

# Why Is My Gifted Student Struggling?

## Character Traits, Common Misdiagnoses And Teaching Strategies For Gifted And Twice Exceptional Piano Students

In a phone call with the parent of a prospective student, his mother mentions that her child is in the gifted program at his school. What are the first thoughts that run through your mind? Perhaps you feel a surge of delight as you picture a child who will be able to move at a brisk pace into the intermediate level. Or you may roll your eyes that the parent is already bragging about her child's intellect. Yet, because the truly gifted child is so rare, we may not consider how giftedness often presents its own set of challenges along with teaching opportunities. In fact, if this prospective student initially comes across as overly talkative, unable to stop fidgeting or argumentative, we may question if the parent is wrong about his being gifted and may even begin to wonder if he actually has Attention-Deficit Hyperactivity Disorder (ADHD) instead.

There remains some confusion surrounding the characteristics of gifted students—a label that is often misunderstood to mean that an individual is “really smart.” In fact, giftedness is a brain-based learning difference (Mrazik and Dombrowski 2010, 226). It is important, then, for music teachers to understand the

unique characteristics and needs of the academically gifted student because they might not recognize them in a student for whom musical talent is not one of their strengths. As an example, an intellectually gifted student might not catch on during music lessons as quickly as she seems to grasp other academic subjects. In fact, most gifted children are not equally gifted in every academic area; they are likely to be highly capable in one or two subject areas but less capable in others (Strip and Hirsch 2000, 8). Along with many gradations and aspects of giftedness, there are even substantial differences between highly gifted and moderately gifted students.

A teacher who understands the typical traits of gifted students may be more understanding and accepting of their unique challenges. Unfortunately, gifted education has sometimes been criticized as “elitist” and parents who are afraid of sounding boastful may even avoid telling a teacher if their child has been identified as such. Yet, rather than being a label limited to the privileged few, gifted children are found in every ethnic and socio-economic group. Because some of their cognitive skills may be more advanced than

those of their peers, these students require a flexible approach to sequencing and an accelerated approach in certain areas.

While this particular article will focus on academic rather than musical giftedness, as the former is sometimes less easily recognizable by music teachers, it may be helpful to take a brief glance at the existing research on the latter. As Joanne Haroutounian describes in *Kindling the Spark: Recognizing and Developing Musical Talent*, musical giftedness is just one of several perspectives on how to identify and measure musical talent. Others include “musical intelligence”—one of the types of intelligences described by Howard Gardner (2011) in his theory of multiple intelligences—along with music aptitude, performance and creativity (Haroutounian 2002). While most music teachers would consider themselves to have “hit the jackpot” if they are fortunate enough to teach a child who learns easily by ear or performs with unusual sensitivity at a young age, potential challenges may exist even in musically gifted students, such as the need for a flexible, individualized approach and the balance of quantity of repertoire along with detailed study.

### Surprising Traits of Gifted Students

We might assume that a gifted child will be one who performs well in school and music lessons, but that is not always the case. In addition to their typically large vocabularies, love of reading and total absorption in learning activities that interest them, there are other perhaps less well-known and potentially more problematic characteristics of the gifted child. Indeed, the characteristics that come with being gifted can offer both blessings and challenges. Because they are often autonomous learners, gifted students might arrive in the classroom ready to argue and question rather than listen and follow, and if they dislike drills and rote learning, they may not follow directions well or even complete all of their assignments (Webb et al. 2016, 21).

Gifted individuals are thought to have atypical brains and atypical brain functioning (Mrazik and Dombrowski 2010), and thus have unique learning needs. If they are expected

to learn at the same speed or in the same sequence as their peers, they may become frustrated at going through a series of steps, such as naming whole and half steps in a scale when they have already figured out the pattern. While bright children learn in a convergent, linear fashion, gifted children think divergently and/or rapidly, sometimes jumping directly from Step 2 to Step 10. They might even use “reverse engineering” to solve problems by intuiting the answer and then working backward to find out how they solved it (Strip and Hirsch 2000, 28–29). An example of this would be a student who is able to determine why the key signature of A major has three sharps before she has memorized her key signatures and then uses that information to determine the pattern of whole and half steps in a major scale.

