

Finding the Right Fit for Twice-Exceptional Students in Our Schools by Nina Yssel, Mike Prater, and Deb Smith

In the past two decades, the educational and social-emotional needs of twiceexceptional children have been addressed in gifted and special education literature. An awareness of the challenges many of these students experience in the classroom resulted in some outstanding programs created exclusively for this population; but in schools generally, the unique needs of these students are for the most part not met (Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002). The situation of twiceexceptional students who receive only remediation with no enrichment is unfortunately not limited to isolated cases.

During the past 6 years, we have worked and interacted with twice-exceptional middle school students as well as with their parents at an annual residential summer camp. Through surveys and interviews with the parents and their children, the difficulties that twice-exceptional students encounter at school emerged. Furthermore, parents' perceptions of the impact of a successful learning experience during one week of camp have been noteworthy. When teachers focus on strengths rather than weaknesses, and when twice-exceptional students are provided with appropriate coping strategies and accommodations, social and academic success is indeed possible.

The purpose of this article is to present parents' perceptions of educational and social-emotional difficulties their twiceexceptional children experience. The snapshots of twice-exceptional middle school students are interspersed with views and research findings from existing literature. Finally, a few successful strategies are described, and recommendations for the classroom are included.

In this article we use both terms, "twiceexceptional" and "gifted with learning disabilities (G/LD)," to describe this population. The former includes all students with disabilities who are gifted (e.g., those with Asperger's syndrome, Attention Deficit Hyperactivity Disorder [ADHD], emotional disabilities); the latter refers only to gifted students with learning disabilities. At times it is necessary to use this narrower term to describe a student's specific exceptionalities.

Programming Issues Identified in Literature

When discussing appropriate and effective programming, typical characteristics of twice-exceptional students must be examined. Students who are identified as G/LD have characteristics of both exceptionalities. Some of the characteristics they share with their gifted peers include strength in problem solving (Silverman, 1989), a strong verbal vocabulary, creativity, a sophisticated sense of humor, and intense interests in specific areas (Nielsen & Higgins, 2005; Silverman, 1989). G/LD students also demonstrate characteristics typically associated with students with learning disabilities, including impulsive behaviors, distractibility, lack of organizational skills (Baum, Cooper, & Neu, 2001), processing difficulties, and low academic self-esteem (Nielsen, 2002).

In the case of the twice-exceptional student whose specific learning disability is not the primary exceptionality, the so-called "gifted characteristics" described above would still be present, but those associated with the other exceptionality (e.g., ADHD, Asperger's syndrome) might vary. We have found that regardless of the disability, problems with organizational skills, attention, and low academic self-esteem are very common, and most twice-exceptional students with whom we have interacted at camp need intervention in these areas.

This dichotomy, a pattern of strengths and weaknesses demonstrated by twice- exceptional children, is the issue that must be addressed to enable social and academic success (Weinfeld et al., 2002). Reis and Ruban (2005) referred to several studies that underscore the importance of concentrating on the gifts rather than the disability in order to foster creative and productive G/LD students. Nielsen (2002) and Weinfeld et al. (2002) concurred, arguing that these students should first and foremost be seen as gifted learners. However, the view that deficits should be remediated before enrichment can occur is fairly common in schools (Baum et al., 2001).

Through the years, different programming models and options for twice-exceptional students have been identified. Fox, Brody, and Tobin (1983) considered four aspects to be included when programming for G/LD students: (a) gifted programming in the areas of strength, (b) developmental instruction in subjects of average growth, (c) remedial teaching in areas of disability, and (d) adaptive instruction in areas of disability. More recently, Nielsen (2002) envisioned a continuum of service options, for example, a more intensive level of service for twiceexceptional students whose disability is more severe. On the other hand, those with mild learning disabilities could receive all of their services within the general education classroom with support from gifted and special educators. Newman (as cited in Reis & Ruban, 2005) suggested three service delivery systems for G/LD students: intervention in the general education classroom, partial pull-out programs, and selfcontained programs. Reis and Ruban (2005) advocated the success of alternative strategies for this population, including access to advanced technology in all classes, extracurricular opportunities (summer or afterschool programs) to pursue interests, and counseling support and positive peer support programs. Researchers are, therefore, in agreement that twice-exceptional students' unique educational and emotional needs require an individualized approach.

