learn that there are many differences of opinions and the debate of who is 'gifted' continues.

To provide variation in labeling the five levels of giftedness, let us examine the research of Australian author and scholar, Miraca Gross [11]. The IQ score provides understanding of the fundamental differences in mental processing comparing moderately and extremely gifted individuals. However, similar to Ruf, Gross also

Table 6.2 Classification of giftedness [11]

Level	IQ Range	Prevalence
Mildly (or basically) gifted	115–129	1:6–1:44
Moderately gifted	130–144	1:44–1:1000
Highly gifted	145–159	1:1000–1:10,000
Exceptionally gifted	160–179	1:10,000–1:1 million
Profoundly gifted	180+	Fewer than 1:1 million

designates five levels not solely based upon an individual’s IQ score. These levels clearly differ gifted children from their peers in the early acquisition of speech, reading or knowledge, and experience intellectual growth at an accelerated development. Because gifted children are aware of being different than their peers as early as 4 years old, it is important to discern cognitive differences that represent various levels of giftedness to be able to appropriately provide for a gifted individual [10].

Intellectually gifted children can be classified in five levels according to IQ and prevalence in the student population [11] (Table 6.2). Although ‘exceptionally gifted’ can be characterized by early complex speech and the development of movement in a child less than 8 months old, it is rather surprising that Einstein did not speak until the age of 3. Because of his delayed speech, a learning disability was suspected [12].

6.5 The Prodigy

The highest extent of the ‘bell curve’ of the gifted spectrum designates an individual with an IQ score of 180+ as profoundly gifted, referring to them as a ‘prodigy’ or ‘genius.’ Although this level of giftedness historically was thought to be ‘inexplicable,’ ‘out of the usual course of nature’ or ‘monstrous,’ it has evolved over past centuries and can now be defined as a ‘highly gifted or academically talented child’ [13]. It should be noted that many researchers use the term ‘prodigy’ to specify a child younger than 10 years old who performs at an adult level of performance in a demanding given field of endeavor [14]. This definition emphasizes human performance and requires the support of others, especially parents.

In the field of gifted education, ambiguity exists when trying to identify a child prodigy. Subsequently, the concept of a child prodigy is highly misunderstood. There is no consensus for a systematic classification for the behavior of an individual who is considered to be phenomenally exceptional. It should be noted that although prodigies may be average or above average in general academic areas, they demonstrate a powerful and intense inner drive focused on developing their talent in a specific area. Thus, a prodigy is likely to have a domain-specific form of giftedness.

Although there has been little research conducted on child prodigies, it can be stated that few have been identified in fields such as natural science, whereas more have been identified in music. Not surprisingly, more boys than girls have been identified, which is possibly due to a past history of a lack of girls in the fields of math and science. Compared to a savant, a prodigy is not known for memorizing vast volumes of verbal material, e.g., a telephone book, or to correctly recall a correct date in history. It is interesting to learn that parents of prodigies are often involved in the same field of study as their child and may even sacrifice their own career for that of their prodigious child [15].

6.6 Case Study #5: Highly Gifted Hwan

Hi! I am Highly Gifted Hwan. I have an IQ of 180+. My mother is an engineer and my father is a neuroscientist. My parents remember that I began to speak at 6 months and to read at two years old. When I was three, they took me to restaurants where I added up the bill, figured out if any change was due and gave the money to the cashier. At seven, I qualified for Mensa, an internationally recognized organization for people of high intelligence. I was able to skip two grades in school I and entered a university at age fifteen. Because I love math, I enjoy taking courses in algebra and geometry that challenge me.

My goal in life is to work at the Pentagon in Internet Security. I am intrigued with creating codes and programming in C++. I spend a lot of time on the computer networking with other people to share information about developing algorithms. I have gathered hacker programs to analyze and developed my own program to counteract them.

6.7 Neurological Differences

Many highly to profoundly gifted children have been associated with high levels of intrinsic motivation. As high achievers, they usually demonstrate exceptional task commitment for something they want to study because they experience an inner sense of passion, commitment, and persistence. This unique neurological difference of giftedness remains with an individual throughout their entire life. Characteristics of giftedness simply do not go away.

Primarily, it is the highly gifted child who displays characteristics of higher than average responsiveness to stimuli intensity and exhibit sensitivity and overexcitability. Polish psychiatrist Kazimierz Dabrowski's termed it 'Overexcitabilities' and argued the higher an individual's IQ score, the more intense and heightened sensitivities they will experience [16]. It is important that teachers model acceptance for overly excitable and highly sensitive students in class. They need to be

accepting of different behaviors so classmates do not exclude or bully overexcitable children for what appears to be abnormal behavior (see Chap. 10).

It is critical that adults who work with highly, exceptionally, and profoundly gifted children focus on the positive. They need to understand an overexcitable gifted child's distinctive social and emotional needs. Although the gifted child may be more aware, sensitive and/or capable of synthesizing a life experience, they can also feel more isolated and vulnerable at the same time. Just because a gifted child is able to intellectualize an experience does not necessarily mean they have the emotional skills to cope with the situation.

Because gifted students are unique, they require an appropriate education that challenges, stimulates, and motivates them to want to learn new material and information [17, 18]. Like all students, the highly, exceptionally, and profoundly gifted students deserve to have a teacher who inspires and incites them to want to learn more, and presents stimulating choices and meaningful learning to personally challenge them.

6.8 Special Needs

Highly, exceptionally, and profoundly gifted children have special academic, social, emotional, and spiritual needs resulting from their heightened intensity and asynchronous learning development that cause them to stand apart in a crowd. All children deserve to have creative and open-minded teachers and parents who truly understand and like to work with them. In the spectrum of gifted children, teachers and parents must understand the gifted child's unique asynchronous learning styles and specific needs. Unless their high potential and ability are recognized, appreciated, and nurtured, many gifted children may never develop the self-confidence necessary to take their work to the next level and reach their full capacity as a learner.

It is not uncommon for highly, exceptionally, and profoundly gifted children to seek friendship from an adult, e.g., a teacher. Often, a gifted child feels they can communicate better with an adult and use their advanced or technical vocabulary. They may find their peers view it as a negative quality and may make fun of them for using big words they did not know.

6.9 Intervention Strategies for Teachers and Parents

3 Strategies for Addressing Different Levels of Giftedness

1. Create Authentic Learning Opportunities
2. Offer Appropriate Resources and Experiences
3. Use Higher Order Thinking Skills (HOTS)

1. Create Authentic Learning Opportunities

Teachers and parents need to address the appropriate cognition level for mildly, moderately, highly, exceptionally, and profoundly gifted students. By creating authentic learning experiences and encouraging the creation of a product or construction of something in which they can make meaningful connections, a gifted student can become inspired to value what they have accomplished.

Teachers and Parents

Although it is much easier for a teacher to deliver traditional content from the curriculum, challenging a gifted student with authentic learning opportunities encourages thinking that is more analytical and meaningful. Involving students in hands-on learning experiences is more effective than simply asking a student to listen to what is being taught. Students will remember what they have learned from their experience as opposed to memorizing exercises, which are forgotten soon after they take an exam. A gifted student becomes more interested in a topic when they are involved in creating an authentic outcome for a real world audience, e.g., another class in their school or members in their local or global community.

2. Offer Appropriate Resources and Experiences

Locating appropriate resources and presenting various real-world experiences foster developmental learning by enriching the life of a gifted child. Suitable resources can include participating in a debate, contest, or competition, e.g., the Future Problem Solving Program International, designed to develop the ability in young people globally to design and promote positive futures through problem solving using critical and creative thinking (<http://www.fpspi.org/>). By offering leadership opportunities through independent or teamwork, youth are encouraged to research and develop a plan of action that would have the greatest impact for their future. Academic Competitions for Gifted Students: A Resource Book for Teachers and Parents is a good resource guide for integrating national and international competitions within the framework of a gifted child's academic curriculum (See Resource Directory) [19].

Teachers

Exposure to additional learning opportunities widens the breadth and depth of the curriculum to enrich and extend the mainstream curriculum [20, 21]. Offering opportunities that focus on positive aspects of being unique will build confidence in gifted children so they do not feel different in a negative way due to an asynchronous learning style and advanced achievement.

Parents

Parents can expose their gifted child to cultural experiences outside of the classroom. They can present gifted children with opportunities to attend a symphony, ballet, or theater production. Parents can also investigate the appropriateness of MOOCs (Massive Open Online Courses) that are offered by universities. A gifted child can also be enrolled in an online course appropriate for their level of high academic learning, e.g., Athena's Advanced Academy,

LLC, which offers online courses throughout the year in a variety of areas to a community of gifted learners around the globe, including adults (<http://athenasacademy.com>).

If parents discover they have a child who is highly, exceptionally, or profoundly gifted, they could contact the Mensa Foundation to learn about the gifted youth admission policy and its available resources. *Mensa for Kids* offers online activities, contests and e-newsletters to connect gifted children with other gifted children (<https://www.mensaforkids.org>). Many highly, exceptionally, and profoundly gifted students who are fascinated with a specific topic and eager to discuss their interest can connect with someone who shares their passion at a higher level of learning. Similar to challenging yourself to play tennis with someone who is more skillful than you, gifted children need to experience a challenge that will hone their skills by interacting with children who are intellectual equals.

Regrettably, schools may not accommodate the needs of gifted children, e.g., missing classes to attend a concert, competitions, etc. If parents believe the school is not providing an appropriate education for their gifted child, they need to search for an alternate favorable learning environment, such as home-schooling or private school.

Although enrichment and acceleration opportunities are meaningful and important in the lives of gifted children, it is important to extend the pedagogy in the mainstream classroom because giftedness can occur in different people at different times and under different conditions [22]. Offering opportunities in a variety of subject areas can spark exploration of interests to benefit *all* students, not only gifted. However, it is important to watch for signs of stress in gifted children and to address them immediately. Gifted children need to develop and flourish, and not become overwhelmed by feeling an even greater gap among other children.

3. Use Higher Order Thinking Skills (HOTS)

Teachers and Parents

Using higher order questioning strategies encourages a gifted child to analyze information, expand answers, and cite evidence to support their thinking. Because there are no costs involved, both teachers and parents can implement HOTS either formally or informally. The following 12 higher order thinking skills benefit all children at home or in school:

1. Bloom's Revised Taxonomy

In the 1956, Benjamin Bloom published a framework that highlighted six categories of educational objectives to help teacher write curriculum from simple and concrete (recalling facts) to complex and abstract (producing a new piece of work): knowledge, comprehension, application, analysis,

synthesis, and evaluation [23]. This taxonomy of learning is depicted as levels in a pyramid to encourage questioning techniques that evaluate a student's knowledge and understanding.

In 2001, Bloom's Taxonomy was amended to turn the hierarchy of nouns into action words. It became known as 'Bloom's Revised Taxonomy.' Here is a list of Bloom's Revised Taxonomy with examples of question starters to serve as a tool for planning curriculum and delivering instruction [24]:

1. Remembering: *Record, recall, locate ...*
2. Understanding: *Discover, observe, interpret ...*
3. Applying: *Implement, compute, list ...*
4. Analyzing: *Categorize, distinguish, sequence ...*
5. Evaluating: *Compare, debate, measure ...*
6. Creating: *Construct, invent, predict ...*

Although you do not have to stick to any particular order when teaching, it can be helpful to begin with the basic level, i.e., 'Remembering,' to gauge the ability level of a student for the first time. Asking relevant higher order questions based upon Bloom's Revised Taxonomy is great way to inspire children to stretch their thinking.

2. 'What if' Questions

Encourage gifted children to think in diverse and creative ways by probing with a question stem that begins with 'What if ...?' For example, you can ask, 'What if the Internet stopped working?' 'What if you moved to another country in which people spoke a different language than you?' Ask open-ended questions to encourage gifted children to extend their thinking by looking for more than one answer to solve a problem.

3. Socratic Questioning

Socratic questioning, a technique named after the Greek philosopher, Socrates, stimulates critical thinking by asking and answering open-ended questions. Some examples might include, 'Does anyone have anything more to add?' 'What different ways can you think of to solve this problem?' 'What questions do you still have or want to ask?' Urge students to be prepared by creating a few possible solutions to a problem that offer additional possibilities in case a classmate responds first with an answer they also had in mind. An open-ended question can also begin with the question stem 'How might?' or 'In what way(s) might?'