Another confusing factor for the music teacher might be that these students sometimes act in a way that seems to lack common sense, and they may even seem less mature than their peers—sometimes even coming across as rude or disrespectful of authority. This is partly a result of what is called asynchronous development: gifted children tend not to develop equally across the cognitive, emotional, social and physical domains (Webb et al. 2016, 48). The intellect may be out of sync with abilities that are less developed, so a 7-year-old, for example, might have the intellect of a 10-year-old but the social skills of a 5-year-old. Even intellectual skill levels might vary, so a child with a sophisticated vocabulary who learned to read very early might have difficulty expressing himself through handwriting, for instance.

Furthermore, the judgment of the gifted child often develops more slowly than her intellect. In fact, the frontal lobe maturation in gifted students appears to be delayed even longer than in their peers (Henderson and Ebner 1997), although it does catch up with unusually fast speed (Willis 2009, 48–49). In other words, the brighter the student, the greater the gap might be between their judgment and their intellect when they are young. This asynchronous development can result in feelings of isolation from these children who

do not seem to “fit in” with other students their age. To compound the problem, gifted children often have a hard time relating to their peers; they may try to boss them around, have quirky behaviors or talk nonstop about a video game or book that they find fascinating.

### **Overexcitabilities (OEs) and the Potential for Misdiagnosis of Attention-Deficit Hyperactivity Disorder (ADHD)**

In addition, gifted children tend, in general, to be more intense than their peers; along with exceptional energy and high levels of creativity, humor and curiosity, they are often more emotionally and physiologically sensitive—a tendency which has been documented in research (Gere et al. 2009). Researchers propose that gifted children are likely to possess “overexcitabilities,” or OEs, which indicate a heightened ability to respond to stimuli. These OEs are thought to occur in five areas (Piechowski and Colangelo 1984):

1. Psychomotor, which is characterized by impulsive actions and increased bodily movement. “It may manifest itself as a love of movement for its own sake, rapid speech, pursuit of intense physical activities, impulsiveness, restlessness, pressure for action, drivenness, the capacity for being active and energetic” (Piechowski and Colangelo 1984, 81).
2. Sensual or sensory, or a heightened sense of pleasure or displeasure relating to sight, smell, taste and hearing. Smells, sights and sounds might become overstimulating and distracting (Webb et al. 2016).
3. Intellectual, or a marked need to seek understanding and truth or gain knowledge.
4. Imaginational, or prone to intense visualization and daydreaming along with frequent use of imagery and metaphor.
5. Emotional, with heightened, intense feelings and strong reactions. This feature is often the first to be noticed by parents and teachers (Piechowski 1986).

Because of this excitement and their tendency to be “in their own world,” gifted students may find it hard to complete tasks or stay on track, especially with easy, repetitive tasks. Since they sometimes do not “fit the norm,” gifted children are often referred to counselors because of their high activity level and low impulse control. Therefore, it is very common for them to be misdiagnosed with a learning disorder, and many researchers theorize that ADHD represents the most common misdiagnosis.

Researchers have argued that far too many gifted students are referred for problems with hyperactivity and attention (Gordon 1990). Both groups often experience social difficulties and academic underachievement (Guenther 1995) as well as high activity levels, difficulty paying attention, acting without forethought and difficulty following rules (Webb and Latimer 1993). Because of their strong interests and curiosity, they may constantly ask questions and even interrupt others to share their new ideas or something they just learned.

In fact, significant correlations have been found between the psychomotor, sensual and imaginational overexcitability scores of gifted children and the subscales of the Conners ADHD/DSM IV Scales-Adolescent, the diagnostic test used for evaluating students who might have ADHD (Rinn and Reynolds 2012). In particular, “psychomotor overexcitability” is one of the traits that often leads to a misdiagnosis of ADHD (Hartnett, Nelson, and Rinn 2004, 73). Children who are highly gifted are even more likely to be misdiagnosed than those who are moderately gifted as a result of their higher capacity for hyperfocus, greater susceptibility to boredom and elevated intellectual drive (Antshel 2008).