The question is, do schools offer any of these options based on individual needs or do they follow a one-sizefits-all approach?

Summer Camp

Six years ago, our first one-week, residential summer camp for twiceexceptional middle school students was held on the campus of a Midwestern university. This camp has become an annual event, with many campers returning year after year. The purpose of the camp is to provide enrichment in a supportive environment, thereby addressing two of the programming needs suggested by Fox et al. (1983): gifted programming and adaptive instruction. Enrichment is theme-based, focusing on art and science; our campers are engaged in critical thinking, creative problem solving, and reflection. A strong emphasis on the social and emotional well-being of the campers is another component that guides our approach and implementation. This is an opportunity for developing important social relationships among the campers and an enduring social support network.

In order to provide a supportive environment where these goals can be met, we admit a maximum of 20 campers. Attendance has varied between 15 to 20 campers per summer. Two instructors (art and science) coteach classes and are assisted by three teaching assistants and the director of the camp. Teaching assistants typically include special education majors in their senior year, graduate students, and teachers. Campers stay in a dormitory on campus during the week of camp, with three additional adults serving as camp counselors.

Participants

Although we have returning campers every year, recruitment is important. In early spring, campers are recruited through e-mails to special education directors and gifted and talented coordi-

nators in the state. A description of our camp is also included in a list of summer camps on the state department of education website, and presentations at conferences and parent organizations as well as the news media have been effective forums for recruitment.

Our target group includes middle school students (grades 6–8) who are twiceexceptional. Documentation of both exceptionalities must be provided (e.g., an IEP and documentation of participation in gifted programming). On average, 90% of the campers are G/LD; exceptionalities of the remaining 10% have included Asperger's syndrome and emotional disabilities. The majority of campers are male, with the percentage of female campers varying between 10–25%.

Parent Questionnaires

During July 2007, parents of campers were asked to complete a questionnaire (see Appendix) about their children's educational experiences. Eighteen parents (mothers or fathers) completed the questionnaires during the last 30 minutes of an informational meeting on the first day of camp. The questionnaire consisted of 13 openended questions focusing on the child's identification, programming, interests, participation in extracurricular activities, study and organizational skills, social-emotional well-being, and the parents' perceptions of their child's educational experiences.

Enrichment vs. Remediation

Results of the parents' responses to the questionnaire indicated that 10 out of 18 students (56%) were identified/recognized as twice-exceptional at school. Identification or recognition of

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> both exceptionalities did not necessarily translate into service: Only five of the 18 students (28%) received both enrichment and remediation.

Three parents described their children's experiences with regards to this issue:

For the most part our school has been very cooperative when it comes to working with "A" and his learning difficulties, not so with his giftedness.

["B's"] giftedness is not addressed at all in his programming other than to note how much he is underachieving. It's frustrating for me, it must be utterly maddening for him!

["C"] was recognized as gifted (talking to him is like talking to a high school kid, according to his second-grade teacher) but not acknowledged as gifted and he received no enrichment whatsoever.

Parent responses reflected what has been reported in the literature on this issue: Twice-exceptional students usu-

> ally receive services for one exceptionality, seldom for both, and, unfortunately, it is the strengths that are most often ignored (Baum et al., 2001).

Remediation, Compensatory Strategies and Accommodations

Thirteen of the 18 campers (72%) reportedly had difficulties with language arts. These difficulties were mostly problems with handwriting, and especially written expression. In most cases, the reading problems

that resulted in original diagnoses/eligibility for special education services were less of an issue in middle school; problems with written expression, however, continued to present much frustration.

Whereas the emphasis should be on these students' giftedness (Nielsen, 2002) rather than on remediation, remediation of their weaknesses cannot be ignored (Nielsen & Higgins, 2005). Teachers must consider the problems many twice-exceptional students have with basic skills, organizational skills, distractibility, and social-emotional issues when planning interventions. Weinfeld, Barnes-Robinson, Jeweler, and Shevitz (2006) underscored the need for instruction in writing, reading, math calculations, study skills, and learning strategies, as well as social skills.