4. Backward Brainstorming

Start with the end in mind by providing your children with a product or conclusion. Then ask 'If this is the answer, what is the question?' This technique requires children to create an explanation and make sense out of their answer by providing supportive evidence. Teachers and parents can further extend a gifted child's thinking by asking them to list steps in their explanation that detail how they arrived at their results.

5. **Degrees of Separation**

Degrees of separation is based upon the theory that anyone on the planet can be connected by sequencing at least 3–5 acquaintances. To promote creativity and make conceptual links, select two pictures that represent different objects. Ask students to make a connection linking the two by writing six sentences in which they use the last word of the first sentence as the first word for the following one. According to the ability level of your students, you can challenge them with an appropriate number of sentences other than six. Critical thinking can be used in any subject area and adapted for any level of student.

6. **Forced Analogies**

Challenge gifted children to compare two unlike items by using a figure of speech, i.e., a simile (using ‘like’ or ‘as’) or metaphor (direct comparison). For example, ‘He was as hungry as a bear’ (simile) or ‘She was a stubborn mule who resisted change’ (metaphor). This can be a good way to motivate and engage students before teaching a lesson! You can also use this idea as a homework assignment by presenting students with the task of creating their own forced analogy to challenge their peers the next day in class.

7. **Scaffolding**

Instructional scaffolding is a learning process of dissecting or breaking a lesson into chunks of relevant information to help children digest the content easily. Providing various tools, e.g., graphic organizers, for students to chunk out and visually record information helps them to avoid becoming overwhelmed by textual material. By grouping similar thoughts, students find it easier to remember the information because it becomes meaningful when categorized. An example of a graphic organizer that endorses creativity is a concept map or mind mapping. These tools enable students to cluster their ideas through the illustration of a web. Adding color-coding and/or pictures to the nodes or bubbles of words can enhance thinking.

8. **Tiered Lessons**

Imagine a three-layered wedding cake. Think of each layer or tier as representing a different ability level in a classroom to accommodate the wide span of learners. Creating a tiered lesson is an effective way for teachers to differentiate classwork expectations. For example, Tier 1 requires students to read and highlight verbs on a page. Tier 2 extends the students’ thinking by asking them to define various verbs they highlighted to use correctly in a short story. And, Tier 3 challenges students to illustrate or dramatize their story. Each sequential tier presents greater complexity in the assignment.

9. **Reverse Thinking**

Instead of asking how to make an experiment work, teachers can challenge students to think of a variety of ways in which an experiment can fail. A ‘flipped approach’ forces students to consider realistic as well as silly and creative ideas for many probabilities, possibilities and predictions. Reverse thinking can be a fun and creative way to challenge students!

10. **Dig Deeper**

Teachers and parents should inspire gifted students with statements or questions that require them to dig deeper to provide a meaningful learning experience. For example, ‘In what ways would life be different if you became blind?’ Ask children to evidence their reasons. Digging deeper challenges students to think more by personalizing the situation, rather than if they read an article about optics and the eyeball. You can elicit more information by asking open-ended questions so students will continue to think, explore, and reveal new thoughts.

11. **Ask Five Hardest Questions**

To extend your questioning technique, challenge gifted children to create at least five of the hardest questions that can be answered from their reading. Ask students what makes these particular questions the hardest ones to answer. Can they identify any commonalities between the questions or classify them into specific categories? What opinion do their classmates hold? Is there a consensus of agreement among the group that these are the five hardest questions to answer? Why or why not?

12. **Tell the Story**

After reading an article or piece of literature, ask gifted children to retell a story from the perspective of a graph, a photo or any object related to the content. Gaining a different perspective promotes understanding of another person’s point of view. It also stimulates creative as well as critical thinking.

Higher order thinking skills encourage gifted children to think in many different ways. Teachers should not provide students with all of the answers. It is important that students leave the classroom still thinking about the lesson and searching for additional answers. Although some gifted individuals do not consider themselves to be creative, everyone has the capacity to think in new ways. HOTS can be used to differentiate learning challenges for children of all ability levels. These strategies motivate students to produce more interesting and provocative lessons in which everyone learns from one another. Students may surprise themselves by the creative answers they can come up with!

HOTS techniques are especially effective for gifted children who complete assignments early in the classroom. By exposing all children to as many physical activities, intellectual undertakings, and art forms as possible, children will discover ways in which they are ‘smart.’ Everyone should be encouraged to experience novelty and have fun thinking ‘out of the box!’

6.10 Providing Resources that Celebrate Diversity

If an unforeseen problem prevents the scheduled landing of your flight, an alternative plan is warranted. The pilot needs to communicate the new situation to the control tower. The set of normal safety regulations must be replaced with updated resources that address the new situation that has arisen.

Similar to an alternative plan warranted for an unforeseen flight problem, a teacher needs to have a repertoire of teaching practices at their disposal because not all gifted children are alike. A teacher must become aware of the special ongoing needs of each gifted child in order to effectively offer provisions that encourage their learning process. Being a precocious learner does not necessarily mean a child's talent production will automatically continue throughout adulthood. Prodigies also need help to realize their high potential by understanding how it affects them as individuals and how it can serve the greater need of their community and society in the future [25]. Because strong social obstacles can become barriers to discourage an individual and produce negative effects in the development of gifted children, a teacher must be prepared to know how to intervene.

Many of you have heard about 'genius' children who enrolled in a university at the age of 12 or became a doctor at the age of 17. However, displaying extraordinary talent can be viewed as a problem for both teachers and parents due to unique needs that require different resources. The adolescent years can be especially painful as highly, exceptionally, and profoundly gifted children realize their high abilities and strive for perfectionism while trying to find their place in the world. Thus, exceptionally gifted students need to experience a social and emotional balance in their upbringing to prepare them to enter adulthood.

6.11 Was Mozart Really a Genius?

At first, student prodigies may be viewed with awe and trepidation because gifted children easily process complex information in great depth and make connections others may not see. According to Shenk [1], gifted children who are considered to be prodigies are not adult-level innovators, but masters of technical skill. Their mesmerizing quality comes from natural comparison to other students' skills, and not because they compare to the best adult performers in their field. Shenk argues that although advanced for his age, Mozart can be compared to many young musicians today using the Suzuki method. Mozart was born into to a family of musicians who encouraged constant practice and held high expectations for him. His family provided intense and continual nurturance through early exposure to musical instruments and exceptional musical instruction [1]. Unfortunately, many profoundly gifted children do not have their special needs met because they are offered fewer opportunities and experiences at home or in school.

The manner in which a gifted student is raised dramatically impacts their potential learning. If a baby is born with a dominant musical ability that is never acknowledged, encouraged, or recognized, the child may never develop their potential for becoming a talented musician in later life [1]. It can be inferred that being provided with proper nurturance and opportunities cannot be understated.

Gifted children have rights. Like every student, a gifted child also has the right to learn something new each day [26]. Learning something new involves a struggle in

which a student is challenged to acquire and apply new meaning to make new connections that did not previously exist. Every student needs to stretch their thinking and be encouraged to develop their potential.

References

1. Shenk, D. (2010). *The genius in all of us*. New York: Doubleday p. 52.
2. Caine, R. N., & Caine, G. (1991). *Making connections: Teaching and the human brain*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
3. Dweck, C. S. (2010, September). Even geniuses work hard. *Educational Leadership*, 68(1), 16–20.
4. Eyre, D. (2009). The English model of gifted education. In L. Shavinina (Ed.), *The international handbook on giftedness*. Amsterdam: Springer Science and Business Media, pp. 145–161.
5. Rogers, K. B. (2002). *Re-forming gifted education, matching the program to the student*. Arizona: Great Potential Press.
6. Ruf, D. (2005). *Losing our minds: Gifted students left behind*. Arizona: Great Potential Press, p. 51.
7. Hollingworth, L. S. (1926); O’Shea, H. E. (1960); Gross, M. U. M. (1993). In M. U. M. Gross (May 2003). “Play Partner” or “Sure Shelter:” What gifted students look for in friends. *The SENG Newsletter*, 2(2), 72.
8. Gross, M. U. M. (1999). Small poppies: Highly gifted students in the early years. *Roeper Review*, 21(3), 207–214.
9. Gross, M. U. M. (1992). The use of radical acceleration in cases of extreme intellectual precocity. *Gifted Student Quarterly*, 36(2), 90–98.
10. Hollingworth, L. S. (1942). as cited In Gross, M. U. M. (2000, Winter). Exceptionally and Profoundly Gifted Students: An underserved population. *Understanding Our Gifted*. [Online], <http://www.openspacecomm.com>. Accessed September 22, 2016.
11. Gross, M. U. M. (2000, Winter). Exceptionally and profoundly gifted students: An underserved population. *Understanding Our Gifted*. [Online], <http://www.openspacecomm.com>. Accessed September 22, 2016.
12. Goertzel and Goertzel (1962) as cited In Gross, M. U. M. (Winter 2000). Exceptionally and Profoundly Gifted Students: An underserved population. *Understanding Our Gifted*. [Online], <http://www.openspacecomm.com>. Accessed September 22, 2016.
13. Gove, P. B. (Ed.). (1961). Webster’s third new international dictionary of the English language unabridged. Springfield, MA: G. and C. Merriam Co. In D. H. Feldman (Fall 1993), Child prodigies: A distinctive form of giftedness. *Gifted Child Quarterly. National Association for Gifted Children (NAGC)*, 37(4), 188–193.
14. Feldman, D. H. (1993, Fall). Child prodigies: A distinctive form of giftedness. *Gifted Child Quarterly. National Association for Gifted Children (NAGC)*, 37(4), 188–193.
15. Bloom, B. (Ed.). (1985). *Developing talent in young people*. New York: Ballantine Books. In D. H. Feldman (1993, Fall). Child prodigies: A distinctive form of giftedness. *Gifted Child Quarterly. National Association for Gifted Children (NAGC)*, 37(4), 188–193.
16. Dabrowski, K. (1964). *Positive disintegration*. Boston: Little, Brown.
17. Meek, M. (1982). *Learning to read*. London: Bodley Head.
18. Kanevsky, L. K. (1994). A comparative study of students’ learning in the zone of proximal development. *European Journal of Giftedness*, 5(2), 163–175.
19. Tallent-Runnels, M., & Candler-Lotven, A. C. (2008). *Academic competitions for gifted students: A resource book for teachers and parents* (2nd ed.). Thousand Oaks, CA: Corwin Press.

20. Charlie, R., & Koshy, V. (1998). A national curriculum and the sovereignty of high ability learners. *Gifted Student Quarterly*, 42(4), 253–260.
21. Tomlinson, C. A. (1999). *The differentiated classroom*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
22. Renzulli, J. S., & Reis, S. M. (1995). Extending the pedagogy of gifted education to all students. *The Enrichment Cluster Study Research Monograph* 95118. Storrs, CT: University of Connecticut, The National Research Centre on the Gifted and Talented.
23. Bloom, B. S. (Ed.), Engelhart, M. D., Furst, E. J., Hill, W. H., Krathwohl, D. R. (1956). *Taxonomy of educational objectives, handbook I: The cognitive domain*. New York: David McKay Co Inc.
24. Wilson, L. O. (2001). *The Second Principle*. [Online], <http://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised>. Accessed on September 6, 2016.
25. Freeman, J. (2001). *Gifted children grown up*. London: David Fulton Publishers.
26. Siegle, D. (2009). NAGC. [Online], <http://www.nagc.org>. Accessed on April 23, 2012.

Part III Planning for Arrival



Chapter 7

Appraising Passengers: Valuing Enrichment Opportunities

Teaching those types of voracious minds in a regular classroom without enhancement is like feeding an elephant one blade of grass at time.

You'll starve them.

—Elizabeth Meckstroth (Author). [Online], <https://rochestersage.org/2011/09/28/what-are-characteristics-of-a-gifted-child>, as accessed on 9/6/16.