Even health care providers sometimes misdiagnose gifted children with ADHD, partly because of a lack of knowledge about giftedness—even among professional counselors. Researchers have found that counselor training programs, particularly in the first year, may not adequately clarify the differences between ADHD and giftedness (Hartnett, Nelson, and Rinn 2004, 76). This study was one of

the first to illustrate the potential misdiagnosis of giftedness as ADHD in 2004. Another study investigating teacher training found that preservice teachers are more likely to provide a diagnosis of ADHD even when the suggestion of giftedness as an alternative diagnosis is present (Rinn and Nelson 2008, 26).

As awareness of these similarities has grown among researchers in gifted education, an international nonprofit organization, Social Emotional Needs of the Gifted (SENG), launched an international campaign in 2012 to alert pediatricians about the potential for this misdiagnosis (Mullet and Rinn 2015, 195).

While the behaviors of gifted children and those with ADHD may appear similar, they stem from different root causes. It is widely believed that the behaviors exhibited by children with ADHD are caused by a neurological abnormality in the prefrontal cortex of the brain and/or neurotransmitter dysfunction (Webb et al. 2005), but the same behaviors in gifted children may be explained by asynchronous development, boredom in the classroom or overexcitabilities. Attention difficulties, heightened activity and impulse control issues are common in both populations, but gifted students' inattention is usually situation-specific; in other words, when they are appropriately challenged and interested in a task, they are able to stay focused (Webb and Latimer 1993). Students with ADHD, however, often experience problems with inattention both at school and at home (Harnett, Nelson, and Rinn 2004, 76). Moreover, the high activity level of the gifted child is typically focused and directed (Harnett, Nelson, and Rinn 2004, 74), and even when they answer a question impulsively, they are more likely than students with ADHD to answer it correctly (Rinn and Reynolds 2012). The tendency to move constantly due to psychomotor OEs might include tapping fingers or bouncing legs. Rather than being driven by a need for stimulus, as is common in children with ADHD, this fidgeting actually accompanies intense thought in gifted students. Likewise, what appears as impulsiveness in gifted children is often a result of their extra urge to explore their world (Piechowski 1991).

In fact, in a nationwide survey of more than 3,000 parents of gifted children conducted by SENEG in 2011, 18.2% of the parents said their gifted child had been considered for an ADHD diagnosis and 12.8% said their child had been treated for it. Therefore, 31% of the gifted population had been considered for ADHD compared to just 11% of the general population (Webb et al. 2016, 60–61). While researchers have validated the dual diagnosis of gifted and ADHD (Cordeiro et al. 2011), the rate of ADHD in the gifted population has been estimated to be somewhere between 3.1% (Jarosewich and Stocking 2002) and 10% (Antschel 2008)—nowhere near the amount that had been considered or treated in the SENEG study. As one expert stated, “If we use conservative estimates for both of these categories [ADHD and gifted], then we are looking at similar incidences: 3–5% of the population” (Mendaglio 2005, 59). Another researcher estimated that around 25–50% of gifted children diagnosed with ADHD fail to meet the criteria to make this diagnosis (Webb et al. 2005).

There is certainly danger in incorrectly diagnosing a child with ADHD, as once a diagnosis is placed on a child, it is difficult for teachers and even parents to perceive their behavior in any way other than in that framework. Moreover, misdiagnosed children might be prescribed stimulant drugs, which are sometimes used as a blanket tool to decrease symptoms of hyperactivity. In the first decade of the 21st century, the number of physician visits leading to an ADHD diagnosis increased 66% from 6.2 million to 10.4 million (Garfield et al. 2012). While these medications control behavior to make it more compliant, they are also suspected of inhibiting creativity and intellectual curiosity (Baum, Olenchak, and Owen 2004, 36) while even possibly impairing cognitive performance (Cantwell 1996). Compliant behavior may make students easier to manage in a classroom or music lesson, but the very characteristics that can be problematic in a school setting, such as creativity, risk-taking and high levels of energy are also important skills for adults to be successful in their professional lives.

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In addition to what might appear as low impulse control, gifted students might have a tendency to argue, even with authority figures, and this strong-willed behavior can lead to power struggles between students and their teachers. With all of these traits put together—impulsiveness, distractedness, psychomotor overexcitability and emotional sensitivity—it is easy to see why a music teacher might be tempted to label such a child as hyperactive, difficult, stubborn and argumentative, perhaps even going so far as to assume that the child has ADHD.