Baum et al. (2001) provided the following excellent explanation of the struggle of students who have learning disabilities in reading and writing but are gifted in nonverbal areas: With the

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emphasis traditional elementary school settings place on basic skills in reading, writing, and math "much of the curriculum is a secret language arts lesson" (p. 480). These students have ideas and knowledge to share but have intense difficulties expressing what they know and can do through the traditional ways required in classrooms—poor spelling, handwriting, and difficulties with written expression lead to frustration and often, behavior problems. Teachers must also find alternate ways in which these students can access information and demonstrate their knowledge. By allowing them to express abstract ideas in a concrete way through visual and kinesthetic experiences, the barrier of verbal (and written) communication can be removed (Baum et al., 2001).

A parent described her son's difficulties in the classroom as follows: "He ["C"] loves learning but hates, hates writing." His mother also mentioned a successful learning experience; rather than writing a conventional paper, the assignment was "If you were a reporter and had to describe the bones in the human body, what would you say?" This illustrates the statement of Weinfeld et al. (2006) that bright students should be able to demonstrate their knowledge without being hindered by their areas of weakness. Baum et al. (2001) pointed out that G/LD students, specifically those experiencing difficulties with basic skills, should have options of gathering information that "do not insult their intelligence" (p. 482). Therefore, because "C's" problems with written expression could be bypassed, he was not only successful but still refers to the alternate assignment as one of his favorite learning experiences that year.

Organizational Skills

Sixteen out of 18 (89%) campers reportedly had problems with organi-

zational skills and study skills/learning strategies. In two cases, the problems seemed less serious (e.g., "he needs to be reminded"), but in most cases the difficulties were significant:

"B" loses materials accidentally and on purpose. He cannot find notes to study (the few he takes), doesn't fill out his agenda, has no clue how to study for a test or figure out salient facts to study, and has tremendous difficulty figuring out what the teacher wants as an answer.

Another camper's parent described the difficulties as follows:

"E" loses things all the time and constantly needs redirection and reminders on where to put his stuff to stay organized. He always thinks he's studied enough but he hasn't. I have to tell him to do more. [He] doesn't seem to have strategies for remembering what he's studied.

For another camper, issues with organizational skills resulted in a change of placement:

... ["D] was expected to get himself and the necessary belongings from place to place quickly with an extreme amount of stimulation to his senses. I felt his teachers would have liked to help but they repeatedly stated that they did not have the time. He needed to be taught the organizational and coping skills necessary for success in this new environment.

Appeals from the mother for support did not have the desired effect; suggestions from her might be implemented for a short period, but the teachers did not follow through. After "D" started developing anxiety attacks, his parents removed him from public school. He is now homeschooled.

Social-Emotional Needs

Social-emotional issues presented problems for 11 of the 18 campers (61%).

["B"] attempts to fit into larger groups but doesn't know how to do it. He'll be impulsive, loud, brash, and very active on the one hand. At other times, he chooses not to participate and will withdraw and not make the attempt.

Another parent described her son's problems as not serious, yet "C" "sometimes makes odd jokes that kids don't really get. . . . It still takes him a long time to call someone 'friend.'"

Social-emotional issues can be devastating for all children. In the case of twice-exceptional students, a poor academic self-concept and difficulties in the social realm present a particular problem. Baum et al. (2001) described the risk of these students becoming loners or demonstrating problem behaviors, a pattern of continuous failure that results in a loss of confidence in their own ability. In order to boost academic self-efficacy, twiceexceptional students must be empowered by opportunities to be successful; traditional self-esteem programs alone cannot accomplish this. A nurturing climate and emotional support are, therefore, crucial elements in effective learning experiences for this population (Coleman, 2005).

Twice-exceptional children often feel isolated, "as if they are one of a kind" (Nielsen & Higgins, 2005, p. 11) and simply not fitting in with their peers (King, 2005). They also might be rejected because they are interested in topics not shared by peers (Baum

et al., 2001). This has become evident to us at every camp. The conversations are usually not your typical adolescent conversation; our campers enjoy talking to their peers about topics that interest them, ranging from physical science and astronomy, to animals and technology. It is imperative, therefore, that twice-exceptional students have the opportunity to spend time with peers who also are twice-exceptional; they do not always fit into the general or gifted population, nor with those students who have only learning disabilities (Nielsen, 2002). A parent's comment that his son loves coming to camp because "E" "thoroughly enjoys interacting with others who think like him," illustrates the enjoyment of social connections with like-minded peers. Weinfeld et al. (2006) pointed out that social and emotional issues are linked to a student's lack of achievement; a program that attends to all of the needs and strengths of the twiceexceptional student will have a positive effect on behaviors and attitudes. A comment from one of the parents explained this well:

This has been his only positive academic experience since kindergarten. Knowing that ["B"] is not the only one in the world who is smart, but also academically/socially limited has helped his overall self-esteem. He was very fired up at the beginning of his school year last year because his self-efficacy for academics improved.

