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Through a Different Lens: Reflecting on a Strengths-Based, Talent-Focused Approach for Twice-Exceptional Learners

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Abstract

This study sought to understand the experiences of a cohort of students who entered a strengths-based private school for twice-exceptional students during middle school and successfully completed graduation requirements. Using a case study design, the researchers analyzed data collected from student and teacher interviews, parent focus groups, educational records, and psychological reports. Findings indicate areas of change and development across cognitive, emotional/behavioral, and social domains and identified five factors underlying student growth: psychological safety, tolerance for asynchrony, time, positive relationships, and the consistent use of a strengths-based, talent-focused philosophy. Data also revealed four benefits from the talent development opportunities offered by the school. Participating in talent development activities enabled students to become part of a social group; to overcome some social, emotional, and cognitive challenges in context; to develop ongoing mentor and professional relationships with people in talent areas; and to develop expertise in an area of talent. This research supports the incorporation of a strengths-based, talent-focused approach for twice-exceptional learners.

Keywords

twice-exceptional, middle school age, high school age, social and/or emotional development and adjustment

Eight years ago, an existing private school for gifted students with academic, social, emotional, and/or behavioral challenges implemented an alternative approach to traditional teaching practices based on a growing body of multidisciplinary research that cites the benefits of using a strengths-based, talent-focused philosophy. The school's program consisted of three key elements: The multiperspectives process model (MPPM), which is an explicit decision-making tool; the schoolwide enrichment model (SEM; Renzulli & Reis, 1997); and the contextualization and integration of skill development with differentiation that takes into account both strengths and weaknesses.

The purpose of this study was to understand the experiences of the first cohort of students who entered the school when the strengths-based, talent-focused approach was put into effect. By identifying ways this approach may have influenced student growth, the researchers hoped this study would add to the literature about creating effective educational programs for twice-exceptional (2e) students.^a

Background

Reviews of extant literature indicate that the 2e population has a unique set of educational needs. Four articles in the past 15 years summarized existing information and, taken

together, concur that research has centered primarily on the characteristics and identification of 2e students along with compensation and remediation techniques (Brody & Mills, 1997; Kalbfleisch & Iguchi, 2008; Nicpon, Allmon, Sieck, & Stinson, 2011; Nielsen, 2002). To a lesser degree, the articles addressed the social and emotional issues faced by these students as a function of their paradoxical syndromes. While programming options are described, there has been little research on the effectiveness of various approaches. Nicpon et al. (2011) note that “this research agenda must be a priority” (p. 14).

Although 2e students possess gifts and disabilities simultaneously, the two exceptionalities are often addressed separately in educational settings (Assouline & Whiteman, 2011), with little regard for the influence one exceptionality may have on the other (Schultz, 2012). For example, as Schultz argues, 2e students may not have received necessary accommodations for success when participating in an advanced

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honors course. Furthermore, Crim, Hawkins, Ruban, and Johnson (2008) found that because of the federal mandate to serve students with disabilities, 2e students were more likely to receive deficits-based services than talent development or gifted programming.

Theoretical Framework

Traditionally, schools have tended to serve the needs of these students by first trying to remediate the deficits through a variety of programs and settings (Assouline & Whiteman, 2011; Crim et al., 2008). From a distinctly different perspective, the field of positive psychology argues that a primary focus on the disability or problem offers only a limited understanding of a student's potential (Peterson, 2009). Rather than placing attention primarily on correcting weaknesses, positive psychologists recommend adopting research-based interventions that build competency by focusing on and amplifying strengths (Terjesen, Jacofsky, Froh, & DiGiuseppe, 2004). "Treatment is not just fixing what is broken; it is nurturing what is best" (Seligman & Csikszentmihalyi, 2000, p. 7).

Many researchers agree that 2e students require an approach that encompasses attention to high potential and talent areas as well as areas of deficit (Assouline & Whiteman, 2011; Baum & Owen, 2004; Brody & Mills, 1997; Nicpon et al., 2011; Reis, Neu, & McGuire, 1995; Schultz, 2012). Studies from the field of gifted education, applying gifted education strategies with nontraditionally gifted students, have provided evidence to support this position (Baum, Cooper, Neu, & Owen, 1997; Olenchak, 1995; Oreck, Baum, & McCartney, 2000; Reis, Schader, Milne, & Stephens, 2003). The commonality across this research is the presence of a talent focus. Although recognizing that some or all of the elements in a traditional approach of providing remediation, compensation strategies, and social skills classes for struggling learners can show some success, collective findings from positive psychology and gifted education suggest using a different lens—away from remediation as the primary emphasis to a model based on what clinical professor of psychiatry Daniel Siegel (personal communication, May 31, 2013) suggests—using "strengths as the entry point." The combination of positive psychology and the talent development approach validated through gifted education research formed the theoretical foundation for the school's philosophy and programming.

Method and Procedures

To understand what students experienced, the researchers employed a case study research design. Merriam and Simpson (1995) define *qualitative case study* as "an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community" (p. 108), looking holistically and in-depth within a particular context, and reporting descriptions of the contextual

influences on the individual or program under investigation. Case studies examine individuals' experiences within one "bounded system" (Merriam, 1998) and provide a thorough understanding of the particular, which is transferred when the particular is recognized across similar or diverse contexts (Stake, 2010). This investigation involved a bounded system of one cohort of students in one particular school.

For the purpose of this study, these operational definitions were used:

- "Strengths-based" is defined as curricular and instructional approaches that are differentiated to align with students' cognitive styles, learning preferences, and profiles of intelligences.
- "Talent-focused" involves ongoing identification and recognition of a student's advanced abilities as well as budding interests, along with explicit options for exploring and expressing those abilities and interests within and outside the curriculum. *Talent focus* is used as an overarching term that includes "talent development."
- "Talent development" refers to encouragement and support of identified talents and abilities that are nurtured in their own right—neither as an opening for remediation nor as a reward or motivator for achievement.

Setting

The research took place in a private, college preparatory school for 2e students in Grades 6 to 12 with class size limited to between 8 and 12 students. The school's professional staff included an educational therapist; a school psychologist; a part-time director of professional development, who is one of the authors of this study; and teachers with expertise in their own discipline areas (i.e., published authors, experienced musicians, and accomplished scientists) but not necessarily with special education or gifted education credentials.

Participants

The focus of the study was to understand the experiences of a cohort of students who were the first for whom the school's philosophy was implemented. The 10 students (eight males and two females) that entered in middle school and completed graduation requirements by 2011 were included in this research. Throughout this article, the participants are identified using pseudonyms to protect their anonymity. Table 1 provides the students' pseudonyms, information about age and grade level at entry to the school, as well as the reasons cited in exit interviews for students who left the cohort. All students came from middle to high-socioeconomic status families; only one was not Caucasian.

Acceptance at the school required that each student submit a comprehensive psycho-educational report with scores

Table 1. Students Entering Middle School.