Abstract When approaching the end of your flight, an attendant welcomes passengers to their final destination and announces new information for connecting flights. Upon getting ready to disembark the plane with other passengers, you appreciate the importance of being prepared with new information for the experiences that await you. All trip preparations and newly gained knowledge will serve as a foundation for re-entering the ‘real world.’ At the end of their formal education, a gifted child must also be prepared to enter the ‘real world.’ Upon setting foot on the threshold of adulthood, a gifted child becomes aware of the possibilities that await them. An educational background consisting of a wide array of learning opportunities and enrichment experiences serves as a pivotal point for beginning the journey that lies ahead. This chapter relates a case study in which a student’s passionate interest led to the teacher creating a cluster group that resulted in developing a collaboration between a middle school and a nearby university. Intervention strategies offered for both teachers and parents focus on introducing real-life problem-solving, integrating subject areas, and offering leadership opportunities.

Keywords Creative problem-solving (CPS) • Enrichment experiences • Integrate subjects • Leadership opportunities • Integrated lesson plan • Problem-based learning (PBS) • Real-life problem-solving • SCAMPER • School enrichment programs

7.1 Approaching a Final Destination

When approaching the end of your flight, an attendant welcomes passengers to their final destination and announces new information for connecting flights. If flying internationally, the flight attendant apprises travelers of the procedure for going through customs. Upon getting ready to disembark the plane with other passengers, you appreciate the importance of being prepared with new information for the experiences that await you. All trip preparations and newly gained knowledge will serve as a foundation for re-entering the ‘real world.’

At the end of their formal education, a gifted child must also be prepared to enter the ‘real world.’ Teachers, parents, and mentors who advocated to provide intervention strategies along the way conceived of this moment in time. Upon setting foot on the threshold of adulthood, a gifted child becomes aware of the possibilities that await them. Their educational background of individualized learning opportunities and enrichment experiences will serve as a pivot point for beginning the lifelong journey that lies ahead.

7.2 Enrichment Experience

Teachers can differentiate learning for all students through the instructional practice of enrichment. By modifying their content, teaching process, and products, teachers can address individual learning needs. Enrichment should not be considered as an extra, nor is it a supplementary diet that depends on whether there is enough funding for extra material and tuition [1]. Enrichment is a necessary and enjoyable experience that can provide an integrated educational experience for children.

Although it might be viewed as a one-time occurrence, enrichment has a greater impact on learning when it is integrated into the curriculum. Offering an independent study, for example, encourages a gifted child to explore a topic in greater depth. Subsequently, the child can learn skills to a greater degree than what is covered in the regular curriculum. All children should be presented with opportunities that, potentially, can lead to self-discovery and undiscovered passions or talents.

Luck is an important element in life! In the following case study, Enrico Enrichment was lucky when a teacher listened and helped his group of middle school classmates to foster a relationship with university students from Japan. By finding an authentic audience for their interest in learning about Japan, Enrico Enrichment and his peers experienced an opportunity for enriched and meaningful learning that recognized their curiosity and met their needs.

7.3 Case Study #6: Enrico Enrichment

My name is Enrico Enrichment and I am twelve years old. As part of an international exchange program, my parents hosted a student from Japan for a week. In addition to our visitor learning about our culture, we had the opportunity to learn about his life in a far-away country. Some new things that he shared with us were his love of 'Anime,' i.e., Japanese animation videos, and 'sushi.' Amazingly, I acquired a taste for eating raw fish, which I had never done before.

After our exchange student left, I continued to pursue my interest in Japanese culture through the Internet by learning Kanji, a Japanese language. One day in school, I shared my knowledge of Kanji with friends at the lunch table. A friend admitted that the only thing she knew about Japan was what she read in our history book about World War II. She confessed that she always wanted to learn about life in Japan today, but, unfortunately, the history teacher moved on to another topic.

I asked our history teacher if my friends could meet as a study group in his classroom during lunchtime. He agreed and followed up by contacting a nearby university to invite their Japanese students to meet us. The head of the university's foreign language department thought this would be a good opportunity for collaboration between our two schools because it offered Japanese students the experience of practicing their English by interacting with students in an American school. The collaboration was a great success because everyone enjoyed learning from one another. In fact, we continued to meet throughout the entire school year!

7.4 School Enrichment Program

This 'cluster group' represented a cross-cultural opportunity that inspired a partnership between a middle school and the foreign language department at a nearby university [2]. It serves as an example of how schools can address their students' motivation and interests. Enrico Enrichment and his friends were encouraged and empowered to learn from each other by exploring their passion of wanting to know more about Japan. They further developed their friendship through laughter, empathy, informal conversation, and sharing similar views.

It is important for schools to present appropriate enrichment opportunities that enhance the curriculum for all children. A noticeable strength in providing enrichment is that gifted students have an opportunity to spend time with other gifted students as well as with students who share a common interest or goal.

Teachers need to offer meaningful enrichment opportunities that connect the curriculum to real-life experiences. If gifted students are working on an enrichment or accelerated task during class time, teachers should require the same performance standards required of their classmates. Gifted students should not be expected to accomplish additional work in comparison to what is expected of other students. Teachers need to be realistic in developing criteria and determining how much effort

is expected of gifted students to demonstrate their accomplishments. They also need to be flexible in determining how to grade supplemental or accelerated work.

An enrichment program requires the support of all stakeholders. School board members, teachers, and parents can demonstrate their support by offering feedback and becoming involved. An enrichment program should offer children opportunities that are held at various times and at various locations. These opportunities can take place before or after school, during lunch and study halls or over the weekend with teacher or parental supervision. A program should receive ongoing monitoring to assess and evaluate if it is operating successfully. If a program is perceived as not working, changes must be made. In this way, an enrichment program will be perceived as creditable and valuable for the school district.

An enrichment program can either invoke strong support or bring extensive criticism in research literature [3]. The pull-out program has often been a target for criticism claiming that it is exclusive and serves an elitist population. Nevertheless, this has not been the case when all students in the school are offered participation in various differentiated schoolwide enrichment opportunities. When provided with extension material that enriches curriculum made available to all students, enrichment programs will not have an elitist connotation.

7.5 Intervention Strategies for Teachers and Parents

3 Strategies for Providing Enrichment

1. Introduce Problem-Based Learning
2. Integrate Different Subject Areas
3. Offer Leadership Opportunities

1. Introduce Problem-Based Learning

Schools need to provide an enriched environment for gifted and all students on a daily basis. It is important for children to view possibilities and probabilities of solving problems in many ways throughout their life. A teacher can introduce the opportunity of everyday problem-solving through Problem-Based Learning (PBL). PBL is a strategy that offers readily available enrichment and costs nothing for teachers to integrate into their curriculum or for parents to try at home.

Teachers

Teachers can support Problem-Based Learning (PBL) by challenging students with open-ended questions and inspire them to solve problems in a three-step creative problem-solving process. Whenever possible, problem-solving should be connected to authentic learning situations to provide meaningful learning experiences for students.

One example of PBL is Creative Problem-Solving. Teachers can implement the systematic approach of Creative Problem-Solving (CPS) in any subject. CPS

encourages critical and creative thinking by investigating problems and seeking many possible solutions. The three-step creative problem-solving process is as follows [4]:

- (1) Understand the challenge
- (2) Generate ideas (using both divergent and convergent thinking)
- (3) Prepare for action.

When conducting a brainstorming session, teachers should not discourage students from sharing ordinary or obvious answers to solving problems. Even though the goal of creative problem-solving is to encourage a variety of different responses, similar ideas can serve as a springboard to help students think beyond to those that are more unique and creative in nature.

In addition to the creative problem-solving approach, some teachers like to use SCAMPER as a tool for critical and creative thinking to generate various options. Credited to Bob Eberle in the 1970s, SCAMPER encourages children to examine something in more than one way to think of new and innovative ideas. SCAMPER is designed to encourage and spur the creation of many creative ways of doing things through modifications or changes in perspective [5]:

- **S** = Substitute
- **C** = Combine
- **A** = Adapt
- **M** = Magnify
- **P** = Put to Other Uses
- **E** = Eliminate (or Minimize)
- **R** = Rearrange (or Reverse)

Implementing PBL will facilitate creative thinking by encouraging children to take intellectual risks. They will have fun thinking of wild and crazy ideas without censorship. Of course, violent ideas are not encouraged. Though creating a supportive environment to think openly, teachers help students to develop an appreciation of others who think in different ways, which helps to build tolerance in the classroom.

Parents

Parents can implement PBL, CPS, as well as SCAMPER when informally talking to or working with their child at home. For example, a child can be encouraged to think in different ways by creating a shopping list of food items to buy for a family meal. By reinforcing creative and critical thinking at home, children will develop the ability to apply their thinking skills when solving real-life problems.

2. Integrate Different Subject Areas

Integrating different subject areas is a strategy that engages all students in the learning process. Because there are unlimited combinations of subjects that can be paired, teachers can be creative in conceiving content for assignments.

Teachers

Creating an integration of different subject areas or an interdisciplinary unit presents an opportunity for a teacher of one content area to collaborate with a colleague of another subject area. Through this collaboration of diverse disciplines, a flexible and differentiated curriculum can evolve that engages all learners in developing complex associations of a topic. The combination of two or more subject areas offers many choices that can extend individual ‘learning pathways.’ Learning pathways meet the student’s needs and aspirations by drawing upon a wide range of expertise and specialism in the community [6]. Following are examples of integrated lessons in a middle school social studies unit on Mesopotamia to illustrate how learning can be enriched and understanding can be advanced for students of different learning styles: (Table 7.1)

Parents

Integrated learning opportunities should not be confined to the classroom. Parents can expose their gifted child to community service to supplement and enhance their educational experiences. One example of an international community service organization is the Jane Goodall environmental program, *Roots and Shoots*. Through participation in Root and Shoots projects, young people around the world share their concern for the care of animals, people, and the

Table 7.1 Lesson plan integrated social studies enrichment: middle school unit on Mesopotamia

Geography, math and technology	Drama and law	Art and communication	Science and technology	Art, music and drama
Students will research primary and secondary sources to compare and contrast the geography of Northern and Southern Mesopotamia. As a travel agent, they will create a brochure that entices vacationers to travel to one of these areas and prices out the flights, hotel, and food costs for a week using the Internet.	Students will dramatize a court case to determine the innocence or guilt of someone accused of committing a crime based upon Hammurabi’s Code of Laws—Babylon. Students will simulate a jury to enact the verdict. They will debrief and discuss how it compares to our legal system today.	Students will create a clay slab sculpture depicting cuneiform, the earliest form of writing used by scribes to tell about crops, taxes, and life in Mesopotamia. Students will explain their completed tablets to a class of younger students.	Students will research what building material could be found in the environment of Mesopotamian. In Zeus’ domain of ‘Minecraft,’ they will then apply SCAMPER to the material using 3 × 3 cubes to create an artifact, such as a tool, bodily adornment, or a building during 1890s BCE.	Students will create a board game or TV game show with a theme song, e.g., ‘Jeopardy,’ based upon facts learned and play it with the entire class. Note: In Jeopardy, students are presented with the answers and challenged to come up with the correct questions.

environment [7]. By participating in an international organization, gifted children feel they are part of a greater entity through connecting with other like-minded individuals.

3. Offer Leadership Opportunities

Schools can avail themselves of a multitude of schoolwide enrichment opportunities that benefit all students, including the gifted. Renzulli refers to this as the 'rising tide' in which the net effect can be an overall rise in the quality of student thinking and, consequently, improve achievement [8]. If offered appropriate opportunities, gifted students have the potential to demonstrate their ability through a leadership role, which may contribute to solving future problems in their society.

Teachers

Suggestions for enrichment activities comprise a variety of educational options. Teachers can organize lectures or workshops. They can ask parents and community members who have expertise in a particular skill or interest to lead the activity.

Enrichment programs can benefit learning and growth of social skills, especially for low-income and minority students. However, due to budgetary constraints, many schools are unable to provide educational essentials for all students on a consistent basis. This problem directly impacts gifted students who require academic rigor in their educational plan, and need additional opportunities to develop their potential [9].

Because many gifted students are not appropriately challenged in the mainstream classroom to explore and discover, enrichment opportunities can help to address the learning gap. A gifted student may assume a leadership role by teaching a class of younger students in an area of their expertise. It is very powerful to see young people become role models and grow in self-esteem. Teachers need to ask gifted children for additional ideas for courses or workshops they would like to create. The ideas and opportunities are endless!