A parent described the positive impact of the camp experience:

His self-esteem was raised incredibly by the independence he had and by participating in truly challenging and stimulating activities. In addition to his discovery, "S" is now embracing his differences and accepting them. He is better able to appreciate his uniqueness and not be ashamed of it.

Social networking within a supportive atmosphere is important and certainly one of our goals. It is, however, encouraging to hear from parents that positive experiences during one week could have a long-lasting effect, spilling over into improved learning: "A' was very excited last year when his math teacher started to talk about the math pattern that was taught last year in camp. 'A' was the only one in the class who knew anything about the concept."

Observations and Recommendations for the Classroom

Throughout the past 6 years, we have been astounded at the powerful imaginative abilities of most of our campers, abilities that are not always recognized in the classroom, specifically because of the emphasis on traditional means of expression. Many times, we have observed students completely withdrawn and cautious on the first day. Then, once they begin producing art and taking pride in it, they stand up and begin explaining their work to anyone who will listen. It is important not to eliminate the written portion when documenting their work; however, it does not always have to be the only standard used to evaluate success or failure. By differentiating instruction and offering multiple approaches to content, process, and product (Tomlinson, 2001), twiceexceptional students will be able to demonstrate what they have learned through alternate projects.

At camp we allow short periods of time, creative moments, to allow ideas to flow. Twice-exceptional students are able to envision abstract forms and combinations of experienced phenomena but are often accused of daydreaming or being off task when they need time to focus on their thoughts and mental images. Projects are structured to allow students a chance to think, first on their own, next on paper, and then as part of a conversation with the teacher or their peers. When they begin acting on their ideas in learning tasks, they must be able to modify what they are doing based on new ideas that come to them.

Twice-exceptional students are often distractible and have difficulty paying attention in class. According to Baum et al. (2001), sustained attention is possible if they are engaged in areas of strength and interest. The school curriculum should be developed to engage the student; it is possible for these students to be "transformed from passive consumers of extant knowledge to active creators of new knowledge" (Baum et al., 2001, p. 484). Our experiences at camp corroborate this claim. "B," who is constantly in trouble at school due to behavioral problems, is extremely successful at camp where he is engaged and can focus on an activity that is geared toward his interest and learning style.

Our campers, especially those with ADHD, often "change the channel" during a long project. This could be an obstacle; however, as long as the student can remain engaged with the core idea that is being learned, shifting rapidly from task to task can actually lend itself to a more holistic learning experience. This shifting requires the teacher to prepare several smaller activities reflecting the multiple facets and points of view that would have been combined into a single, larger project—a strategy we have found to be very effective.

Twice-exceptional children are often frustrated by their own inability to focus on a single task, or because they can complete some tasks more quickly than their peers. With a group of related activities that can be done multiple times, learning becomes cumulative and individualized based on interest and ability, which meets the academic needs of the twiceexceptional child. An example from the camp provides multiple avenues to this end. If the class is learning about the growth of crystals (an actual example from one of our camps), the teacher establishes multiple stations in the room and groups the students with learning partners. Station 1 might require the creation of crystals based on a type of salt and Station 2, the creation of crystals using sugars. Station 3 could involve examining and identifying different types of crystals through a microscope, at Station 4 students might be drawing crystalline forms that correspond to photos of types of crystals, and Station 5 might involve dissolving crystalline structures using various liquids. This requires thorough preparation and should be organized within the instructional plan as a large block of time rather than as a single lesson with time for only one or two tasks in the group. There should be sufficient time for some learners to complete all of the tasks and some learners to focus and produce in-depth results in one or two tasks. The student compiles the results from the completed tasks in a notebook or portfolio that he or she may use in a presentation. The cumulative learning from this event sets the stage for the next lesson or task group.