Student code	Pseudonym	Age at entry, years	6th grade entry	7th grade entry	8th grade entry	Grade left cohort	Reasons cited for leaving
S1	Mark	11	X				Graduated
S2	Beth	11	X				Graduated
S3	Jacob	11	X				Graduated
S4	Peter	11	X				Graduated
S5	Amy	11	X				Graduated
S6	Lucas	11	X				Graduated
S7	Paul	12		X			Graduated
S8	Brian	12		X			Graduated
S9	Michael	13			X		Graduated
S10	Andrew	13			X		Graduated
S11			X			9th	Repeated 8th grade and graduated the following year
S12			X			8th	Desired larger social environment and school with more sports
S13			X			10th	Financial reasons; chose mainstream school with Special Education options
S14			X			8th	Wanted to be at mainstream school
S15				X		9th	Financial reasons
S16				X		10th	Wanted a larger, mainstream school
S17					X	11th	Needed new environment at both home and school; went abroad

documenting both high abilities and diagnosed disabilities that affect learning. As prospective students, each visited the school for in-depth interviews and participated in classroom sessions where teachers observed their responses and interactions. Gifted potential was agreed on by the admissions committee based on a synthesis of test scores, interviews, and observations.

All students had documented evidence of superior intellectual ability on The Wechsler Intelligence Scale for Children (WISC), either the WISC III (Wechsler, 1991) or the WISC IV (Wechsler, 2003). Full Scale scores ranged from 120 to 149; Verbal Comprehension scores ranged from 110 to 150; and Perceptual Reasoning ranged from 106 to 142. Diagnoses noted in psychological reports prior to entry

included the following^b: attention deficit hyperactivity disorder (ADHD; $n = 6$); Asperger's syndrome^c ($n = 3$), with three additional students noted as having "Asperger's-like" behaviors; obsessive-compulsive disorder (OCD; $n = 2$); oppositional defiant disorder (ODD) ($n = 2$); generalized anxiety disorder (GAD; $n = 4$); Tourette syndrome ($n = 1$); and major depressive disorder ($n = 1$). The reports also indicated weaknesses in executive functioning, processing speed, working memory, and/or written production for the majority of students. Prior to acceptance at the school, all but two of the students had been receiving therapies and services to address their respective needs. Seven were taking or had taken some form of medication to address combinations of inattention, hyperactivity, anxiety, and/or depression. Even with these supports in place, no student had been able to thrive in previous school environments.

The cohort of students shared identification as 2e, yet their combination of gifts and disabilities was individual. All of the students graduated from the school, but their development and progress varied. The short descriptions of the participants, compiled from admissions folders, psychological reports, interim progress reports, and cumulative folders provide an understanding of the range of unique challenges and needs, along with a sense of the commonalities within the group.

Brian: Brian suffered from GAD, which manifested in his inability to speak or interact with others. Also diagnosed with dysgraphia, he had a difficult time producing written material and had performed poorly in public school despite an IQ in the superior range, standardized achievement test scores above the 98th percentile in all subject areas, and extraordinary skills in computer technology. By high school, Brian had been accelerated in math, science, and technology. He graduated a year early, deferring admission for a year to a well-respected school of engineering to serve as a research assistant to scientists at California Institute of Technology.

Peter: According to psychological reports, Peter was diagnosed with Asperger's syndrome at age 3. He scored in the superior range on the WISC IV, but professionals projected that he would always have difficulties with socialization and group settings. Deficits were also noted in executive functioning and motor planning. When he entered the school, he was seeing an educational therapist weekly to help with writing skills and organizational difficulties. By graduation Peter excelled in writing, drama, and drumming. He was accepted at five colleges.

Lucas: A victim of panic attacks and bullying in previous schools, Lucas resorted to cutting (self-mutilation with a sharp object). His sensitivity to the injustices of the world caused high levels of anxiety. At the time of entrance to the school, Lucas was taking medication for anxiety and was attending weekly counseling sessions. Scoring in the 93rd percentile on Verbal Comprehension Index on the

WISC III, Lucas also had specific learning disabilities in written production, organization, and math. His academic challenges, although diminishing each year, continued throughout high school. By graduation, he was accepted into a school of music as an emerging professional musician.

Andrew: Diagnosed with Asperger's syndrome, ODD, and ADHD Inattentive Type, Andrew had been hospitalized for depression and then homeschooled for a year prior to entering the school. Despite scores in the superior range on both the Verbal Comprehension and Perceptual Organization indices on the WISC III, his poor handwriting and his attention and sequencing difficulties were ongoing obstacles to success. By the end of high school, as documented in his psychological evaluation, Andrew's friends, teachers, and peers all noticed his keen wit and intense interest in technology and video games. He was accepted into five universities, planning to major in science and technology.

Jacob: Jacob had diagnoses of ADHD, OCD, dysgraphia, and Tourette's syndrome. Entering this school, he was anxious, depressed, fearful of change, often oppositional, and taking a mix of prescription medications. He scored 138 on the Verbal Comprehension Index of the WISC III. Although it was noted that Jacob was highly gifted in reading and writing, he often refused to complete assignments. By his senior year, Jacob was regarded as a leader. Already accepted through early action at two notable liberal arts colleges at the time of his interview, Jacob was looking forward to hearing from other schools.

Paul: Paul's psychological reports indicated diagnoses of ADHD and dysgraphia and severe problems with processing speed and working memory resulting in an inability to memorize information and write fluently. Performing in the superior range on the WISC III, Paul scored in the 99th percentile on the Verbal Comprehension Index. Creative, humorous, and socially adept, Paul often used these abilities to avoid tasks. He barely met academic requirements for graduation but was accepted to a state university.

Mark: Diagnosed with ADHD and OCD, Mark experienced difficulties with executive functioning, anxiety, impulsivity, and visual motor integration. Performing in the superior range on the WISC III Full Scale, he scored in the 99th percentile on the Verbal Comprehension Index. Throughout high school, Mark floated ideas for entrepreneurial ventures. He did not complete his college application on time (later receiving acceptance to a local college), choosing to start a video filming company directly after graduation.

Michael: Michael was diagnosed with Asperger's syndrome, OCD, and ADHD. His records noted extreme cognitive rigidity and social immaturity. His superior intellectual abilities on the WISC III along with excellent academic performance led to acceleration in seventh

grade. However, his emotional issues increased, and he began to struggle with productivity. He required an extra year to finish all the requirements and was then accepted to a drama program in a state university.

Amy: Academically advanced but diagnosed with autism, Amy had difficulty staying focused and transitioning from one task to another. She was rude and abrasive to faculty and peers. She skipped eighth grade and graduated a year ahead of her peers, receiving a scholarship to attend a noted women's college; however, her parents insisted on declining the offer. Amy then attended a local community college and continued to visit the school frequently during that year, spending time with the school counselor and friends from her original cohort.

Beth: With diagnoses of Asperger's, ADHD, ODD, and GAD, Beth had been seen by three therapists, was taking medication, and was enrolled in a social skills class when she entered the school. Her highly variable WISC III profile ranged from a score of 147 on Perceptual Organization Index to a low of 69 on the Freedom From Distraction Index. She was a voracious reader, adding insightful comments during discussions, yet only on her own terms. Her defiance led to standoffs with peers and faculty. By her senior year, Beth had completed most of her assignments on time but continued to need support with writing. Her talent in art flourished during high school resulting in her acceptance by a well-known college for the arts.