Gifted children should not be expected to know everything. Even though some gifted children expect it, they need to unburden themselves and realize they do not have all of the answers. Their ideas and thinking will not always be profound and meaningful. This may have feelings of being an imposter and not gifted at all if they believe they cannot live up to certain expectations. Encouragement through empowerment can be an effective strategy. When teachers position gifted children to lead cluster groups in areas of their interest and expertise, gifted children are encouraged to believe in themselves and take pride in what they know and have an opportunity to share.

Parents

Parents should help support their child's special interests and activities both in and out of school. They can demonstrate their support by serving as chaperons for school field trips, coaches for national and international competitions, mentors, lecturers, or workshop presenters. Parents and teachers should work together to create many opportunities for parents to become involved in their child's life at school.

Parents can implement PBL, CPS, as well as SCAMPER when informally talking to or working with their child at home. For example, a child can be encouraged to think in different ways by creating a shopping list of food items to buy for a family meal. By reinforcing creative and critical thinking at home, children will develop the ability to apply their thinking skills when solving real-life problems.

Parents can also help their gifted child to explore community service opportunities. They can help their child to organize a project. For example, they might arrange for their child to collect food for homeless people, read to small children at the library or become involved in a beach clean-up day. A gifted child can assume responsibility for service or leadership in an area of their interest or expertise.

If leadership role is not a comfortable role for their gifted child, a parent needs to intervene and have a discussion to find out if the child feels they lack organizational skills or has difficulty with social interaction. It is important that parents are aware of how much leadership a gifted child can handle. Like any student, a gifted individual can become overwhelmed and require guidance and emotional support to assume additional work and responsibility.

References

1. Freeman, J. (1998). *Educating the very able: Current international research*. London: The Stationary Office.
2. Leavitt, M., & Watabe, Y. (2003, Fall). Creating a cross cultural partnership of Middle School and University Students in America. *Impact: Connecticut's Journal for Middle Level Educators*, 9(2).
3. D. Eyre and L. McClure (Eds.) (2001). *Curriculum provision for the gifted and talented in the Primary School*. London: David Fulton Publishers, p.4.
4. Treffinger, D. J. (2007, December). *Creative problem solving (CPS): Powerful tools for managing change and developing talent* (Vol. 22, Issue No. 2). Gifted and Talented International.
5. Eberle, B. (1996). *Scamper: Games for imagination development*. Waco, Texas: Prufrock Press Inc.
6. Arnold, R. (2006). *National foundation for educational research report: Schools in collaboration: Federations, collegiate and partnerships*. Slough, England: NFER/EMIE. [Online]. <http://www.nfer.ac.uk/nfer/publications/EMI15/EMI15.pdf>. Accessed on September 4, 2016.
7. Jane Goodall's Roots and Shoots. [Online], <http://www.rootsandshoots.org>. Accessed on September 4, 2016.
8. Renzulli, J. S. (1998). A rising tide lifts all ships: Developing the gifts and talents of all students. *Phi Delta Kappan*, 80(2), 104–111.
9. Dickenson, M. (2012, January 28). *Independent learning and challenge*, Second Life Lecture. Germany: Global Center for Gifted and Talented.

Chapter 8

Preparing for an Early Landing: Providing Acceleration

All of us do not have equal talent, but all of us should have an equal opportunity to develop our talent.

—John F. Kennedy (Civil Rights Address). [Online], http://thinkexist.com/quotation/all_of_us_do_not_have_equal_talent-but_all_of_us/148062.html, as accessed on 9/6/16.

Abstract A pilot can face unforeseen challenges. Sometimes flights are delayed, canceled, or diverted due to unpredicted circumstances. Even though an early arrival is usually a good thing, it can pose a problem if the plane cannot land because of mechanical failure or if the airport is not prepared to receive passengers at that time. Gifted children are exceptional learners who also can experience a problem of ‘early arrival,’ and, thus, require ‘acceleration.’ This chapter introduces acceleration as an educational intervention that moves students through an educational program at a faster rate or at a younger age because they are being held back in the mainstream classroom. A case study is presented in which a school screening committee decides to grade-skip a student who tests two years beyond his grade level. Intervention strategies are delivered to discuss the necessity of why it is necessary for both teachers and parents to suspend expectations, offer an independent study and take time to talk about future plans with an individual who is advancing through the system at a faster pace than his peers.

Keywords Acceleration · Compact curriculum · Future plans · Independent study · Meaningful learning · Peer pressure · Suspend expectations · Zone of proximal development

8.1 Arriving Before Schedule

A pilot can face unforeseen challenges. Sometimes flights are delayed, canceled, or diverted due to unpredicted circumstances, such as bad weather. Although a flight view data source may indicate the scheduled arrival time, the flight may actually arrive at its destination earlier than estimated. Instructions are then received from

the control tower for the pilot to maintain a holding pattern until the airway is clear for landing. Even though an early arrival is usually a good thing, it can pose a problem if the plane cannot land because of mechanical failure or if the airport is not prepared to receive passengers at that time.

Gifted children are exceptional learners who also can experience a problem of ‘early arrival’ because they require ‘acceleration’. Acceleration is an educational intervention that moves students through an educational program at a faster rate or at a younger age because they are being held back in the mainstream classroom. Based upon an individual’s readiness, motivation and potential to learn, acceleration is the first consideration in planning an appropriate curriculum for gifted students if they have been diagnosed with an advanced development in one or more areas of the curriculum [1].

Acceleration validates a systematic approach to fast-tracking a gifted individual. In 2004, the John Templeton Foundation sponsored a report titled *A Nation Deceived: How Schools Hold Back America’s Brightest Students*. The report highlighted the disparity between the research on acceleration and the educational practices in the United States [2].

If prior learning has already taken place, subject or whole-grade acceleration is warranted. The Iowa Acceleration Scale, 2nd Edition is a guide that offers a summary and planning record for whole-grade acceleration for grades K-8 [3]. This document serves to evidence why a gifted child is ready for advanced placement. Unfortunately, subject acceleration can present a problem for schools when a teacher cannot follow a previously laid-out curriculum. Thus, teachers need to be flexible when addressing opportunities for acceleration.

A school district also needs to be open to the concept of creative scheduling. It is up to the members of the gifted identification screening committee to locate an individual in their school or community to serve as a mentor who can provide an advanced student with appropriate accelerated learning in a subject, such as math, if warranted. If no one in the school can serve to mentor the gifted child, it then becomes the responsibility of the parent or guardian to transport their child to a nearby school that can accommodate them in class.

8.2 Acceleration Before Enrichment

Acceleration must precede enrichment within the core areas of classroom learning. Similar to enrichment, research shows that acceleration can also include an array of options for a precocious gifted child [4]:

- Early Entrance (Based upon an examination)
- Single-Subject Skipping (Pre-assessment and evaluation)
- Grade Acceleration
- Concurrent Enrollment
- Compacting Curriculum

- Cluster Grouping
- Regrouping for Specific Instruction
- Enrichment or Pull-out
- Advanced Placement (AP) classes
- Credit-for-Learning
- Post-Secondary.

At the secondary level in the United States, a gifted student can be offered acceleration based upon results of an early entrance exam that qualify the individual for Advanced Placement (AP). This is followed by the student attending a class at a nearby college or university to earn college credit. Additional options include:

- Distance Learning (Online, web-based course)
- Mentorships (Interest- or ability-based relationship with a qualified adult)
- Individualization (Independent study).

Contrary to some beliefs, acceleration does not push a student to learn advanced material before they are ready. Research shows that academic achievement can be beneficial for a gifted child who skips a grade in addition to their social adjustment and academic self-esteem [5, 6]. Unfortunately, many school districts are not yet responsive to this idea. This is largely due to the fact that special accommodation impact the existing curriculum and require the school to make modifications and scheduling changes to accommodate an individual or small group of gifted students.

In 1942, a study of students with an IQ of 140+ conducted by Hollingworth found that gifted students were wasting half of their time in the classroom [7]. Doing nothing at all results to address the needs of gifted children in a waste of their natural ability. This research informs us of the pivotal role both teachers and parents need to play as advocates for exceptional learners. If an appropriate education is neglected for gifted children, repercussions can lead to a national population that is ill prepared to compete as future innovators in a competitive global society.

8.3 Case Study #7: Advanced Ajay

My name is Ajay Advanced and I was a 'grade skipper.' My mother described me as a 'prairie dog' who popped up my head up to look around and see what was going on. When I was eight years old, the principal held a meeting with my parents, teacher, and school psychologist to determine a correct academic placement for me. Because I tested two years beyond the current curriculum, it was decided I would be allowed to skip from third to fourth grade.

I didn't know what to think! Because I did not have friends in third grade, I wasn't upset about changing grades. I agreed that the work in third grade work was boring and I really wanted a challenge. I was told this would be the best way for me to develop my ability.

At first, I had difficulty adjusting to fourth grade. Everything was new. But, eventually, I found myself relating to the older students because we had interesting discussions. After a while, I started to make friends! Now, I look forward to coming to school to learn something new each day.

8.4 School Intervention

In the previous case study, the school screening committee met with Advanced Ajay and his parents to review his academic, social and emotional background and needs. The team of experts recognized his need for an advanced level of work that provided a rigorous academic challenge. Even though Ajay was younger than students in the next grade, the committee members believed it would be an appropriate academic placement and were confident he would adjust socially within the next few years. They put measures in place to conduct an ongoing evaluation to ensure Ajay would thrive and their decision would continue to be the best option.

Although this change proved to be successful for Advanced Ajay, grade skipping is but one option to consider for gifted students who need a greater challenge and show signs of readiness for advanced academic work. However, it can take time for the individual to adjust to change, whether it is academic, social, or emotional.

Acceleration may not be the right answer for all gifted students, especially for those who experience social isolation with older peers, or who are struggling with the advanced work. It may not be the best choice if it means a gifted child skips a grade level and joins a class in which they have a sibling. It may also not be a good choice if the gifted child is reluctant to leave behind their teacher and classmates. Thus, everything must be carefully considered when weighing the benefits of an advanced placement.

The school placement team designed an Individual Education Plan (IEP) for Ajay which offered a modified schedule to reflect change at a gradual pace. It also articulated ongoing monitoring of his progress and assessment of eventual achievement. Meeting individualized requirements through an IEP is a priority that should identify alternative programming for an identified gifted student. An IEP serves to communicate both short and long-term education goals for a gifted student to provide awareness, consistency, and accountability within a school district.

Ajay immediately transitioned by attending one advanced math class each day, which was his area of strength. He then progressed to attending a half day in fourth grade. After two weeks, the school placement team reconvened to meet with Ajay's parents and evaluate his progress. Based upon the outcome, it was decided that Ajay was ready to handle a full school day in fourth grade. A plan was devised to gradually allow Ajay to make the academic and social adjustments in his schedule. Luckily, the transition period went smoothly and Ajay made the adjustment.

Like Advanced Ajay, every gifted child needs to be offered an appropriate education that meets their special needs. By offering various opportunities at a

child's individual learning level, teachers can challenge gifted students with new and meaningful learning that encourages them to think every day [4]. Students learn best when presented with appropriate opportunities within their zone of proximal development.

Vygotsky's 'Zone of Proximal Development' states that if work is too difficult, a student can become discouraged and give up. Similarly, if the work is too easy, a student can become bored and lose their motivation to learn. It is a teacher's responsibility to ensure that the material presented to a gifted student is offered at an appropriate ability level to encourage success [8]. Continual assessment and feedback are critical to monitor the appropriate level of learning for a gifted child so provisions can be modified or adjusted when needed.

It is not uncommon for gifted children to be afraid of making a mistake and, subsequently, avoid taking academic risks. Their fear of being perceived as too smart by their peers can cause them to hold back because they do not want to incite name-calling and bullying. Therefore, many gifted children try to use different strategies to cope with social exclusion. Some children might try to hide their giftedness to conform to society and avoid situations that reveal how different they are from others [9]. Research discloses peer pressure is a leading factor governing a gifted student's academic success at school [10]. Therefore, it is important for teachers to be watchful for any negative treatment of a gifted child. It is good that many more schools today are aware of the importance of implementing a zero tolerance policy for bullying. Bullying is unacceptable and children must be protected from both verbal abuse and violence.