Indeed, there are similarities between gifted students and those with ADHD, yet there are also important differences that call for a varied instructional style with each population. Unlike the student with ADHD who responds well to structure and repetition, the gifted student without ADHD is typically very reluctant to engage in “busy work” or repetitive tasks that seem meaningless. For them, a schedule or activity list will not provide motivation as readily as a challenge that holds personal interest. In addition, a student with ADHD may find satisfaction in extrinsic rewards such as stickers, but gifted students may balk at teacher-initiated structure and unrelated rewards are unlikely to hold much influence.

Some teaching strategies are useful for both populations, however, especially in the presence of overexcitability. It may be helpful to use dim lighting and remove extraneous sensory stimuli, which can cause sensory overload, such as candles and diffusers, a ticking clock or a loud fan. Other teaching strategies that work well for both populations include setting boundaries on how much off-task discussion is allowed, giving students opportunities for activities away from the piano, and implementing “brain breaks” to give students a break from the monotony of sitting at the piano.

These “brain breaks” might include deep breathing, mindful movement or cross-lateral poses that cross the midline for brain integration (Hannaford 2005, 92). An example would be placing hands on the shoulders and simply twisting the upper body from side to side in

“sprinkler” pose, or lifting one knee up at a time and touching it with the opposite hand. This midline-crossing type of marching could be done to a steady beat during a teacher’s demonstration or recorded piece of music.

Another strategy for teachers is to utilize a “behavior contract” like the one below. A behavior contract can be a helpful way to set boundaries and negotiate with students to provide incentives not with extrinsic rewards, but with intrinsic motivators that develop pride, discipline and satisfaction in hard work (Strip and Hirsch 2000, 52). All students benefit when they believe their needs and desires have been recognized, but gifted students in particular will be much more motivated if they have a voice in the instructional content. The reward on the last part of the contract may be modified to fit the student’s preferences for what he wants to learn.

### Behavior Contract

I, (Student’s Name), agree to practice for 20 minutes right when I get home from school and practice every piece on the assignment list.

I, (Teacher’s Name), agree to let (Student’s name) choose a “reward piece” after he has polished 3 pieces this semester.

If (Student’s name) practices 5 days a week for 20 minutes and works on every piece assigned, he will be able to spend 5 minutes at the end of the lesson improvising. The teacher will video record his improvisation to share with his parents.

### Twice Exceptional (2E) Students

With all this information about the potential for misdiagnosis and similarities between ADHD and giftedness, one might wonder whether it is possible for students to be diagnosed with both giftedness and ADHD. It is certainly true that some children appropriately receive a dual diagnosis, and there is a term for children who, in addition to being gifted, also have a learning disability such as

ADHD, dyslexia, or autism or a visual, hearing or physical impairment. These students are referred to as being “twice exceptional” (or 2E). In the survey by SENG mentioned earlier, 17% of gifted children were considered or treated for being on the autism spectrum compared with just 2% of the general population. In addition, 18% of gifted children were considered as having a sensory processing disorder (SPD) and 13% as having obsessive-compulsive disorder (OCD) compared to 5% of the general population having an SPD and 2.7% suffering from OCD (Webb et al 2016, 61).

For “2E” students, the learning disability or impairment often overshadows the giftedness, which might prevent them from being appropriately challenged in the areas where they surpass their peers. On the other hand, an individual who is clearly bright might be labeled as lazy or inconsistent if she underperforms in certain subjects. While they may be highly creative, adept at thinking abstractly and intellectually curious, they might also be careless, easily frustrated, have poor handwriting or spelling, or have specific learning problems in language, spatial conception, memory and sequencing abilities (Fetzer 2005, 7).

If there is a wide difference between the child’s performance in different subject areas in school, such as high achievement in math and low achievement in reading, the child may need to be tested for a learning disability. With 2E students, conversations with parents become very important, as they are the experts who can help teachers address the child’s unique strengths and deficits. Following the child’s lead with keen observation and a flexible approach allows teachers to cater the pace, content and sequence to the individual child.