Denzin (2006) suggests extending participants to include other stakeholders, therefore we also included information from parents and teachers who taught these students at different grade levels, as well as staff members who witnessed the students' growth from middle school to graduation.

Program

Multiperspectives Process Model. To create the highly supportive program, faculty and staff developed a team decision-making model (Figure 1) that synthesized important elements critical to understanding 2e students. Starting from a strengths-based, talent-focused philosophy, use of the MPPM encouraged collaboration among the professionals working with the students and their families that resulted in a cohesive, consistent approach where the different perspectives were considered and aligned. To assure fidelity to the model, an enlarged, visual diagram of the MPPM was used at team meetings in order to guide discussions.

The MPPM is best described as student-centered. Both the talents and challenges of 2e students are viewed simultaneously, highlighting the dynamic interplay between and among five critical variables gleaned from research on 2e learners and experience. The variables are gifts, talents,

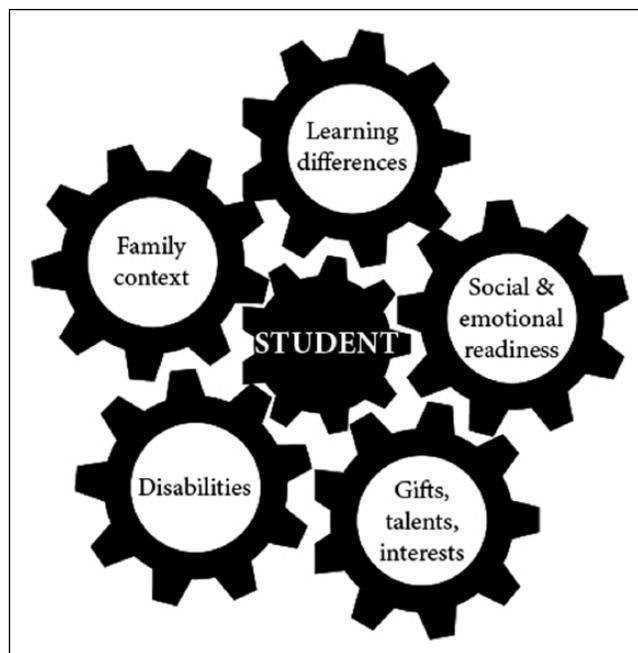


Figure 1. The multiperspectives process model.

and interests; learning differences; social and emotional readiness; disabilities; and the family context.

Gifts, talents, and interests: This variable is always considered first. Its priority stems from knowledge that such a focus opens avenues for engaging student attention (Gardner, 2004) and finding avenues for them to develop positively (Neihart, 2002; Seligman & Csikszentmihalyi, 2000).

Learning differences: Style differences (personality, cognitive, multiple intelligences profiles, and learning styles) affect how 2e learners process information and organize their lives (Baum & Owen, 2004; Gardner, 2004; Silverman, 1989). Because a strengths-based perspective requires careful attention (Tomlinson, 2004), the MPPM team uses students' profiles to align instructional goals appropriately.

Social and emotional readiness: Social and emotional well-being is foundational for good learning to take place. Psycho-social and emotional issues are prevalent in students with dual diagnoses (Assouline, Nicpon, & Whiteman, 2010; Moon, 2002; Reis & Colbert, 2004; Webb et al., 2005). Twice-exceptional students tend to be anxious, as well as socially and emotionally immature (Baum, Dann, Novak, & Pruess, 2009; Eide & Eide, 2006). These issues may compromise their readiness to cope with age- or grade-level demands. For these reasons, readiness is weighed carefully by the team.

Disabilities: This variable represents students' individual diagnoses. It becomes important to grasp the neurological, psychological, and physiological manifestations of a syndrome(s) and how the families have chosen to address the disabilities outside the school setting (Brody & Mills, 1997; Webb et al., 2005). To assure understanding of how outside interventions may be affecting a student's performance at any given time, the school maintains regular communication with families and therapists.

Family context: Families of 2e students often bring a past history of problematic relationships with school communities. The resulting parental anxiety, lack of confidence in dealing with teachers and staff, and overarching concern about their child's future success can have a negative effect on a student's performance and school adjustment (Baum & Owen, 2004). In addition, a parent's expectations may not match those of the school, causing additional conflict. Ongoing communication and resources are provided to help parents more effectively support their child beyond the school day, as well as to invite parental participation on the educational decision-making team.

By taking these five variables into account, the MPPM model offers a consistent framework for faculty and staff discussions about ongoing curriculum development, instruction, and enrichment for each student. It also serves to inform conversations about appropriate services, specific interventions, and other opportunities that might be offered. When generating solutions to a problem, the team begins by looking for multiple explanations to provide insight for the behavior. For instance, if a student is refusing to complete work, questions could be the following: Is the work at the student's intellectual level? Does the student have talent development opportunities on a consistent basis? Is the work in the classroom dually differentiated to address both strengths and deficits?

Schoolwide Enrichment Model. Elements of the SEM (Renzulli & Reis, 1997) are used to offer a continuum of services to students that may include enrichment, acceleration, and talent development options both within and outside the academic curriculum. Curriculum is aligned to student readiness, interests, strengths, talents, and learning profiles. Electives and talent development include opportunities in performing arts, writing, debate, engineering and design, technology, enrichment clusters, service learning, advanced art, and independent study. Such opportunities are a critical part of the program and are not considered extracurricular.

Contextualization and Integration of Skills Development. To address the learning differences of the students, teachers design curriculum units using the three types of enrichment activities described in the enrichment triad model (Renzulli, 1977), an integral part of SEM. This model allows for a

variety of ways to introduce students to and engage them in a topic (Type I activities). Using field trips, film, speakers, and demonstrations as entry points to a unit, students with difficulties in reading or processing are offered multiple ways to access the curriculum. The second kind of experience (Type II enrichment) is the purposeful articulation of targeted skill instruction within the context of the topic. These skills include "learning how to learn" (executive functioning and self-regulation skills), critical and creative thinking, communication skills, affective learning (emotional regulation), and skills of the discipline. Within each content unit particular skills are targeted, taught explicitly, and then reinforced in future units of study. For instance, "backward planning" might be taught as a "learning how to learn" skill if the culminating activity of the unit is a long-term project. Finally, to assess learning, units often conclude with some sort of authentic creative product or performance (Type III). Using the enrichment triad model as a template for planning allows the curriculum to be dually differentiated, which means that both gifts and learning differences are addressed simultaneously. Students are provided challenging content *and* offered alternative ways to access the advanced content along with choices for how they communicate what they have learned.

Other opportunities for contextualization of skill development exist within both enrichment and talent development. For instance, at this school, all middle school students take drama to explore their interest in that discipline and, more important, to learn social skills, which are naturally embedded in the performing arts (i.e., awareness of emotional context, understanding emotions of others, communicating, using tone of voice effectively). Contests, competitions, performances, and other opportunities in self-selected areas of talent provide yet another platform to teach backward planning, meeting deadlines, appropriate behavior in public, and teamwork. In these cases intrinsic motivation and authentic contexts enhance the students' willingness to stay in the struggle, become aware of expectations, and find ways to regulate behavior.