Gifted children experience group pressure to conform in one of the following areas: the academics who work hard and do well; the attention-seekers who do less well; the fun-seekers who are bored and underachieve, and those who reject education and are anti-authority and do badly in school [11]. Most gifted children who conform to peer pressure or average achievement become angry within themselves and unhappy. Therefore, in the same way that schools honor and celebrate the successful accomplishments of their athletes, they should recognize the demonstrated accomplishments of gifted children, e.g., through contests, leadership, and community service.

8.5 Acceleration

Acceleration is a diagnostic-prescriptive approach that requires careful consideration of the academic, social, and emotional needs of a gifted student. It should be considered as a feasible option for advanced students on an individual basis. As with the case study of Advanced Ajay, ongoing assessment and intervention were necessary for providing feedback to ensure a successful adjustment for an advanced gifted student. The intent of acceleration is to successfully match the ability level,

complexity, and pace of the curriculum with the academic needs of a gifted student. Thus, a gifted student who requires a challenge beyond the classroom curriculum is a good candidate for acceleration.

Acceleration does involve modification of the school curriculum to accommodate the needs of a gifted learner when deemed necessary. It should follow a comprehensive assessment of the total situation and be a solution only when accompanied by appropriate evaluation by everyone involved [2]. Some researchers argue for acceleration and believe that enrichment alone may not necessarily be the answer [12]. However, other international research results support the notion that some gifted students were actually better adjusted than their peers because they had been accelerated with grade advancement [13, 14].

8.6 Intervention Strategies for Teachers and Parents

3 Strategies for Offering Acceleration

1. Suspend Expectations
2. Offer Independent Study
3. Discuss Future Plans

1. Suspend Expectations

It is important that teachers and parents suspend their beliefs about what they think all gifted children should be able to do. They need to support the uniqueness of every gifted child and offer a higher level of rigorous work in the mainstream classroom for those who require it. Teachers and parents need to understand it is okay for accelerated gifted children to make mistakes and, even to have the experience of failure. Everyone can learn from their mistakes and failures when acquiring and developing new skills. Hopefully, new learning will impact how things can be done differently the next time.

Teachers

Students can benefit from their mistakes and failures, but require a teacher's encouragement and support to take intellectual risks in a safe and nurturing learning environment. If students can share their ideas and opinions openly without criticism, they will feel comfortable accepting responsibility for their mistakes. They will be encouraged to think creatively and look for innovative ways to solve problems. If a gifted student feels they can openly express themselves, they will not censor their own thinking. Subsequently, they will grow in confidence to develop their own strengths, personality, and style.

Despite the potential advantages, research reveals teachers often resist offering acceleration for a gifted student. An international study by Geake and Gross (2008) reported teachers were mainly concerned with ‘over-isolated socializing’ among highly gifted students [15]. It was feared that acceleration could lead to a social-elitist attitude in gifted students, and those who were accelerated could become isolated and ostracized from groups and unable to make social adjustments [13, 16, 17]. Acceleration, however, may cause some gifted students to feel distressed because they lack the necessary life experiences to comprehend certain intellectual concepts [18]. Therefore, enrichment may be favored over acceleration because it allows many gifted students to remain with their peers and receive extended learning experiences within the classroom.

Parents

Parents set the tone for accepting their gifted child for who they are. Parents must hold realistic expectations of their gifted child and accept both their child’s strengths and weaknesses. If there are other siblings in the family, parents should be careful to not compare any of them to the one who is gifted.

2. Offer Independent Study

An independent or individualized study option (ISO) is a great opportunity for a gifted student who is motivated to study a topic in greater depth. Meaningful learning will take place if the topic is an extension of the curriculum and connected to the real world. Because the student is expected to go above and beyond the regular classwork, curriculum compacting is warranted. After pre-assessing what the gifted student already knows about the topic, a teacher can ‘compact’ the class assignments and make any needed modifications to establish work expectations. Curriculum compacting is a way of lessening the classroom workload to make room for a student to pursue an independent study. Following is a procedure teachers can follow when helping a gifted child to begin an investigative study:

- First, meet with your gifted student during lunch, study hall, before or after school to discuss their topic of interest and determine a focus. Listen to what they say. Ask your student what they want to achieve. You may want to take notes to record their initial thoughts.
- Once your student has a firm idea of what they want to investigate, ask them to write their idea in the form of a question using an open-ended question starter beginning with ‘In what way can I...?’ ‘How might I ...?’
- Ask your gifted student to develop a list of at least five resources to begin their investigation. When possible, they have them conduct an interview to receive firsthand information, use the Internet, locate a primary source in the library, etc. Involve other teachers, parents, and members of the community who could help locate additional resources and provide support for the project.
- Discuss and determine deadlines together. Include times and days for ‘office hours’ when you can meet to discuss progress as well as problems the gifted

student may be encountering. The teacher needs to meet on a regular basis to provide direction and clear up any misunderstandings that arise. In this way, the teacher can help the gifted child to succeed.

- Use backward-brainstorming with your gifted student to decide what the completed project will look like. By envisioning the end-product first, a student can better determine the sequence of steps needed to accomplish their task.
- Encourage your gifted student to research and create an authentic project to share with a real audience. This could be one individual, several people or even a crowd. Urge them to explore their local community as a place to begin. Locating a real audience will encourage meaningful learning to occur.
- Inform the gifted student's parents of their independent study. Ask them to help you to locate a mentor for your gifted student who can provide in-depth information as well as serve as a role model.
- Draw up a contract to be signed by the gifted student, parent or guardian, mentor and teacher that provides both details and deadlines. When everyone is informed and understands the expectations of an independent study, their commitment level and support for the project can increase.
- Upon completion of the independent study, celebrate your gifted student's success! After sharing their finished product with an authentic audience, the teacher should ask the participants and gifted child for feedback. Sharing photos of your student's completed product in the town newspaper or school website can be empowering for both the student and members of the community.

3. Discuss Future Plans

We live in an environment where change has become a constant occurrence in our life. Teachers and parents face the challenge of preparing children for jobs in the future that do not yet exist. To prepare children for unforeseen challenges, both teachers and parents need to work on helping them to develop a growth mindset and flexible thinking so gifted, and all children, become resilient in their pursuits.

Teachers

Listening to a gifted child can be a powerful tool in helping them to succeed. Teachers should take time to talk with gifted students about their present and future goals. They need to remind them to focus on effort and not perfectionism. By initiating a purposeful discussion for how to deal with making a mistake or experiencing failure, children will have an opportunity to explore their own thinking about solutions and consequences. In this way, they can develop preventative strategies to apply to situations before any signs of difficulty arise.

Parents

Parents also play an important role in preparing gifted children for the future. It is important for them to discuss possible social scenarios their child may encounter, especially if they are younger than their peers due to acceleration. Predicting probable strategies and outcomes can help their child to develop coping or survival skills. Parents need to offer advice for how to handle practical situations, such as the reality of an earlier curfew or obtaining their driver's license a year later than their classmates.

Parents need to talk to their advanced child about preparing a 'Plan B' for an alternate career path if life presents an obstacle that stops them from following their dreams. Parents should ask open-ended questions to empower their child to think of various solutions. For example, if a gifted musician sustains a physical injury and can no longer play their instrument, what other possible talent or career route can they envision pursuing?

Research has shown that speaking and reading to their child early and often, nurturing and encouraging, setting high expectations, embracing failure, and fostering a growth mindset are all things that parents can offer their gifted student [19, 20]. Because both teachers and parents have an impact on the personal goals and beliefs of their children, it is important to model curiosity and creativity as well as nurture a love of learning in the world around them. Through conceptualizing and communicating ideas about possible stumbling blocks beforehand, gifted children can develop persistence and learn to persevere to achieve their goals and overcome social difficulties resulting from acceleration.

In summary, independent studies provide a new structure for student learning that taps into new roles involving both teachers and students. Teachers need to think in creative ways to provide opportunities that motivate gifted children and allow them to become 'knowledge navigators' as they experience learning outside of the classroom in the real world.

References

1. Tassel-Baska, Van, & Little, C. A. (2003). *Content-based curriculum for high ability learners*. Waco, Texas: Prufrock Press Inc.
2. Colangelo, N. et al. (2004). *A nation deceived: How schools hold back america's brightest students*. Iowa: University of Iowa (Vols. 1 and 2) [Online], http://www.accelerationinstitute.org/nation_deceived/nd_v1.pdf. Accessed on December 30, 2015.
3. Assouline, S. et al. *Iowa acceleration scale* (2nd ed.). The Connie Beline and Jacqueline N. Blank International Center for gifted and talent development. University of Iowa. Arizona: Great Potential Press.
4. Rogers, K. (2002). *Re-forming gifted education, matching the program to the student*. Arizona: Great Potential Press.
5. Gallagher, J. J. (2003, June). Educational acceleration: Why or why not? *Parenting for High Potential*, 13.

6. Robinson, N. M., & Noble, D. D. (1992). Social-emotional development and adjustment of gifted students. In M. Wang, M. Reynolds, & H. Walberg (Eds.), *Handbook of special education. Research and practice* (Vol. 4, pp. 57–76). Oxford: Pergamon Press.
7. Gross, M. U. M. (1992). The use of radical acceleration in cases of extreme intellectual precocity. *Gifted Student Quarterly*, 36(2), 90–98.
8. Vygotsky, L. S. (1978). *Mind in society*. Cambridge Massachusetts: Harvard University Press.
9. Oust, Rudasill and Callahan (2006) as cited by Persson, R. S. Through the looking-glass: Understanding the social dynamics of human nature and gifted identify. In R. Klingner (Ed.) (2015), *Make them shine*. Germany: Lit Verlag.
10. Stopper, M. J. (2001). *Meeting the social and emotional needs of gifted and talented students*. London: NACE/Fulton Publication.
11. Stopper, M. J. (2001). *Meeting the social and emotional needs of gifted and talented students*. London: NACE/Fulton Publication, p. 40.
12. Van Tassel-Baska, J. (1983). Profiles of precocity: The 1982 midwest talent search finalists. *Gifted Student Quarterly*, 27(3), 139–144.
13. Eyre, D., & McClure, L. (Eds.) (2001). *Curriculum provision for the gifted and talented in the primary school*. London: David Fulton Publishers, p. 4.
14. Freeman, J. (1998). Families, the essential context for gifts and talents. In K. A. Heller, F. J. Monks, R.J. Sternberg, & R.F. Subotnik (Eds.) (2000), *International handbook of giftedness and talent* (2nd ed). Oxford, UK: Elsevier Science Ltd., pp. 573–585.
15. Geake, J. G., & Gross, M. U. M. (2008). Teachers' negative affect towards academically gifted students: An evolutionary psychological study. *Gifted Student Quarterly*, 52, 217–231.
16. Leyden, S. (1985). *Helping the student of exceptional ability*. Kent: Croom Helm Ltd.
17. Freeman, J. (1998). Families, the essential context for gifts and talents. In K.A. Heller, F. J. Monks, R.J. Sternberg, & R.F. Subotnik (Eds.) (2000), *International handbook of giftedness and talent* (2nd ed.). Oxford, UK: Elsevier Science Ltd., pp. 573-585.
18. McLeod, J., & Cropley, A. (1989). *Fostering academic excellence*. Oxford, UK: Pergamon Press.
19. Shenk, D. (2010). *The genius in all of us*. New York: Doubleday.
20. Dweck, C. S. (2010, September 16–20,). Even geniuses work hard. *Educational Leadership*, 68(1).

Chapter 9

Acclimating to Change: Orienting to Intensity

Seek to understand, then to be understood.

—Stephen Covey (Author). [Online], <http://www.simplyaninspiredlife.com/quote/seek-first-understand-then-understood-64>, as accessed on 9/6/16.

Abstract Contrary to a flight arriving at its destination, an overexcitable gifted child embarks on a lifelong journey of learning, one which will present a constant array of new places to explore, people to meet and problems to solve. Like an airline passenger, the child can feel a heightened sensitivity and experience an intensity that is overwhelming. This heightened awareness remains with them throughout their life. However, once everything is understood and accepted, overexcitable children become more comfortable and less distracted in their environment. They can then calm down and manage change. Chapter 9 presents a case study in which an overexcitable gifted child experiences success through an understanding and accommodating teacher who intervenes on their behalf. Intervention strategies are suggested for both teachers and parents to provide appropriate outlets for the emotions of overexcitable gifted children through creating a supportive environment and raising awareness of their behavior.