While particular strategies depend on the nature of the child’s specific disability or impairment, generally appropriate teaching strategies for the 2E student include making eye contact before giving instructions, limiting the number of instructions given at one time, allowing children to observe a demonstration before attempting a new task and

providing several different types of learning experiences through many modalities (such as visual, tactile and aural). Furthermore, it is important they are allowed to demonstrate mastery of the material in a manner that matches their strengths, such as learning some pieces by rote if they have a strong ear, even while introducing compensation strategies to address weaknesses (Fetzer 2005, 10–11), such as regularly using a sightreading book if their note reading lags behind their aural skills. Perhaps the sequence of learning might also be approached in a more efficient and less frustrating way; for example, the student could learn a phrase or two by rote, then play it while looking at the score to notice what the patterns look like on the page. After performing longer sections in this manner, they could look through the rest of the piece to find similar patterns and determine the piece’s overall structure.

### **Gifted Students with ADHD**

In gifted students who also have ADHD, these two exceptionalities are not separate, distinct issues, but impact each other (Hua et al. 2014). For some, a masking effect takes place where the disruptive ADHD behavior is more obvious and prevents the identification of giftedness. Since gifted students are known for sustained engagement in tasks that intrigue them, those with ADHD require both stimulation and intellectual challenge to stay engaged and on-task (Baum and Olenchak 2002). Rather than focusing on “fixing” areas of weakness, experts recommend educational strategies that utilize a strength-based perspective for all twice-exceptional students, especially for those who are gifted and have ADHD (Baum and Olenchak 2002).

In addition to some of the well-known “deficits” of students who have ADHD, such as inattention, hyperactivity or impulsivity, some studies have found ADHD to be associated with potentially positive traits such as creativity, hyperfocus, resilience, motivation and drive (Holmes 2006). Hyperfocusing is a tendency to focus intently on items of interest, so that



students might even become oblivious to the outside world. Gifted students often pursue topics with greater breadth and depth than their peers (Lovecky 1994), but with ADHD, this tendency has potentially problematic implications if time is not managed appropriately.

Regarding creativity, students who have ADHD have been reported to have strengths in the fluency, originality and elaboration of their ideas (Gollmar 2001). In a study on creativity and working memory, Fugate et al. (2013) found that gifted students with ADHD characteristics had poorer working memory than ADHD students without those characteristics, but that they also had significantly greater creativity. Two studies on students with and without ADHD showed a preference for the generation of ideas in the ADHD group, while the non-ADHD group preferred solution development (White and Shah 2011; Abraham et al. 2006). As an example of implementation in music lessons, gifted students with ADHD may be motivated by improvisation or composition activities, and they may be particularly inspired when asked to come up with novel approaches to the playing of repertoire.

Hua et al. (2014) argue for both a deficit-based approach that accommodates the student's executive dysfunction as well as a talent development approach, involving inquiry-based instruction that emphasizes strengths and builds confidence. A deficit-based approach is typically used for students with ADHD, where executive-control deficits are managed by establishing routines, keeping tasks small, asking for help, developing positive practice habits, making connections and using appropriate technological support. Inquiry-based learning requires students to formulate meaningful questions that can be systematically investigated and that they find interesting. As it satisfies their need to pursue self-posed questions, it is strongly recommended for gifted students in the literature on best practices (Robinson and Shore 2009) and involves a role shift between student and teacher that is empowering to the learner.

Twice-exceptional students must often ask accommodations of their instructors in school; unfortunately, this necessary step of asking for exceptions may undermine confidence. The gifted student might be able to reconceptualize "accommodations" in a more empowering light of "negotiation" as he works with his teacher to decide on tasks, pacing, goals and assessments (Hua et al. 2014). For example, rather than being asked to perform all movements of a sonata, he might only wish to learn the fast, short third movement. Since unrealistic expectations and perfectionism are common in gifted-ADHD students (Solanto 2011), a final assessment for him might be playing in a recital rather than in a competition where he would be judged. While teachers might need to assist with setting attainable goals, the act of learning to advocate for themselves, manage their tasks and build upon their unique strengths will be an important step for all gifted students with ADHD.