Professional Development. The faculty received extensive training in the use of this model. Both schoolwide development and individual professional development were provided on a monthly basis during the years of this project. The director has extensive background in the model and has been influential in its use with 2e students. Beginning in 2008, an additional consultant, known for her work in curriculum and the SEM, provided teacher training and curriculum support several weeks per year. Because all units were to be designed using the enrichment triad model, the curriculum consultant, the director of professional development, and the directors of both the middle and high school created curriculum templates for faculty to use when designing units. Faculty submitted their unit plans and were given feedback on both the

content and the use of the enrichment triad model by their directors.

Data Collection

Data collection included retrospective, semistructured video and audio interviews with students, teachers, and parents and a focus group with students and parents conducted during the students' senior year. Data were also collected from the students' permanent folders, including psychological reports, parent correspondence, and admissions information, as well as college letters of application and acceptance and photographs of school social life.

Interviews with open-ended questions, ranging in length from 60 to 90 minutes, were designed to gain direct access to participants' experiences (Schwandt, 2001). A purposeful sample of teachers and staff who had worked with these students were interviewed, including the sixth-grade teacher, an English teacher who taught this cohort for both freshman and senior year, a history teacher who also taught these students for a minimum of one class, the music teacher, and the art teacher, as well as the director of middle school. Parents representing six of the cohort accepted the invitation to attend the focus group. Questions guiding student interviews, the parent focus group, and teacher and professional staff interviews can be found in Appendixes A, B, and C.

When needed, the researchers met with the administrative staff to confirm initial impressions. Researchers were also given access to information systematically collected by the school to track student growth including semiannual progress reports, notes from parent meetings, e-mail, and portfolios of student products. The educational therapist maintained files with educational plans and notes from MPPM meetings, including problems and subsequent actions. As suggested by Hodder (1994), these materials provided meaningful evidence of the academic and social culture experienced by the students.

Data Analysis

The data analysis team consisted of three researchers. As noted previously, the first author, who worked part-time at the school, was integral in contributing to the evolution of the model, classroom practices supporting the model, and teacher training. The other two members of the team are qualitative researchers with expertise in the education of at-risk gifted learners. The team selected inductive analysis as the strategy for analyzing and interpreting the data. Such an approach involved examining the data closely in search of categories or themes within the phenomena under investigation, followed by a search for relationships among the categories. The work of Miles and Huberman (1994) served as a guide in the process of coding and analyzing the varied documents and interviews. In coding, the researchers examined the data to identify similar patterns, recurring ideas or

phrases, and commonalities or differences between and among segments of data. As a team, the researchers systematically organized codes with agreed-on phrases that identified similar patterns or themes (Bogdan & Biklen, 1998). This coding procedure compacted data into equivalent categories and enabled the organization and management of meaningful components (LeCompte, 2000). The codes served as analytic tools that explained the data, allowing the researchers to examine them from multiple perspectives, to reconstruct them, and then to hypothesize further about the meaning of the data (Coffey & Atkinson, 1996).

The preliminary stage of coding was followed by an in-depth examination and discussion of single cases in the data that included triangulation with multiple sources and served to expand, as well as illuminate and confirm, the initial codes. Coffey and Atkinson (1996) indicated that this strategy shifts the data analysis process toward interpretation because coding is "about breaking the data apart in analytically relevant ways" (p. 31) in order to ask further questions of the data.

The third stage of analysis involved the examination of data through a display of diagrams of the codes to examine the composition of each data set (Huberman & Miles, 1994). The diagrams helped structure information into a compact, accessible format. The researchers then determined meaningful patterns and identified areas of consistency between two or more patterns or themes within the data. Through this process, they gradually established generalizations that explained the consistencies. To conclude the analyses, these generalizations were compared and contrasted with other published literature on the emerging themes.

This analytical process can be understood through the graphic in Appendix D. In the first stage of coding, similar patterns, commonalties, and recurring ideas were labeled using term such as *anxious*, *worried about peer relationships*, *traumas*, *intensity*, *weak in seeking out others*, and *not comfortable in social settings*. In the second stage of analysis, the researchers collapsed these codes under one category labeled *anxiety*. As a second example, labels such as *optimistic*, *cooperative*, *developing young adult*, and *proud* were collapsed to form the category labeled *confident*. In the next stage of analysis, involving a closer examination of the interviews and documents, the researchers noted that relationships existed between and among these dichotomous concepts, and they were eventually merged into a category labeled *emotional/behavioral growth*. Two other categories were identified, leading to a major theme of student growth.

Researcher Subjectivity Considerations

The researchers examined their subjectivities and the effects on their data, acknowledging the sentiments of Bogdan and Biklen (1998) as they explained that "no matter how much you try you cannot divorce your research and writing from

your past experiences, who you are, what you believe and what you value” (p. 34).

During professional teaching careers in K-12 schools, two of the researchers had worked with 2e students in their classrooms and planned collaboratively with specialists to address student needs. All three researchers, as former teachers and as parents, had observed the educational obstacles and psychosocial issues that 2e students face during various stages of development. In addition, as university faculty members, the researchers had extensive experience working with 2e college students. All three researchers were graduates of a doctoral program in gifted education known for its focus on a talent development approach.

To establish the trustworthiness of the study, and to control for bias in interpretation, several strategies discussed by Marshall and Rossman (1989) were used. The researchers reflected on their subjectivities throughout the research process, taking note of times when they identified with what the participants were saying, and made every attempt to keep their subjectivities in check. They also combed through the interview transcripts and field notes looking for times when they may not have identified with what the participants were saying and, consequently, may not have probed thoroughly enough for additional information. In such instances, the researchers made it a point to ask participants for more detail or clarification. Finally the researchers not only sought to substantiate findings through triangulation but also relied on reaching consensus when opinions differed.

Findings

The data collected from students, parents, teachers, and specialists provided strong evidence of three primary themes: student growth, factors contributing to that growth, and benefits of talent development.

Student Growth

When comparing student documentation at the time of school entry to descriptions and documentation at graduation, the researchers noted positive change for all participants; however, each student’s change was manifest in individual and irregular ways. The students differed in how they handled the pace of the program, they differed in the amount and type of support required, they differed in maturity, they differed in their talent levels, and they differed in their ability to compensate for their disabilities. Three student examples represent the variability of growth patterns^d. Some students required specific interventions and therapies in addition to those provided in school; for others, the severity of disabilities and circumstances made progress more difficult; and for still others, learning was more predictable and steady.

First, representative of students who required more interventions and therapies in addition to the school, Student A required major changes in his program. Midyear 8th grade,

he was so disruptive that in a meeting using the MPPM, the team, including the school head and his parents, agreed on a drastic move. Student A was removed from the school to attend a special program for students with his particular disability. He returned at the beginning of ninth grade. As a high school student, he was then eligible to join the jazz band, which became a strong social and interest motivator for him. Gradually Student A began to engage, gaining competence and confidence not only in music but also in most of his academic courses. At the beginning of 10th grade his Individualized Education Program report noted As and Bs in all subjects with particular comments about his high levels of analytic thinking and class participation, even though the report also stated that he still needed prompts for staying on task. By 12th grade, even these issues had dissipated.