Keywords Behavioral awareness • Build understanding • Dabrowski • Emotional needs • Heightened sensitivity • Intensity • Overexcitability categories • Overexcitable gifted children • Self-acceptance • Social needs

9.1 How Did My Luggage End up in Frankfurt?

After the plane comes to a complete stop and lands, you grab your luggage from the overhead compartment and join the procession of passengers making their way off the plane and through the airport. While searching for a sign to direct you to the baggage claim area, you suddenly find yourself in unfamiliar territory. It can be unnerving to pass through a brightly lit and spacious terminal with large arrival and departure signs, bustling people of various cultures, the smell of food from restaurants, and loud overhead messages that announce important information about gate arrivals and flight

delays. Feeling overwhelmed and inundated with stimuli, you navigate through the chaos and try to regain confidence and self-control to feel comfortable in your new surroundings.

Contrary to a flight arriving at its destination, an overexcited gifted child embarks on a journey of lifelong learning, one which will present a constant array of new places to explore, people to meet, and problems to solve. Like the airline passenger who is inundated with stimuli, an overexcitable gifted child can become overwhelmed because of their heightened levels of intensity and sensitivity. The abundance of energy and heightened awareness remains with an overexcitable gifted child throughout their life.

An overexcitable gifted child who arrives at their destination, e.g., college or career, initially experiences a feeling of being in an unfamiliar environment. However, once everything is understood and accepted, they become more comfortable, and less distracted, in their new surroundings. Only then, can an overexcitable child calm down and begin to manage change in their life.

It is important for overexcitable children to experience the least restrictive environment possible, one in which they are free to move about. When teachers incorporate movement in their lessons, they are not letting students take a break from learning. Moving around is how children with a kinesthetic learning style learn best. Teachers and parents can build awareness for how individual gifted children learn by dispelling the myth that gifted children can make it on their own without help from adults.

9.2 Check Points

Like an airline passenger who needs to produce personal identification at the check-in counter and a boarding pass at the gate, an overexcitable gifted student must understand expectations and be ready to successfully produce results that are appropriate to deal with different situations in life. As an individual who can be at risk, a gifted child needs to be given support during each step of their journey to fulfill their potential.

Overexcitable gifted children need to experience a level of comfort and know how to ask for help when they encounter challenges. They need to develop an inner-understanding of their own strengths and weaknesses to successfully overcome obstacles. A helpful strategy for overexcitable children is to identify triggers before they cause stress. They need time to think about how to control their reactions and deal with anxiety.

Students who seem to ‘have it all’ can mislead teachers into thinking that they need little assistance or support in the development of their talents [1]. Although a gifted child may not struggle with overexcitability, teachers need to be aware that many confront other challenges in life due to their social and emotional development:

1. *Asynchrony—Learn subjects out of sequence*
2. *Difficult Peer Relationships—Experience difficulty finding like-minded friends*

3. **Boredom and Frustration**—*Doing more of the same work in school*
4. **Imposter Syndrome**—*Believe they are not really ‘gifted’*
5. **Multipotentiality**—*Difficulty focusing on one goal*
6. **Perfectionism**—*Set unreachable goals.*

9.3 Social and Emotional Needs

When boarding a plane, do you wonder who is going to sit in the seat next to you? Perhaps it will be a young male model from Brazil who flies around the world for work. Or, it might be a 40-year-old business woman treating herself to a birthday trip in Portugal. Hopefully, it is someone you will enjoy meeting and talking to during the flight. Potentially, each time you fly, you can sit next to a different person and have a new experience because everyone is different and has their own life story.

Each gifted child is unique. Yet, all children want to find someone who is like-minded. As exceptional learners, gifted children also want to find others who are like-minded to share similar abilities and interests. Because overexcitable gifted children search for someone whom they can trust, it is important that they find children to relate to both in and out of the classrooms. Often, when asked what they desire the most, a gifted child will reply ‘a friend’ [2].

When intellectually gifted children seek friendships, they often gravitate toward other gifted children of approximately their own age or older children who may not be as bright as they are, but who are still of above average ability [3]. However, gifted children seek friendships of teachers and adults who will listen to them and discuss topics of interest on a higher level than their peers. A good listener makes a child feel they are understood and being heard.

Although it is difficult enough to deal with one developmental challenge, some gifted children are confronted with two or more. The belief that a gifted student should excel at doing everything to be guaranteed a successful life can create enormous feelings of personal failure, self-doubt and distress when they experience a struggle or failure [4]. Thomas Edison is an example of someone who demonstrates that ‘being good’ even at one thing, such as inventing something like the light bulb, took years of experimentations, trial and error, and perseverance.

9.4 Overexcitable Gifted Children

Overexcitable gifted children have inborn tendencies for a heightened capacity to respond to stimuli well beyond the intensity and duration of an average child. Overexcitabilities appear early in life as an abundance of energy that can augment talent and creativity in the following areas: psychomotor, sensual, intellectual, imaginal, and emotional [5].

If you have an overexcitable gifted child in your classroom, discuss the concept of overexcitability with them to develop understanding and acceptance for how and why they behave as they do. Provide them with opportunities for time for reflection to encourage students to make connections before responding with their answer. Students can make text to text connections as well as text to real life connections. Subsequently, overexcitable gifted children learn to distinguish what might be imagination and what is reality. Teachers can help overexcitable children to share their reflections and gain control of their feelings for genuine learning to occur.

Following are five overexcitability categories that are identified and defined by Dabrowski along with suggested strategies for intervention (Dabrowski and Piechowski 1977 as cited in Lind 2001: 3–6): (1) Psychomotor, (2) Sensual, (3) Intellectual, (4) Imaginational and (5) Emotional [6].

1. **Psychomotor Overexcitability**—A heightened excitability and surplus of energy that is demonstrated through impulsive behavior, constant talking and a need for action.
 - Strategy—Allow time for physical or verbal activity as well as for spontaneous brainstorming.
2. **Sensual Overexcitability**—A heightened sensual pleasure or displeasure from experiencing the senses of sight, smell, touch, task-making, and hearing.
 - Strategy—Create an environment that limits offensive stimuli for overexcitable gifted children.
3. **Intellectual Overexcitability**—An active mind seeking truth as demonstrated by detailed visual thinking.
 - Strategy—Ask open-ended questions to encourage critical and analytical thinking.
4. **Imaginational Overexcitability**—A heightened imagination using images and metaphors.
 - Strategy—Help gifted children to understand differences between imagination and the real world.
5. **Emotional Overexcitability**—Intense and emotionally complex feelings. Overexcitable gifted children commonly experience stomachaches, depression, or a deep concern with death.
 - Strategy—Help gifted children to manage stress and regain self-control. Accept overexcitable gifted children for who they are.

Following is a case study in which an overexcitable student was recognized for his giftedness in class, even though his behavior could have been easily misunderstood. What a difference one teacher can make in a student's life!

9.5 Case Study #9: Overexcitable Olaf [7]

My name is Overexcitable Olaf. True to my name, I find it hard to sit still in school because my mood swings between happiness and frustration. I like to challenge my parents, teachers and, especially, substitute teachers, by arguing about what I think is fair. I exhaust most people because I speak a 'mile a minute' and have a high level of energy.

I have an intensive drive, and struggle with impulsivity. Many times I become so frustrated that I don't think before I react. I am really passionate and obsessed with things I care about. Because I have a great imagination, I sometimes walk a fine line of not being fully aware of what is imaginary and what is reality.

One day in math class, I wasn't paying attention. I hit my pencil on the desk over and over while thinking about a television program I watched the night before on how the world is losing its rainforests. Unfortunately, the teacher caught me and told me to report for an after-school detention. I felt it difficult to stop thinking about the rainforest and impossible to focus on math.

After school, I reported for detention. I was really surprised when the teacher didn't scold me for not paying attention in class. Instead, he asked me what I knew about deforestation. Then, he did an amazing thing! He encouraged me to research the problem and write an essay on my opinion about how to prevent the destruction. I left the classroom with my brain full of ideas.

When I arrived at school the next day, I handed an essay to the math teacher that described how people could create change to stop the destruction of the rainforests. The teacher encouraged me to continue researching and sent my essay to a local newspaper.

A few weeks later, I was surprised to learn my essay was published in the editorial section of the newspaper. The school principal congratulated me for expressing my concern in an appropriate way. He made me feel good about myself. I felt I had accomplished something important because my voice was heard!

9.6 Recognizing Heightened Sensitivity

In this particular case study, a teacher recognized the importance of Overexcitable Olaf's passionate interest, which focused on the problem of rainforest deforestation. By submitting the student's piece of writing to the newspaper, the teacher honored Olaf's giftedness. Finding an authentic audience encouraged Olaf to continue taking intellectual risks to channel his sensitivity. The teacher helped to build Olaf's

self-esteem by encouraging his exceptional writing ability, which resulted in Olaf experiencing personal success in school.

When writing about the problem of rainforest deforestation, Overexcitable Olaf was experiencing a state of consciousness known as ‘Flow.’ In this complete emersion of a task, an individual is deeply engaged stretching their mind to the limit [8]. It is a great way to experience happiness and develop creativity.

9.7 Intervention Strategies for Teachers and Parents

3 Strategies for Overexcitable Gifted Children

1. Provide Outlets for Emotions
2. Create a Supportive Environment
3. Raise Awareness of Behavior

1. Provide Outlets for Emotions

Helping an overexcitable gifted child find an appropriate outlet for their emotions not only builds self-esteem, but also provides anticipation of fulfilling personal goals for a future career choice. Learning what interests and matters most to a child, and helping them to make appropriate connections to achieve their goal, is the first step of becoming an advocate. Because overexcitable gifted children may rebel against adults who they perceive as authority figures, it is important that teachers foster a respectful environment and seek to empower individuals on their unique pathway in life.

Teachers

Teachers need to understand and clearly communicate their acceptance of an overexcitable gifted child both verbally and nonverbally. They should be aware of their body language when working with an overexcitable child. For example, rolling their eyes signifies exasperation, which can turn a child off to learning. A positive attitude and follow through with appropriate learning opportunities can extend learning for an individual.

It is important that teachers and parents talk often and openly with overexcitable gifted children and listen to find out what they like to do in their free time. Learning what activities are most important to an overexcitable gifted child and integrating their interests into the curriculum can help to calm them down. By integrating art, drama, dance, physical education activities into classroom lessons, teachers are then able to propel an overexcitable gifted child’s interest to the next level of learning.

Overexcitable gifted children enjoy working on problems that involve real-world problems. Because they often display an adult-like sense of humor, gifted children can be playful, imaginative, and sensitive. Often, they can come

up with wild and crazy ideas that spur more creativity in their work. A teacher can capitalize on this knowledge by designing a simulation as a culminating activity for a unit of study. A courtroom case, for example, can dramatize the plot of a story in which the main character is put on trial, e.g., the Big Bad Wolf from Little Red Riding Hood. A simulation spurs a student's imagination and inspires creative and critical thinking. It is also fun for the entire class to role-play and move around in the classroom.

Participating in simulations, debates, or dramatizations provide authentic outlets that can make learning fun for children, especially if they perform or share their product with a real audience. It is important for teachers to present opportunities for gifted children to socialize and interact with each other. Providing gifted children with opportunities to be part of a group or a team comprised of high ability children is important for developing their social and emotional skills.

Parents

Parents need to educate themselves about overexcitability as it applies to giftedness. They can learn more about their child's development by reaching out for emotional support and participating in a group for parents of gifted children. In addition to joining a support group, there are many resources available for parents of gifted children, e.g., books and magazines, listservs and websites that can be found in the Resource Directory on page 127. Parents can also take advantage of attending workshops at yearly conferences. Most importantly, parents need to share their own love of learning and celebrate the uniqueness of their gifted child.

Parents should seek mentors and community resources to provide opportunities for their gifted child to express emotions openly, especially if they are passionate about a topic. Parents can make meaningful learning connections by contacting local businesses, colleges, museums, youth orchestras, and theaters to find opportunities that align with goals their child has set. It is important to recognize and support the special interests of an overexcitable gifted child.