We have found it essential to include planned secondary and tertiary activities in every lesson. Some students will simply not be able to work on a single task for the entire lesson; therefore, more time is allotted for a lesson in order to include these secondary and tertiary activities. Our campers are not allowed to engage in unrelated activities as a first choice. Secondary activities that relate to the lesson or to the larger unit are prepared and kept at specific stations in the room. If the primary activity is, for example, a project in which students must design and describe a biome, secondary activities may include a teacher-created board game about matching animals to biomes, a video about specific biomes and how they are affected by external influences, books, puzzles, and other games about various biomes and their characteristics.

As a third choice, tertiary activities that use the same learning or thinking skills but address a different topic are kept at a different station. These activities may include puzzles that involve combining elements to create a new form, articles and books about various animals and their species characteristics, and/or art projects about drawing landscapes and designing new animal species. It is important that the student be directed toward secondary activities first, then to tertiary activities. It is also very important that these activities are not seen as a reprieve from having to complete the primary learning activity or learning task group. Students must understand that they will have to return to the primary task and complete it. Finally, teachers should choose secondary and tertiary activities that are not simply "play time" activities; instead, the primary task should be exciting and engaging so that the student takes pride in completing it.

In order to be successful, these students need compensating strategies (Reis & Ruban, 2005), ranging from the use of technology to strategies that can easily be implemented in any classroom. Baum et al. (2001) suggested the use of visual organizers such as graphic organizers and webs to help students with difficulties in sequential organization and linear tasks. We also have found graphic organizers particularly effective in helping our campers stay focused and on task.

Conclusion

It is a challenge, but not impossible to provide appropriate programming/ intervention for twice-exceptional students. Many of the strategies discussed can be provided within the general education classroom; however, effective programming cannot be accomplished without collaboration among teachers (Kennedy, Higgins, & Pierce, 2002; Robinson, 1999). Providing the right fit in terms of programming is not the responsibility of only the special education teacher and teacher of the gifted, but of a team of experts. The teacher of the gifted must certainly provide the expertise in appropriate services to foster the students' strengths. The special educator is an expert in study skills, learning strategies, and compensatory strategies. General education teachers are the content experts, and school counselors must be aware of the concerns of twice-exceptional students who might be misunderstood, unidentified, and underserved (Assouline, Nicpon, & Huber, 2006).

Although the team approach is highly recommended, teacher training programs should nevertheless include in-depth training for both special education and gifted education teachers; they must know how to identify twice-exceptional students and provide programming (Nielsen, 2002). The following example, provided by a parent of one of our campers, underscores the need for training so that educators can understand the strengths and weaknesses of the twice-exceptional child:

On a trip to a museum as a 4-year-old, "B" identified all nine planets. His interests are confined and intense, but I think teachers have trouble understanding how such a smart kid can so not get it. He constantly has to fight the "lazy attitude, not trying" labels. Teachers don't understand that it is all very difficult for him all the time, that it's impossible for him to maintain a consistent effort all day, every day. They see kids with lesser innate ability being more successful because those kids are "trying" in their eyes.

Not only should we understand "how such a smart kid can so not get it," but also be prepared to provide an appropriate education that would enable twice-exceptional students to receive support in areas of need and validation for their strengths. GCT

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Appendix A: Camp Discoveries

Name of Camper _

- 1. Please describe your child's strengths and weaknesses in all areas (academic, social, organization).
- 2. Has your child been identified as twice-exceptional?
- 3. How old was your child when you realized he or she is gifted? What were some of the strengths you noticed?
- 4. How did you learn that he or she has a disability?
- 5. Does your child receive enrichment as well as remediation and support?
- 6. Does your child like school?
- 7. Does your child participate in IEP meetings?
- 8. Can your child identify/discuss his or her strengths and learning problems?
- 7. Tell me about any successful, memorable experience that your child has experienced at school.
- 8. What are some of the difficulties your child is experiencing at school?
- 9. Does he or she participate in extracurricular activities (including sports)?
- 10. Tell me about your child's passions/interests.
- 11. Does your child have social difficulties? Please elaborate.
- 12. Does your child have problems with organizational and study skills? If so, please describe.
- 13. If your child is a returning camper, how has this camp been beneficial?

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