For some students, circumstances made progress more difficult. Student B, highly talented as an actor and liked by all his classmates, rarely arrived at school on time and was frequently absent. This student was dealing with multiple, long-term family health issues. The constant upheaval at home and high levels of stress from always having to catch up caused friction throughout his school experience. The continued absenteeism was a major factor in having him reevaluated in fall of 2010 along with “ongoing bouts with depression, insomnia and frequent episodes of despair” (psychological report, October 28, 2010, p. 1). Mixed messages from his parents about priorities also added complexity to the problem. Regardless of his learning disabilities, they were convinced that an arts public high school for drama would be the best fit. The student, however, wanted to stay at this school where he felt accepted. Yet when he focused on his drama performances at school, the parents became concerned about his incomplete assignments.

All of these rehearsals have made [my son’s] ability to get all of the work and SAT stuff pretty impossible for him and for me. I’m so frustrated that I can’t help him. He hasn’t missed a rehearsal and I know that has helped him cope with all the sadness at home and upheaval at home and not having his father with us right now, but it has also hurt his ability to just have time to focus on so much else. It’s all just too, too much. (Parent communication to school, November 30, 2010)

Even with strong teacher support, Student B was able to barely meet academic requirements for graduation. Above-average scores on his SAT gained him acceptance to a local university where he would major in drama.

For some students in the group, growth was more consistent. During his senior interview, Student C reminisced about his issues when he first came to the school in sixth grade, “I wasn’t aware of how I came off to other people. I had problems writing, organizing my thoughts, taking notes. I basically had no notes. My parents were both writers. I had a problem adapting to new situations” (individual interview, February 24, 2011). By ninth grade, his progress report

showed he was “a calming force in the classroom” (progress report, May 15, 2008). That same year he began to achieve in drama, with starring roles all through high school, and he also began drumming. His music teacher commented that he “is a natural with the drums, and more importantly a leader” (individual interview, December 12, 2011). Despite mild difficulties with pragmatic language due to his high-functioning autism diagnosis, Student C continued to improve academically, and by his senior year he was performing above grade level in all academic areas. He was accepted to college where he planned to major in psychology.

The theme of student growth was found in three developmental domains: cognitive, emotional/behavioral, and social.

Cognitive Growth. Prior to this school, these students had been defined by their deficits. They showed little motivation or productivity. At the time of application, no student was having a positive school experience. Before coming to this school, “I was overwhelmed, disorganized, frustrated in school,” explained Michael (individual interview, February 23, 2011). Similar sentiments were echoed by all 10 of the students. Their sixth-grade teacher said during that first year, it was “a fight to get them to produce anything” (individual interview, November 26, 2011).

Initially these youngsters were rigid in their thinking, each to varying degrees. The students with Asperger’s syndrome and those who were classified as obsessive-compulsive tended to be rule-bound and easily upset by changes in routine or procedures. When Michael was asked to make any adjustment “he would explode,” explained the high school director (individual interview, December 9, 2012).

Over their years at this school, students became more productive, particularly when engaged in their areas of interests and strengths (even if homework was not always submitted on time). The students also began to participate and make progress in classes outside their main interest areas. Andrew marveled at his growth, “I now write papers that I never would have started. I even complete projects on time” (individual interview, February 23, 2011). His psychologist also commented on growth:

His early years were characterized by weak attention and impulse control. Academic difficulty and peer teasing were continual through elementary and into middle schools. Although diagnosed and treated both for attention and anxiety disorders, he showed little progress. His placement at this school has brought great success in both domains . . . [Andrew] is a remarkable young man who has made remarkable gains both socially and academically over his last two years. (Psychological evaluation, April 2009)

Emotional/Behavioral Growth. When these students entered middle school, they spoke of feeling hopeless and different from their age mates. Many were highly anxious and depressed. The teachers recalled that as a group the students

were oppositional and defiant. They disliked each other and often refused to cooperate under any circumstance. The middle school director commented that the emotional turmoil of this cohort in their early years at the school had a profoundly negative effect on their learning.

At times our resources were just exhausted. All of the energies of the therapists, teachers, and staff were spent on dealing with behavioral issues. There wasn’t time to teach content. It was a struggle to understand that the time spent dealing with these issues during these early years would be productive down the road. (Individual interview, December 14, 2011)

Manifestations of anxiety varied across the group. For some it was extreme inhibition. For example, Brian explained in his college application essay:

When I was younger, I never spoke a word to anybody. This was beyond garden-variety shyness—there were many people I knew and saw every day that had genuinely never heard my voice. Despite my best efforts to interact with people around me, I found myself compulsively trying to become invisible. In a classroom setting, I managed to quietly exist in the background. The moment attention was called to me, though, I would spring shut like a very quiet bear trap. I wanted to talk, but simply found myself unable—it was a huge handicap . . . At the time, I had no idea how to change this. Years later, I’m a thousand times more outgoing. Looking back on how this came to be, it now looks a lot like a set of scenes from a delightfully corny inspirational drama. (Written correspondence, April 2, 2010)

For some, the anxiety manifested in a sense of hopelessness. As Andrew explained,

I was a mess with no future. I had just been released from a psychiatric hospital. I didn’t want to go to school. Learning was not for me. I was a social recluse who escaped by reading and playing video games. (Individual interview, February 23, 2011)

By graduation, students in the cohort described themselves as confident, hopeful, and looking forward to the next phase of their lives. Andrew characterized himself as

accomplished. I have accomplished things I never thought I would. And I know I will continue to accomplish. My mom is really proud of me now . . . because I was able to come from where I was 5 years ago to where I am now . . . a mature and developing young adult who can handle responsibility. (Individual interview, February 23, 2011)

Social Growth. Prior to attending this school, most students revealed they did not have friends, often felt isolated, and did not adhere to social conventions. Those with Asperger’s syndrome were particularly limited by their inability to understand and navigate the social world. The difficulties clustered around a lack of awareness of their place in the world and how they fit into it. They frequently alienated those around

them. Beth used the word “oblivious” in explaining her early perceptions:

I was not born with knowing how to interact with other people. And I didn't know what to do. I didn't know how to play with the other kids. I didn't even know that I didn't know how to play with them. (Individual interview, February 24, 2011)

The students talked about how much they disliked each other initially. Their individual behaviors (i.e., arguing, criticizing, screaming and yelling, being sarcastic and opinionated, even bullying) served to keep them separate. Jacob explained, “The kids were angry with each other much of the time. No one liked anyone very much” (individual interview, February 22, 2011).

Changes began to be noticeable as the cohort entered high school. Several reported making a conscious decision to get along. Lucas explained, “We all hated each other at first because we were so similar and so different. We began to lighten up in 8th grade. In 9th grade we started to gel” (individual interview, February 24, 2011). Several students in the cohort explicitly acknowledged that over the years they had become a tight-knit community, highly supportive of each other.

For others, coming out of their shells and becoming more confident were markers of their social growth. Brian emerged from being a social recluse to being an active participant in a series of enrichment activities, including his role as the sweet maiden Thisbe in a performance of *Midsummer's Night Dream*. He was captured in a photo as a 6 ft 4 in. young man in a princess dress with a long blonde wig and prominent Adam's apple (photograph, January 2009).