2. Create a Supportive Environment

It is essential that an environment provides a 'safe shelter' for the gifted to take intellectual risks without the fear of being criticized or bullied. In particular, children who are different and have special needs should feel unencumbered and free to focus on learning.

Teachers

Teachers are responsible for creating a safe classroom environment that nurtures and supports the physical, social, and emotional needs of children. It is a teacher's responsibility to provide an environment in which overexcitable gifted children can learn by becoming involved in meaningful tasks based upon their learning styles and areas of strength. Early in the school year, teachers should involve students in creating their classroom environment by asking about their ideas to accommodate heightened sensitivities, e.g., the need for dimmer lights, larger print on reading material or time to move around.

As the authority figures in a classroom, teachers have the autonomy to create an environment that is conducive to learning for all children. They serve as role models for what is considered to be acceptable use of language and behavior, and, therefore, should be mindful of both their verbal and nonverbal communication. Teachers should self-assess their teaching methods and evaluate how they are differentiating the curriculum to motivate all students. They need to continually monitor what is going on in their rooms and stay on top of any distractions that may stand in the way of students learning. Teachers must be diligent in carrying out any consequences necessary that affirm and embrace the classroom rules of safety and respect for others.

A supportive classroom environment cannot be restrictive. It should accommodate the needs for various learning styles of children so they experience a sense of belonging. The room should reflect the students' interests and honor their range of ability levels. The desks, tables, and chairs should be arranged to accommodate all type of learning, e.g., individualization, small and large group learning. Ideally, the room should be designed with an open space that offers a natural flow for children to walk around comfortably as they experience various learning center areas.

The classroom should serve as a gallery to display student work representing various ability levels and learning styles. The student work on display should not reveal any student names, grades, or teacher comments. Creating Learning (Interest) Centers in the classroom can offer additional challenges for students to extend their ability and capitalize on their learning style.

All children should feel welcomed in a classroom environment. Children should be able to 'see themselves' in the room by identifying with various ability levels and learning styles as well as cultural backgrounds that are reflected in the differentiated curriculum. Additionally, teachers should allow for different pacing of the curriculum: individualization of learning, small groups, large groups, and whole class activities. Movement is extremely important for many students, especially those classified as overexcitable gifted. By permitting children to walk around room or down the hall to the library or computer room, teachers can maintain student engagement.

Effective management is part of creating the classroom environment. After a discussion that results in conceiving classroom rules, teachers need to post a copy in the room for everyone to reference. In addition, posting the daily objective for every lesson taught as well as homework assignments will inform students of expectations.

Teacher need to vary their pacing and provide for quiet time as well as time for group work with hands-on projects. By creating a classroom atmosphere that is welcoming to different kinds of learners, students will look forward with the anticipation of learning each day!

Did you know that Google offers its employees time to swim, play ping pong, billiards, or foosball to keep them happy and committed [9]? Like the employees at Google, gifted students with a 'performance orientation' approach to new situations need to be offered plenty of opportunities to show what they know.

Teachers and parents are in a key position to encourage ways to make learning fun both in and out of the classroom.

Parents

In addition to a safe classroom at school, parents should provide a safe and supportive environment in the home to nurture their gifted child. Being mindful of sensory overload, parents need to be observant of their child's anxiety level and be tuned into their particular needs. Frequent communication with teachers at school can inform parents if their child is feeling uncomfortable and having problems in class. Overexcitable children should be provided with a quiet room for studying, one that does not distract them with noise or other stimuli. Parents need to discuss expectations for doing homework with their child so everyone is in agreement in creating a positive place for learning to occur.

3. Raise Awareness of Behavior

Teaching or parenting overexcitable gifted students is not an easy task. Just because a gifted child learns quickly and is passionate about what they want to learn does not mean learning will always go smoothly or the child will stay motivated and focused.

Teachers

Teachers can motivate overexcitable gifted students by identifying their interests and learning styles and integrating them in the curriculum. For example, in Physical Education class, the teacher could invite a Physical Therapist to class to discuss different types of sports injuries and therapeutic strategies for rehabilitation. An overexcitable gifted student might dramatize different perspectives by conducting interviews for a television talk show. A logical and mathematical gifted student could survey another class and classify various categories identified in playing a sport. A linguistically gifted student could write a petition to submit to a Paralympics Committee for the participation of wheelchair athletes in a sporting event. Or, an artistic overexcitable gifted student could create a piece of art to donate and display in a local fitness center.

Teachers need to provide gifted and all students with timely feedback on their assessed work. This is helpful for addressing concerns and correcting any misconceptions students may have. By informing gifted students about results that impact their current performance, they become aware of their strengths and weaknesses at that particular point in time. Knowing that the results are subject to change with additional opportunities for learning should encourage gifted students to improve their performance with time and practice.

Seasoned teachers know the value of having a repertoire of different strategies on hand just in case a plan does not work for a particular lesson. Flexibility and a willingness to modify and/or create new strategies can be critical in meeting the needs of all students so optimal learning takes place.

Parents

Parents can help their gifted child to grow in self-awareness if they understand what signs to look for in their child's behavior. Meeting with a psychologist, therapist, or school counselor can provide guidance by equipping them with this knowledge. Parent support groups can also offer assistance through sharing stories and providing resources. Reflecting upon and discussing specific situations that focus on behavior can help parents to gain insight into the reasons for why their child behaves as they do.

At home, parents and children can watch a movie together and discuss the plot and the main character's motives. Talking informally is a nonthreatening way to build a relationship of trust and acceptance between parent and child. By discussing hypothetical situations and making predictions about a movie, a gifted child will grow to understand acceptable behavioral reactions and can think about how they would react if they were the character. Listening to the thinking process of their gifted child will provide parents with an opportunity to offer acceptable alternative ways their child could respond to certain situations in life.

For some gifted children, keeping a journal will help them to reflect upon their behavioral reactions and consequences to various situations. By writing down or sketching their thoughts, gifted children can communicate more easily about tough situations that involve their personal feelings and reactions. Again, this becomes one more option that can serve as a springboard to open the doors of communication between a child and parent.

References

1. Delisle, J., & Galbraith, J. (2002). *When gifted kids don't have all the answers*. MN: Free Spirit Publishing.
2. Gross, M. U. M. (2003). "Play Partner" or "Sure Shelter:" What gifted students look for in friends. *The SENG Newsletter*, 2(2), 72.
3. Silverman, L. (Ed.). (2000). *Counseling the gifted and talented*. Colorado: Love Publications Co.
4. Cross, T.L. (2002 summer). Competing with myths about the social and emotional development of gifted students. *Gifted Student Today*. Online since November 2003.
5. Daniels, S., & Piechowski, M. M. (Eds.). (2008). *Living with intensity: Understanding the sensitivity, excitability, and emotional development of gifted children, adolescents, and adults*. AZ: Great Potential Press.
6. Dabrowski, K. (1972). *Psychoneurosis is not an illness*. London: Gryf; Dabrowski, K., & Piechowski, M.M. (1977). *Theory of level of emotional development* (Vols. 1 and 2). Oceanside, NY: Dabor Science and Faber, A., & Mazlish, E. (1980). *How to talk so kids will listen, and listen so kids will talk*. New York: Avon. In S Lind. (2001). Overexcitability and the gifted. *The SENG Newsletter*, 1(1), 3–6.
7. Klingner, R., & Leavitt, M. (2014). *Let it flow*. Germany: Lit Verlag.
8. Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. NY: Harper & Row.
9. Strickland, J. *How the googleplex works*. [Online], <http://computer.howstuffworks.com/googleplex3.htm>. Accessed on July 18, 2016.

Chapter 10

Reflecting on the Journey: Connecting the Dots

When you aim for perfection, you discover it's a moving target.
—George Fisher (Author). [Online]. <http://www.simplyaninspiredlife.com/quote/seek-first-understand-then-understood-64>, as accessed on 9/6/16.

Abstract Upon the plane's arrival, some passengers have successfully reached their destination. Others, however, will need to continue on and require additional information to arrive at their journey's end. Like the passengers who continue on, all children, including the gifted, need help to reach their full potential. This chapter offers a case study about a perfectionist who needs guidance with 'connecting the dots' to reflect upon her achievements and understand her inner-self. Intervention strategies are suggested for both teachers and parents to help build social and emotional awareness, dispel myths of giftedness and celebrate the uniqueness of each individual. This chapter concludes with presenting you, the reader, with a landing card of important teaching concepts covered in this book that can be helpful as a bookmark for writing lesson plans, conferencing with parents and working with gifted children. It also includes a Resource Directory and an Index of Intervention Strategies for those of you who want to further your journey in the world of gifted education.

Keywords Behavioral awareness • Celebrate uniqueness • Dispel myths • Index of strategies • Landing card • Lifelong learner • Perfectionism • Provide outlets for emotions • Resource directory • Supportive environment

10.1 Connecting Gate Information

At last, your flight has landed! Upon the plane's arrival, some passengers have successfully reached their destination. However, others need to continue on another leg of their journey by locating the next gate for their connecting flight. These

passengers need to be provided with additional information offering real-time status of the flight's availability that will get them to their destination safely and on time.

Like the passengers who require additional information to continue their journey, gifted children, especially those who are highly, exceptionally and profoundly gifted, need advocates to guide them so they can continue to fulfill their potential. Because the thoughts, actions, and feelings of gifted children are very different than those of their peers, they have different experiences that form different perspectives. Many gifted children may hold unreal expectations for what they are capable of achieving and suffer from self-sabotage because they are perfectionists. Gifted children need guidance to 'connect the dots' of what they have accomplished and to reflect upon their achievements in order to develop inner wisdom that creates a sense of well-being.

Perfectionism can be unhealthy if it causes a child to set unrealistic standards that are so high they become impossible to meet. Excessive striving and checking for improvement to achieve perfection can be agonizing. Avoidance of trying new things or making mistakes are recognizable signs of perfectionism. A perfectionist feels anxious, fearing their work is never good enough. Subsequently, they feel they are not good enough.

10.2 Case Study #8: Paulina Perfectionist [1]

My name is Paulina Perfectionist. At twelve years old, I cried whenever I scored a wrong answer on a math test. Although I always completed my assignments ahead of the deadline, I would overthink everything and constantly revised what I wrote.

One day my teacher asked how I felt about working on my project. 'Paulina Perfectionist, does this project measure your entire worth? Are you setting goals that are impossible to achieve? If you can live with the results and feel good about yourself, then stop reworking the project and hand it in.' She explained that school was a place for students to grow and learn from their mistakes, not just a place to show what you already knew.

Although I wanted to do what was expected, I constantly thought of ways to change and improve things. Upon reflection, the advice I received from my teacher helped me to develop more realistic expectations. I realized I could never reach the high expectations I set for myself because they paralyzed me.

My teacher was reassuring, which helped me with my perfectionism. We worked together so I set a goal each day. At the end of the school day, we reviewed what I accomplished and discussed how I felt about it. Taking time to reflect and talk about my day helped me to put things in perspective. I learned to set realistic goals for myself that were within my reach. I then started to feel good about all that I was actually achieving.

10.3 High Expectations

Teachers should hold high academic expectations for intellectually gifted children in the classroom. However, it is important to set realistic goals that are within reach for the child to experience success.

Teachers should not confuse setting high expectations and striving for excellence with encouraging perfectionism in a student. Striving for excellence pushes a child to reach their goal of achieving peak performance, which can be a positive trait. On the other hand, perfectionism can be debilitating because it can produce anxiety and undue fear. In this case, it becomes difficult for a gifted child to feel good about themselves.

‘Agency,’ is a term that connotes a sense of selfhood. It is important that teachers and parents provide honest and informative feedback to help gifted children understand the influence they have on their own personal experiences. Agency is central to motivation and impacts many of the emotional and social issues gifted children encounter throughout life.

A gifted child who is a perfectionist can become very upset by the simple act of making a mistake. Teachers need to recognize their effort and help them to understand everyone makes mistakes because no one is perfect. Making mistakes is a normal part of the learning process and should not devalue the learner. By encouraging a gifted student to focus on their effort and growth in learning, teachers can facilitate a child taking pride in what they have accomplished.