### **Perfectionism and Anxiety**

Other common challenges for the gifted child include perfectionism, anxiety and depression. In fact, 35% of gifted individuals suffer from anxiety compared to 25% of the general population, and 19% of them suffer from depression, compared with just 3–6% of the general population (Gallagher, Harradine, and Coleman 1997).

Perfectionism is strongly correlated with anxiety, and while gifted students tend to have unusual persistence, they can also be hypercritical and set high personal standards for themselves. When these expectations are too high, they may become more easily frustrated, especially with continued repetition that actually halts progress. If students become preoccupied with their inability to make seemingly simple corrections, it may help to lead them through a few deep breaths or advise them to imagine themselves performing the task successfully. You might even assign an affirmation they can say aloud such as "I am capable of doing this even if it is difficult at first." When frustration sets in, it may be ne-

cessary to switch activities for the time being or step away from the piano when possible. Rhythm, ear training or theory activities along with the previously mentioned “brain breaks” can all be conducted away from the piano when anxiety has disrupted the flow of the lesson. When the students return to the challenging problem spot, they may be able to do so with a new frame of mind and a more patient attitude.

When students struggle with anxiety and fear of failure, it is particularly important to nurture a “growth” mindset rather than a “fixed” one. This idea of the two types of mindsets was established in Carol Dweck’s landmark book *Mindset* (Dweck 2007). It is common for individuals who have been told from a young age that they are “smart” to begin to assume that intelligence is inborn and should not require effort. Those with this “fixed mindset” might assume that a task is difficult for them because they are not smart enough to handle it. When that happens, they are inclined to give up to avoid the embarrassment of failure. Students with a “growth mindset,” on the other hand, will see challenges as opportunities to grow. Rather than praising students for their intelligence or talent, comments such as, “You worked so hard this week!” or “I am so proud of your effort at this lesson!” promote a growth mindset.

### **Teaching Strategies for Gifted Students**

Teaching gifted students requires the teacher to act more as a facilitator than an authoritarian, guiding and channeling the child’s creativity and curiosity instead of acting as the sole source of knowledge. Since gifted children sometimes solve problems in unusual ways, it is helpful for teachers to be flexible and allow students to solve problems in their own way rather than following the teacher’s set sequence every time (Strip and Hirsch 2000, 116). For example, a student might want to learn the chord inversions in the left hand and label them with roman numerals before playing them in the correct rhythm. Finally, the teacher of a gifted student must have stamina. Since the child will be curious and

might need to talk out their ideas, constant questions are common. The teacher will need to be able to listen, direct, redirect when necessary and respond in a way that does not squelch enthusiasm but leads students in the right direction.

### **Curriculum Expansion: Pedagogical Ideas for Gifted Piano Students**

Gifted students often benefit from an expanded curriculum, particularly in the subject areas that are their strengths. A major national study found that much of the regular school curriculum was redundant for gifted students. In fact, these students equaled or exceeded their peers when 60% of the curriculum was eliminated (Reis et al. 1993). Since it has been found that many bright students do not require the usual amount of repetition to master skills (Gallagher 1990), an expanded curriculum offers stimulating opportunities for divergent thinking along with meaningful, practical activities. In addition to accelerated content, the curriculum differentiation that takes place in Gifted and Talented (GT) school programs also adds greater depth, breadth and complexity. Approaches that offer a great deal of busy work to reinforce concepts—sometimes referred to as “MOTS,” or “more of the same”—often cause boredom and behavior problems in gifted students. Instead, an expanded curriculum helps students harness their strengths and may prevent them from getting lost in abstract reasoning or jumping from one unfinished project to another.

### **Motivating Repertoire**

Creative approaches to repertoire allow piano teachers to expand the curriculum in ways that will motivate gifted students and support their unique strengths. Gifted children often show atypical interest patterns, and teachers should search for ways to engage these students in their own areas of interest (Strip and Hirsch 2000, 118). Asking students questions about their favorite subject in school as well as their favorite books, movies and television shows can help teachers assess repertoire that will appeal to their



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unique interests. When making repertoire decisions, teachers should ask themselves the following questions:

1. Is my student interested in learning this piece, and why?
2. Does its musical content meet our pedagogical goals?
3. Is it of the highest musical quality?