Factors Contributing to Student Growth

Five factors emerged as critical to the students' overall development: (a) a psychologically safe environment, (b) time (allowing for changes to take place without rushing or demanding), (c) tolerance for asynchronous behaviors, (d) positive relationships (with faculty, staff, peers, family, and professionals), and (e) the strengths-based, talent-focused environment (based on a growing awareness of each student's individuality). Of major importance, these factors were shown to be interconnected and interdependent.

Psychologically Safe Environment. Students described their prior school experiences using words such as “shamed” (individual interview, February 23, 2011) and “excluded” (individual interview, February 24, 2011). At this school, they gradually began to feel safe. As Lucas pointed out, “We were treated badly in other environments. [This school] allowed us to get our confidence back” (individual interview, February 24, 2011). Andrew described this school as “like other high schools but more relaxed. It provides a friendly place to socialize and grow with other people. It lets you blossom into what you can be” (individual interview, February 23, 2011).

The cohort's sixth-grade teacher talked about creating a welcoming environment. She noted it was important for students to find self-acceptance.

Children come here with baggage and you need to give them the opportunity to look at their issues. At [the school] we find out what the students need and then deliver it. It's about consistency and making sure the students know that we want them here. (Individual interview, November 26, 2011)

Tolerance for Asynchrony. Creating a psychologically safe environment required that teachers embrace tolerance and patience, especially for the students' asynchronous behaviors. Beth explained the dilemma:

Mentally I'm probably 2 or 3 years ahead of most kids my age, but socially I'm probably 2 or 3 years behind. So I'm stuck in this sort of weird time-warp thing where I'm at the same time younger and older than kids my age. I mean socially I've come much closer, but still, I needed those years to catch up. And that's what a lot of kids at this school are like. They need those few breathing years. It's like you need those healing years. (Personal interview, February 24, 2011)

Many teachers talked about the need for patience in working with these students. They said it was important to remember to meet them where they are at any given moment and to keep remembering that the students need time for growth.

Time. Time was a critical factor in the students' development. As growth was allowed to take place without rushing, or demanding that students perform at grade level, the students were able to come to terms with extreme anxieties and developmental asynchronies. “The main thing about [this school],” recalled Andrew, “is that “it gives you time to grow socially and learn how to control your whatevers” (February 23, 2011).

The music director explained that when he was first hired, he was told that he would need patience with this group of children and to understand that as the students began to trust the environment, they would be able to perform at a rate commensurate with their abilities. He explained that this advice had served him well over the years, and gave an example of Brian in seventh grade during drumming class:

Brian would sit in the circle with his arms over his head and turn himself into a ball with his face down on his lap. His anxiety kept him from being an active participant. Even though he improved somewhat, Brian was not ready for the class's year-end coffee house live event, but he did want his work to be there. He composed his own piece of music and recorded it on techno track and sent it in so it could be played in public. Years later, Brian performed on stage in front of a live audience of over 100 people. It just took time. (Individual interview, December 12, 2011)

Positive Relationships. Patience and understanding by teachers helped forge positive relationships among students, staff, and parents. The high school history teacher explained, “These

kids are quirrier, they're more interesting. Some of the things they come up with are out of left field, but oftentimes brilliant" (individual interview, February 20, 2008). Students acknowledged how easy it was to talk to the teachers about problems. "[The high school director] was my advisor and she was always there for me. She could tell when I was having a bad day," said Amy (focus group, March 1, 2011). During a focus group discussion, parents commented on how much the teachers seemed to truly like their child, even though he or she could be exasperating.

Strengths-Based, Talent-Focused Philosophy. Finally, appreciation of the strengths-based, talent-focused approach echoed throughout the interviews. The focus on student capacities offered hope for parents. Jacob's mother described her first meeting with the school's admissions director:

It was very clear that they were looking for the strengths of the kids. . . . I fell apart and started to cry because nobody [else] had. Everybody had pathologized Jacob and said what was wrong with him. We needed a place that would say what is right with him. (Focus group, March 1, 2011)

While recognition, encouragement, and opportunities to grow gifts and talents were shown to be critical in the students' development, learning how to integrate a student's talents, strengths, and interests appropriately within the curriculum proved to be of equal concern and importance. The professional staff continuously and carefully tried to engage students by analyzing how student strengths and abilities can inform learning, self-understanding, and possible pathways to success. For example, Beth's passion for art was viewed as a way to channel her learning in productive ways. Her English teacher observed that it allowed her to grapple visually with big ideas and to organize her thinking prior to expressing her ideas verbally. He explained,

A pen and sketchbook were her ubiquitous appendages and initially I had some concern that Beth was paying more attention to her drawings than classroom activities. She demonstrated time and time again that this was not the case, and I became quite comfortable with her visual laboring over her latest project in the midst of class discussions. (Individual interview, December 12, 2011)

Students also commented on the strengths-based philosophy. Andrew explained,

The school tailors curriculum around your strengths. It helps you grow your mind in every way. You may not do well in one area but then there will be a class in an area of strength like programming, art, or music. (Individual interview, February 23, 2011)

Data also pointed to the importance of providing multiple ways to create interest and engagement in a field.

Talent Development

As previously noted in the study's operational definitions, talent development in this school referred to the encouragement and support of identified gifts and abilities that are nurtured in their own right. Findings about the role of talent development indicated that it addressed four main needs: the need to be part of a social group with a positive identity; a way to overcome some social, emotional, and cognitive challenges contextually; an opportunity to develop ongoing mentor and professional relationships with people in talent areas; and the opportunity to become expert in an area of talent.

Talent development opportunities provided an environment in which students could be a valued part of a social group. For example, during middle school Jacob had alienated most of his peer group by his oppositional defiant behaviors. Although talented in music, he was never willing to stay in the struggle when lessons required practice and perseverance. Instead, he would just quit. In the ninth grade, however, an opportunity to participate in the popular jazz band gave him a way to be with peers whom he admired. To assure getting into the group and holding up his musical responsibility, Jacob practiced hard and began to be appreciated. Soon he and his classmates were jamming together, which eventually extended to other social invitations. Jacob's parents remarked that this was the "first time he ever stuck with something" (focus group interview, March 1, 2011).

This same music experience not only provided a social group for Jacob but also encouraged authentic collaboration among members of the group. As Jacob's father explained,

So now suddenly here are all these kids who can't seem to get along, who are not only having to cooperate as part of a band together, but they are writing together. They are coming up with collaborative pieces. They're having to appreciate what each person brings to the group. None of these kids have done this before. (Focus group interview, March 1, 2011)

For some of these youngsters, talent development opportunities appeared to be key in helping them overcome emotional issues blocking their development. In his college essay, Brian described events during his high school years that contributed to overcoming his shyness and anxiety:

Very early in high school, my school offered a 2-week stand-up comedy class during intersession. The final product was to be a comedy routine delivered to the entire school. Throwing all common sense to the wind, I entered that class. One might argue that a kid so shy he was practically mute might not be an ideal

candidate for a class on public performance. I, however, refused to let something as silly as a complete inability to speak stand between me and sweet, sweet comedy. In place of a vocal performance, I programmed my laptop to act as a ventriloquist dummy using text-to-speech software. I wrote a routine for it to perform, in which it told jokes, made horrendous puns, and viciously mocked me and my silence. The audience loved it. I didn't speak a word, but I sure did communicate. (Written correspondence, April 2, 2010)