10.4 Intervention Strategies for Teachers and Parents

3 Strategies for Perfectionism

1. Build Social and Emotional Awareness
2. Dispel Myths
3. Celebrate Uniqueness

1. Build Social and Emotional Awareness

Every individual needs to develop self-esteem and self-efficacy. However, gifted children know they are different than their classmates and are often challenged to acquire a realistic awareness of understanding their social and emotional needs.

Teachers

Teachers can arrange for a gifted child to meet with a school psychologist or guidance counselor who can work with them on developing social and emotional skills to develop their self-awareness. Gifted children need to understand both themselves and others. They need a safe place to talk candidly about their issues and concerns with a caring and knowledgeable adult who listens and respects their thinking.

Peer pressure and bullying are important topics to discuss with gifted children to help them develop insight into handling any negative situations that arise. Gifted children who do not find friends may suffer in isolation and hide their talents. As a member of a small group of gifted children, meeting with a school counselor on a weekly basis can be an effective way for sharing concerns and fears a child holds because they are 'gifted.' By providing opportunities for gifted children to interact socially with other gifted children in the classroom, teachers can help nurture friendships that contribute to the child's social development.

Many gifted children appreciate having time to informally talk with a professional who understands their exceptionalities. They need to learn survival skills, e.g., using eye contact, listening to others, becoming aware of not only what you said but how you say it, etc. Counseling can be of great benefit for a gifted child. It can help a gifted individual accept who they are and develop strategies for learning how to live with their own unexplainable or unusual behavior that causes others to view them as an outlier. For example, a highly, exceptionally and profoundly gifted child may be a perfectionist and be overly critical of others. They may become depressed because they experience 'tunnel vision' and view something only through their perspective.

Counselors who work with depressed gifted individuals can help them to develop a wider perspective of their experience. This can be accomplished by not only working with the gifted child to understand their behavior, but by discussing the consequences of their actions and the impact it may have on others. Developing personal insight is an important strategy that gifted children can use throughout their life.

Parents

Parents need to advocate for their gifted child. By insisting on educational services that promote high ability and interaction with other high ability children, parents can take advantage of the help school districts offer. When asking a school district to meet the appropriate educational needs of their exceptional child, parents create leverage for not only their gifted child, but, for other gifted children as well. Providing an appropriate level of learning helps not only a child's academic skills, but also their social and emotional needs.

Parents need to teach social skills to their gifted child at an early age. This is done through modeling appropriate behavior at home. Exposure to and

expectations of having good manners at home will carry over so their gifted child fits in with society. Learning to be respectful of others and understanding feelings are important life skills. Ideally, parents should be good listeners and have a good relationship with each other to model how to handle conflicts when they arise.

It should be mentioned that parents of highly, exceptionally, or profoundly advanced children benefit from the support of ‘access to experts’ and the companionship and contact of others who are in a similar situation to provide help [2]. Thus, the combined efforts of teachers, school guidance counselors, and parents all influence gifted students in helping them to understand and accept themselves.

Teachers and parents can also guide gifted children in their social and emotional development by encouraging participation in activities, classes, or competitions that interest them to find peers who share similar goals. They can assist gifted children in making connections that can hopefully lead to friendships. For example, a child who is a talented chess player may enjoy participating in a chess club to meet other children who share their interest. Or, a gifted student who is an avid reader may join a book club to discuss novels with a group of individuals who read on a similar level.

2. Dispel Myths

Gifted children who are perfectionists need teachers and parents to intervene and advocate for them. It is important that advocates accept their role of dispelling commonly held myths about giftedness. It is not only important for advocates to build acceptance and awareness within the gifted child, but in the school and community as well.

Teachers and Parents

As the primary advocates in the life of a gifted child, teachers and parents need to recognize myths about giftedness. They should educate themselves to be able to respond with truthful facts about why these are myths. Although working with gifted children can be challenging, don’t give up on them! It is important to offer many ways for gifted children to show you what you know and let them know you care. Following is a list of some commonly held myths [3, 4]:

1. All students are gifted
2. Gifted students have high ability in all academic areas (globally gifted)
3. Giftedness is wholly inborn
4. Students become gifted when parents push them
5. Gifted students will become eminent adults
6. Gifted students are not aware that they have advanced abilities
7. Gifted students’ emotional maturity is as advanced as their intellect
8. Gifted children are easier to raise than those who are not gifted
9. Educators will know exactly how to work with gifted students
10. Gifted students will make it on their own without special provisions.

3. Celebrate Uniqueness

Every gifted child is different. Because no two are alike, every child needs to feel understood, appreciated, and respected. Every gifted child deserves to be celebrated for their uniqueness.

Teachers and Parents

Teachers and parents demonstrate their understanding of a gifted child by respecting their individuality and recognizing both their strengths and weaknesses. As advocates, you can applaud the child's effort, achievement, and uniqueness. Because praise is not enough, it is important to focus on building a gifted child's self-esteem by recognizing their effort and work. This can be done by helping gifted children find real-world connections, matching them with mentors who can serve as role models and encouraging them to become involved in authentic work that provides an outcome for a real audience. Gifted children should be supported in their ability to persevere with courage and resolve. Many refer to this as 'grit.'

It is important for teachers and parents to encourage gifted children to live in the moment and pay attention to the present. By starting small and taking 'baby steps' toward making change, gifted children can learn to take control of their actions and thoughts in a fast-paced world. Dwelling on the past can cause sadness or depression, and worrying about the future can create anxiety. Finding their 'flow' by becoming actively involved with projects that serve a real life purpose can benefit an authentic audience and build self-esteem in gifted as well as all children.

10.5 A Note to Teachers and Parents

Now it is time to reflect upon the discoveries uncovered in your journey to the world of gifted education. Live mindfully. Become actively involved in your gifted child's life so they know you support them. In this way, a gifted child knows they can come to you during times of fear and failure. A gifted child may not remember what you said or did to build their self-esteem, but they will always remember how you made them feel. Look for ways you can celebrate the unique differences of every gifted child.

10.6 Landing Card

Congratulations! You have earned a Landing Card! By reading Your Passport to Gifted Education you demonstrated your interest in learning how to intervene and support gifted children. Your Landing Card highlights important teaching concepts covered in this book to serve as a reminder of all you have learned on this journey.

Table 10.1 Landing card

Landing card
1. Realize there is not just one definition of 'gifted'
2. Value the uniqueness of each gifted child
3. Understand 'gifted' is culture-specific and means different things to different people
4. Commit to an early identification of gifted children for optimal development
5. Recognize giftedness is a developmental advancement and that not all children are gifted
6. Identify various characteristics of giftedness to distinguish between a 'bright' and 'gifted' student
7. Implement strategies of higher order thinking skills (HOTS) based upon best practices in gifted education for all students
8. Set a 'motivational trap' to encourage learning
9. Group gifted children with their intellectual peers
10. Develop a 'growth mind set' in yourself and students
11. Differentiate content, product and process of teaching
12. Recognize there are different levels of giftedness
13. Provide enrichment and acceleration opportunities to extend learning
14. Focus on academic, social and emotional needs of each child
15. Help gifted children to socialize and find like-minded friends
16. Understand and prepare all gifted students for their future as lifelong learners

You are now prepared with knowledge and strategies that will enable you to effectively intervene and advocate for gifted children. Be confident that *you can* make a difference in the world for gifted children! (Table 10.1).

References

1. Klingner, R., & Leavitt, M. (2014). *Let it flow*. Germany: Lit Verlag.
2. Davidson, J., & Davidson, B. (2004). *Genius denied*. New York: Simon and Schuster.
3. Webb, J. T., et al. (2007). *A parent's guide to gifted students*. Arizona: Great Potential Press.
4. Winner, E. (1996). *Gifted students: Myths and realities*. New York: Basic Books.

Resource Directory

Aristle Gifted Institute (Hong Kong)

http://www.aristle-gifted.com/dgi/eng/ourteam2_vivian.html

Association for the Education of Gifted Underachieving Students

<http://www.aegus1.org/>

Athena's Advanced Academy

<http://www.athenasacademy.com/>

The Belin-Blank Center (University of Iowa)

<http://www.education.uiowa.edu/centers/belinblank/home>

Council for Exceptional Children (CEC, USA)

<https://www.cec.sped.org/>

The Davidson Institute (USA)

<http://www.davidsongifted.org/>

The Davidson Institute Search Database—Social Media

<http://www.davidsongifted.org/Search-Database/entry/A10563>

European Council for High Ability (ECHA)

<http://www.echa.info/>

Exceptional Needs Standards (Second Edition) National Board of Professional Teaching Standards

<http://www.nbpts.org/sites/default/files/documents/certificates/nbpts-certificate-ecya-ens-standards.pdf>

The Future Problem Solving Program International

<http://www.fpspi.com>

Gifted Education Australia

<http://www.giftedjourney.com/giftededucationaustralia.html>

Gifted Education Canada

<http://www.giftedjourney.com/giftededucationcanada.html>

Gifted Education Worldwide

<http://www.giftedjourney.com/giftededucationworldwide.html>

Gifted Phoenix (Global Gifted Education)

<https://giftedphoenix.wordpress.com/>

The Global Center for Gifted and Talented Children (Bavaria, Germany)

<http://www.begabungszentrum-bayern.de/>

Great Potential Press

<http://www.greatpotentialpress.com/>

Hoagies' Gifted Education (USA)

<http://hoagiesgifted.org/>

The Hong Kong Academy

<http://www.hkage.org.hk/>

Hong Kong Association for Parents of Gifted Children

<http://www.gifted.org.hk/>

I-GET Network (International Gifted Education Teacher Development Network, South Africa)

<http://www.iget-network.org/>

IGGY (The International Gateway for Gifted Youth, UK)

<http://www.iggy.net>

Johns Hopkins Center for Talented Youth

<http://cty.jhu.edu/ctyonline>

Listserves: *The Brain Café*, *Brilliant Chaos*, *Culturally Diverse Gifted*, *Davidson Institute for Talent*, *the European Council for High Ability*, *International Gifted Education*, etc.

Mensa International

<http://www.mensa.org/>

Links to Mensa groups in various countries

Mawhiba (The Kingdom of Saudi Arabia)

<https://kgsp.kaust.edu.sa/Pages/mawhiba.org.sa.aspx>

A Nation Deceived: How School Hold Back America's Brightest Students—The Templeton Report on Acceleration

https://www.templeton.org/sites/default/files/Nation_Deceived_Both_Volumes.pdf

National Association for Gifted Children (NAGC)

<http://www.nagc.org/>

Advocacy organization offering a wide range of publications and services

The National Research Center on the Gifted and Talented (NRC/GT, USA)

<http://www.gifted.uconn.edu/>

The National Standards in Gifted and Talented Education

<https://www.nagc.org/resources-publications/resources/national-standards-gifted-and-talented-education>

The New Zealand Association for Gifted Children

<http://www.giftedchildren.org.nz/wordpress/>

Prufrock Press

<http://www.prufrock.com/>

Stanford University's Educational Program for Gifted Youth (USA)

<http://epgy.stanford.edu/>

Summer Institute for the Gifted (SIG, USA)

<http://www.giftedstudy.org/>

Supporting the Emotional Needs of the Gifted, Inc. (SENG, USA)

<http://www.SENGGifted.org/>

Organization for counselor and parent training

Twice-Exceptional Online Newsletter

<http://2enewsletter.com>

Uniquely Gifted—Resources for Gifted Children with Special Needs

<http://www.uniquelygifted.org>

World Council for Gifted and Talented Children, Inc.

<http://www.WorldGifted.org>

Supports multicultural, collaborative research and improving worldwide communication

YouTube

Characteristics of twice-exceptional children—the Catholic Education Office, Sydney Online Learning <https://www.youtube.com/watch?v=VPqQJihP5dY>

Maureen Neihart, *Helping Twice-Exceptional Students Succeed: What works* (<https://www.youtube.com/watch?v=sYaQuo08MO8>).

Book

Tallent-Runnels, M. and Candler-Lotven, A. C. (2008). *Academic competitions for gifted students: A resource book for teachers and parents* (2nd ed.). Thousand Oaks, CA: Corwin Press.

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