While appealing to the student's unique interests is important, the teacher also needs to ensure the student is making progress musically and technically with well-written literature. In addition to the suggestions below, the repertoire list at the end of the article describes other selections among the multitude available that cater to a variety of student interests, including dinosaurs, space, animals, the environment, history and geography.

An intermediate student interested in history, for example, might appreciate Tom Gerou's collection, *Lewis and Clark: A Musical Expedition*. Seven pieces with descriptive titles help tell the story of the famous expedition, which is described with maps and journal entries, and "musical maps" describe the structure of each piece (Gerou 2004). Students who like to play video games might enjoy the two *Castle Escape* books in the *Supersonics* collection by Daniel McFarlane, which feature a map with various challenges such as a "Secret Door" and "Hall of Shadows" that they have to conquer in order to "escape the castle" (McFarlane 2019).

Students interested in animals might enjoy Lynn Freeman Olson's *Menagerie*, a delightful

set of six elementary-level pieces that each describe an animal such as a flamingo and "Grumpy Bear" (Bernstein 1963). Margaret Goldston's *Lions and Friends* for the elementary level contains interesting information about the African animals that appear in each piece, and Mary Leaf's *Going Buggy* (2002) similarly contains a sentence or two about each insect that is portrayed by an elementary-level piece.

Students might also be interested in exploring new compositional devices such as 12-tone writing, improvising with aleatoric music or even playing the role of "musical detective" to solve puzzles or problems in the score. Each of the *25 Inventions* by Ross Lee Finney (1971) contain a musical puzzle or game, which usually relates to the use of a particular tone row and whether it is transposed, retrograde or inverted. His *32 Piano Games*, which range from the elementary to late intermediate level, likewise introduce children to the "types of notation that contemporary composers use," aiming to "sustain [their] original excitement for learning to play the piano" (Finney 1969).

A late intermediate-level pedagogical collection called *Outside the Box* (ed. Lehrer 2008) contains 10 contemporary solos that utilize contemporary techniques such as mixed meter and whole tone scales as well as chance procedures in a piece called "Codebreaker" by Kevin Olson. In this piece, students figure out a "mystery message" by using a code with a letter assigned to each musical pitch (Olson 2008, 9–11).

Kevin Olson

**Mysteriously**

The musical score is titled "Mysteriously". It is written for piano on a grand staff. The treble clef contains a whole note chord consisting of G4 and F4. The bass clef contains a whole note chord consisting of G3 and F3. There are several rests in the treble clef and a whole note chord of G3 and F3 in the bass clef.

Figure 1: "Codebreaker" by Kevin Olson from *Outside the Box* (ed. Lehrer 2008, 9–11)

An option to introduce dodecaphonic writing is the intermediate-level book of *Three 12-Tone Waltzes* by Lee Evans (2006) which explains the technique and includes several repertoire pieces with corresponding analyses. It additionally supplies an outline of the tone row, retrograde, inversion and retrograde inversion so students can create their own tone row and composition.

The curriculum may also be expanded by allowing students to explore a topic related to their repertoire by researching stylistic, biographical and cultural information on a musical period or composer. The anthologies below are just some examples of repertoire collections that offer such expanded historical information:

- ▶▶ *Succeeding with the Masters* by Helen Marlais (2004): Volumes 1 and 2 for each of three eras: Baroque, Classical and Romantic
- ▶▶ *Baroque Spirit, Classical Spirit, and Romantic Spirit* by Nancy Bachus (2002): Books 1 and 2 of each
- ▶▶ *Keys to Stylistic Mastery* by Ingrid Jacobson Clarfield and Dennis Alexander (2003): Books 1, 2, and 3

**Learning Contracts**

Before allowing students to participate in expansion activities, they must meet the teacher’s standard learning objectives for their level. Learning contracts may be used as a management tool to state what must be accomplished and assessed before offering expansion options; in this way, they help students feel more involved in the learning process while setting limits (Strip and Hirsch 2000, 116). They work especially well for managing the behavior of gifted students who are bored with busy work or repetition and desire additional challenges. In addition, they help students focus on one area at a time rather than jumping from one project to the next without completing anything. A contract can be a simple two-or three-column document based on a general lesson plan that might be used with your other students. It begins with a set of learning goals along with both required assignments and optional assignments. Once the requirements are completed, students can move on to their choice of an optional assignment. As an example, an elementary student might be required to learn the following concepts by the end of a semester:

Concepts	Requirements	Options
Quarter, half, dotted half, and whole notes, and corresponding rests	Clap rhythmic patterns on p. ____ (end of book)	Compose a pentascale melody using rhythmic patterns Improvise a pentascale melody based on a rhythmic pattern
Major white key pentascales	Play all white key major pentascales in quarter notes at quarter note=100	Play white key pentascales in minor Transpose C, D, F, G, and A pentascales up a half step to a black key pattern Improvise on pentascales over tonic and dominant tones in the left hand

## Summary of Teaching Approaches

Below is a list of 10 specific teaching approaches, based on the research literature and implemented in music lessons by the author, that may be helpful when working with gifted students.

1. Allow students to select their own repertoire based on a set of appropriately labeled selections that will meet your learning objectives.
2. Try to find repertoire pieces with titles or characters that match one of the student's keen interests. Even with non-programmatic music, you and the student can create story lines that illustrate his favorite book or movie.
3. Explain the reason behind each practice strategy and technical exercise, particularly if it uses a great deal of repetition. If a student is resistant to practicing scales repeatedly, for instance, the teacher may need to explain how these technical patterns prepare them to sightread and learn music more quickly. They might even create a goal or competition with another student to see how many scale fingerings they can learn in a given amount of time.
4. Be flexible with your sequencing. You might expect to skip some stages and spend more time on others; for example, students who quickly learn note names on the staff may struggle with scale fingerings.
5. Be prepared for the student to interrupt. Try to give the student some time to share with planned limitations, so that they feel appreciated without reducing too much lesson time.
6. Allow the student to work creatively. You might give her opportunities to compose and improvise in ways that will reinforce learning concepts, such as improvising on a rhythmic pattern or chord progression.
7. For perfectionistic and anxious students, know when to let things go and move on. Encourage a growth mindset, guide them through deep breathing and affirmations to decrease frustration and step away from the piano when necessary. "Brain breaks" and mindful movement help create a "reset" for students who are frustrated as well as those demonstrating overexcitabilities.
8. Use games and apps to keep things fun and fast-moving.
9. When possible, let students determine the order of the lesson.
10. Expand the curriculum by giving students "research" opportunities. They could read an assigned text about a composer or listen to selections in a particular genre or style, for example.

## A Word of Caution

Since teachers have the remarkable privilege of working with students one-on-one, they may notice signs of a learning difference early. But even teachers who have experience teaching students with ADHD, dyslexia, autism or other special needs should be cautious about placing labels on students who have not yet been evaluated by professionals. Unless trained to do so, they must resist the temptation to diagnose the behavior and should instead seek out a conversation with the child's parent. While the music teacher's perspective will give them additional information to consider, parents live with and observe their own children in many different scenarios, so they are truly the experts. These conversations will allow teachers to listen to the parent's opinions and suggestions while neutrally sharing their own observations based on their individual work with the child.

Even when a teacher has been notified of a clinical diagnosis, he should be careful to consider the student as an individual rather than merely within the framework of the assigned label. As music teachers continue to gain

more information about learning differences and embrace neurodiversity, the downside to diagnoses is their potential to be perceived as stereotype. A label never functions as a clear-cut description of everything a teacher needs to know about her student. Instead, it offers a signal or perhaps a warning sign. The signal suggests that the teacher watch, observe, listen and respond in a way that honors the student's unique learning needs. Rather than giving a specific prescription for successful teaching strategies, it gives teachers a clue about possible reasons for a student's behavior. Observed behavior may not always indicate "what it looks like." When teachers seek to modify behavior without considering the feelings or thought processes behind it, they offer only temporary solutions at best. Instead, seeking understanding allows the teacher to accept differences and find ways to connect with the student on the bench so that lessons become more productive and satisfying for both parties. ◀◀

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