Another example was how Beth's talent in art provided a way for her to confront social issues that are typical for a person with Asperger's syndrome. As the art teacher commented,

[Beth] told me that because of her Asperger's, she had always had a hard time making eye contact with people. She noticed that progress in her art had reached a plateau as none of her drawings or sketches included people with eyes. She has struggled with it and has tried to force herself, but with difficult results. To improve her art as well as confront a weakness, Beth decided to start drawing eyes realistically, from observation, as a way to learn about eyes, and their importance to expression. (Individual interview, December 12, 2011)

For those students whose abilities and interests took hold prior to graduation, the talent development opportunities opened mentor relationships that facilitated growth along possible career trajectories. For example, the music teacher talked about his relationship with Lucas:

Many of the kids [at this school] can communicate through music, but Lucas rocked. In other classes he struggles. In music the guy is a rock star. I made him my course assistant, my right hand man . . . I know someday I will say, I knew him when. (Individual interview, December 12, 2011)

By the end of the senior year, some students were receiving awards and acknowledgement of their accomplishments. In some cases, however, talent development was stalled due to individual circumstances such as the impact of a specific disability on a talent area. For example, the middle school director explained that two talented actors had such difficulty memorizing lines due to their poor working memory and anxiety that they were unable to hold major roles in public performances. Lack of agreement between parents and teachers about priorities resulted in some students not receiving focused development in their talent areas. For instance, the parents of one student were so concerned about their child's future employability that they wanted time spent on practical skills rather than creative arts.

Discussion

This study sought to understand the experiences of a cohort of students at a school that used a strengths-based, talent-focused paradigm. Everyone in the cohort exhibited growth; however, unlike typical students, these students' growth was

erratic and sporadic, not consistently meeting age-level expectations. One key to dealing with the uneven progress was that when any particular student had difficulties, the faculty and professional staff used the MPPM to identify and target the issues in order to problem-solve possible solutions in cooperation with parents and other experts.

The students who made the most gains were those for whom the components of the model could be put in alignment. When the families were in agreement with the school's philosophy, progress was easier. When a student's talent or interest was not affected directly by his or her disabilities, he or she moved on the trajectory from novice to expert more easily. For those students whose asynchrony was most discrepant, more time was needed for executive functioning and self-regulation to develop. When problems were manifest, it was difficult to keep a focus on strengths, interests, and talents; however, no student was ever withheld from an enrichment or talent development opportunity.

The findings illustrated that students had poor cognitive, emotional, and social regulation when they arrived at the school. Their particular learning issues and challenges had contributed to years of failure, and as a result, they came in emotional turmoil, experiencing high levels of stress. Classrooms were chaotic, work was unfinished, and the students lacked a sense of community. The students fought with each other verbally and physically, passively and aggressively. A growing body of literature from psychology and neuroscience supports the link between stress and poor learning. The negative emotions felt by these youngsters inhibited all aspects of their performance, especially in the areas of working memory and executive functioning (Clinkenbeard, 2012; Hanson et al., 2012; Medina, 2008; Sapolsky, 2004; Siegel, 1999).

Coupled with poor cognitive skills, the students' feelings of being disconnected also compromised their ability to perform. Studies show that the effects of students' perceptions of disconnectedness are more common among students with disabilities (Brown, 1989; Murray, 2002; Seidel & Vaughn, 1991) and negatively influence intrinsic motivation, expectations, and active engagement in learning, especially during adolescence (Dobson, Campbell, & Dobson, 1987; Osterman, 2000). Social rejection and alienation lead to frustration, lower self-concept, and loneliness (Siegel, 1999). The culmination of these experiences often results in high dropout rates and poor performance. (Rubin, Bukowski, & Parker, 2006; Wentzel, Barry, & Caldwell, 2004). Yet the students in this study developed quite differently than these studies would have predicted, and over the course of their school years they became productive, emotionally regulated, and socially connected.

The five factors associated with the growth of the students in this study have been shown in the literature to be important in optimal learning environments. The first factor identified the students' need for a physically and psychologically safe environment (Maslow, 1954; Seligman, 1975). This school provided a haven in which the students could first let down their guard and then begin developing into healthy learners.

The second factor, tolerance for asynchrony, was essential for teachers, students, and parents. Developmental delays in some areas punctuate the growth patterns of the 2e population (Baum et al., 2009; Baum & Owen, 2004; Eide & Eide, 2006; Singer, 2000; Webb et al., 2005). This unevenness frequently causes anxiety and unpredictable behaviors on the part of the students (Baum et al., 2009). Asynchronous development requires adults to alter expectations and to support the students in developmentally appropriate ways (Vygotsky, 1978).

Time, the third factor, thus was critical to these students' growth, especially considering their asynchronous development. Gifted students with ADHD or those who are on the autism spectrum are at least 3 to 5 years behind in executive functioning maturity (Barkley, 2012; Eide & Eide, 2006; McCloskey, Perkins, & Van Divner, 2009). Expecting or demanding that 2e students "act" their chronological age is both unreasonable and ill conceived.

Much research supports the benefits of positive relationships, the fourth factor, in school settings (Marzano, 2003; Rubin et al. 2006; Wentzel et al., 2004; Zehm & Kottler, 1993). Without trusted friends and adults, the students' development could have been stifled. These students, however, were able to build a supportive social network among classmates, faculty, mentors, and staff, all of whom created a learning community.

The fifth factor was the consistent use of a strengths-based, talent-focused approach. From the perspective of the faculty, the students were gifted first and challenged second, with neither feature ignored at the expense of the other. The emergence of this factor adds evidence to support the positive psychology paradigm as a means to nurture academic and social development (Grandin & Panek, 2013; Immordino-Yang & Damasio, 2007; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009; Siegel, 1999).

Results from this study show that talent development can be a worthwhile intervention. Recent studies confirm the importance of addressing strengths and gifts (Assouline et al., 2010; Nicpon et al., 2011; Olenchak, 2009; Schultz, 2012). As Nicpon et al. (2011) state, "It is important to provide the student with opportunities to use her or his high abilities" (p. 14). Therefore, it is surprising that in the past decade there has been no new work added to the literature focusing on talent development as an intervention for 2e students. In fact, Willard-Holt, Weber, Morrison, and Horgan (2013) note that although researchers in the field acknowledge the benefits of learning from experts in an area of interest and talent (the Renzulli triad model), schools do not typically put this approach into practice.

Limitations and Further Research

Although the findings of this study provide evidence of interrelated factors that created a successful educational experience for this cohort of 2e learners, the results need to be interpreted at least partially as a function of the environment in which the students learned: a specialized school with small

class sizes and more flexibility in programming than typically allowed in most public schools. In spite of this school's advantages, however, educators might employ and adapt the themes within this study for the benefit of 2e students in other settings. Replication studies in other school settings, both public and private and across social and economic levels, would advance our understanding of how educators can better meet the needs of 2e learners. Empirical studies are also needed to look specifically at the effects of talent development over time.

Conclusions

Although most learning disabilities are lifelong conditions (individuals do not outgrow them, nor do they disappear), many individuals not only gain coping skills but, as many adults have demonstrated, also can learn to thrive in spite of the difficulties. Results from this research suggest three overarching guidelines for creating programs where 2e students feel safe, valued, and accepted. The first is the purposeful collection of data to gain knowledge of students' strengths, interests, and talents—information not typically collected when using a deficit model. Such knowledge enables professionals to plan appropriate talent development opportunities and to develop dually differentiated strategies for use within the classroom. Second is to address student deficits (as many as possible) contextually within an enriched curriculum so students can apply and transfer skills in authentic ways.

Finally, because the asynchronous development of these students can result in growth spurts rather than predictable linear patterns of readiness, assessing progress by evaluating specific growth over time may serve these students better than insistence on measuring them by grade-level expectations.

Today, through the Response to Intervention movement, teams of professionals and parents are well positioned to use strategies for problem solving similar to those suggested by the MPPM. These strategies encourage teams to consider the whole child using a positive approach, and direct attention to students' interests, strengths, and talents with the understanding that "a person builds a happy and successful life not on remediated weaknesses but on developed strengths" (Hallowell, 2005, p. 34).

Appendix A

Interview Guide: Students

1. Describe yourself as a child.
2. Describe your elementary school experience.
3. What were you like as a student in elementary school?
4. Why did your parents decide to enroll you in this school?
5. Describe your initial visit to this school. What were your impressions?
6. Describe your first week at this school.
7. What were your impressions of your classmates?

8. What were your impressions of your teachers?
9. Describe any changes in your impressions of the school.
10. Describe any changes in your impressions of the teachers.
11. Describe any changes in your impressions of your classmates.
12. Describe any interests that you pursue with passion.
13. Describe your favorite subject/teacher.
14. Take me back to your middle school years at this school. Describe your fondest memory. Describe any challenges you faced.
15. Reflect on your high school years at this school. Describe your fondest memory. Describe any challenges you faced.
16. Describe your feelings about leaving high school and going out into the world.
17. How do you think this school has prepared you for life after graduation?
18. What does the term “twice-exceptional” or “2e” mean to you?
19. Describe yourself 10 years from now.

Appendix B

Interview Guide: Parent Focus Groups

- Explain what led you to consider enrolling your child in this school.
- Describe changes you have seen in your son/daughter since the first day of school in this setting.
- As your son/daughter graduates from this school, describe your feelings regarding plans for his/her future?
- What advice would you provide other parents of twice-exceptional students?

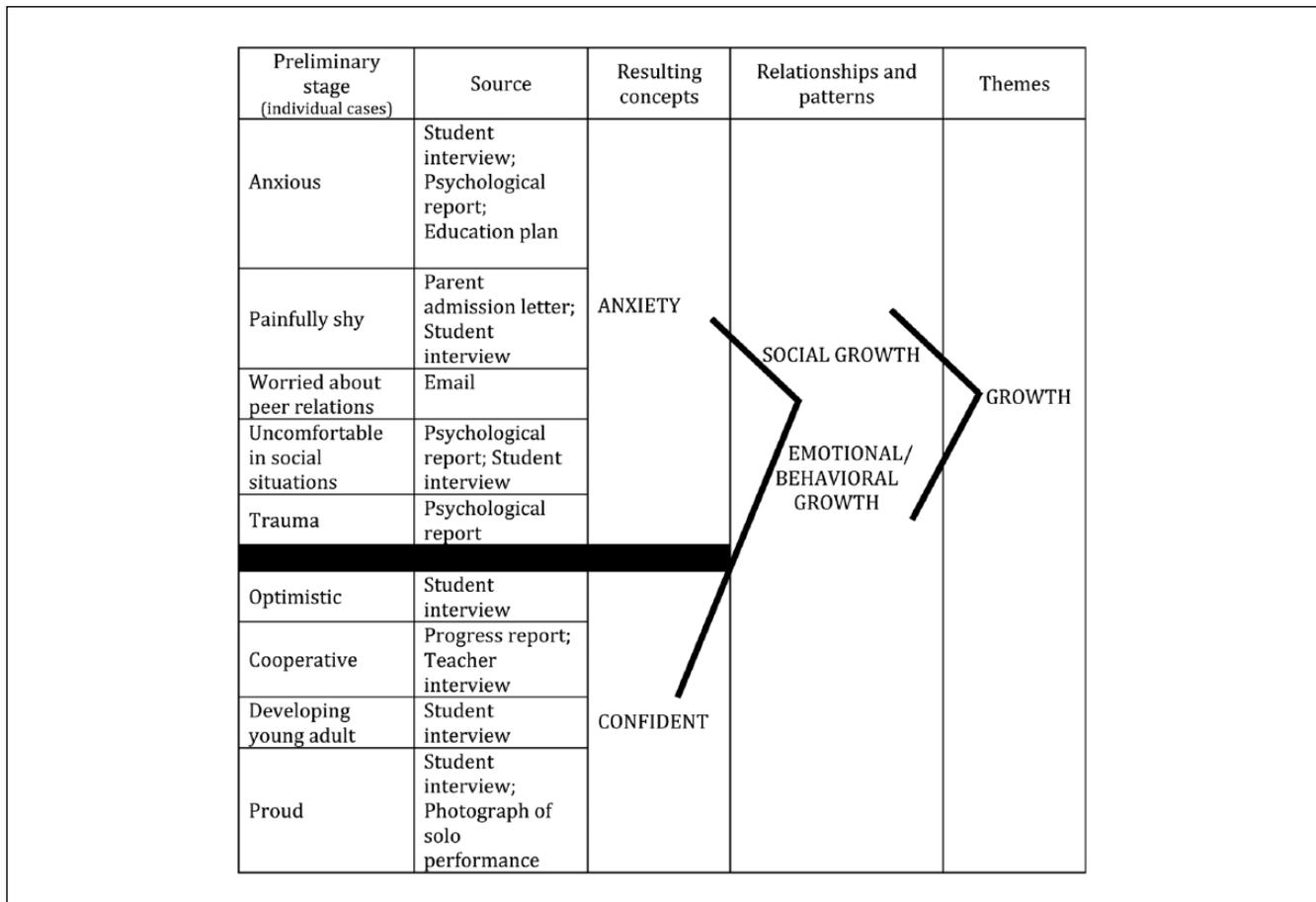
Appendix C

Interview Guide: Teachers

- Describe changes you have seen in the students who are about to graduate from this school.
- As a result of your experiences working with these students, what advice would you provide other teachers of twice-exceptional students?

Appendix D

Visual representation of data analysis process.



Authors' Note

All documents and interviews are available at the research site in archival files.

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Notes

- a. Twice-exceptionality refers to students who are identified as gifted and talented and who also exhibit either one or more of the special education categories (excluding cognitive disabilities) defined by the Individuals with Disabilities Education Act or receive a diagnosis of special needs based on the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychological Association, 2013).
- b. Diagnostic terminology and criteria used in this study were based on the *DSM* (4th ed., text rev.; American Psychological Association, 2000), which was in use during the years the students were identified.
- c. In the *DSM-5*, Asperger's syndrome was incorporated into Autism Spectrum Disorders and is no longer listed independently.
- d. Because of the sensitivity of the student information described in this section, the researchers chose not to reveal subject pseudonyms in these examples.

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