Beyond Expertise

Conceptions of Giftedness as Great Performance

Rena F. Subotnik and Linda Jarvin

WHAT IS GIFTEDNESS?

Our conception of giftedness rests on three theoretical premises. The first is that abilities are forms of developing expertise (Sternberg, 1998). Second, beyond the level of expertise exists the realm of elite talent (Subotnik, 2000; 2004a), or what we call scholarly productivity or artistry (SP/A). Finally, in the course of transition from novice to expert and beyond, key personality, ability, and skill factors become increasingly or decreasingly important (Subotnik, Jarvin, Moga, & Sternberg, 2003). In accordance with these premises, we believe that abilities have interactive genetic and environmental components, yet are modifiable and capable of being flexibly deployed. We view abilities as necessary but not sufficient for generating expertise or SP/A. From our perspective, giftedness in its early stages is defined as the efficient yet comprehensive development of ability into competence in a domain. During the middle stage, giftedness becomes associated with precocious achievement of expertise. Finally, we view giftedness in adulthood as SP/A, taking the form of unique contributions to a field or domain. In the course of offering details on the transformation of abilities into competencies, expertise, and, in some cases, SP/A, we focus on examples from the domain of music.

Substantial evidence exists that abilities can be enhanced, at least to some degree (see Feuerstein, 1980; Herrnstein, Nickerson, deSanchez, & Swets, 1986; Nickerson, 1986; Nickerson, Perkins, & Smith, 1985; Perkins, 1995; Perkins & Grotzer, 1997; Ramey, 1994; Sternberg, 1988, 1994, 1997; Sternberg & Spear-Swerling, 1996). The best evidence favors a complex mix of genetic and environmental origins of abilities, interacting in ways that are not as yet fully known (see Sternberg & Grigorenko, 1997). The question we explore here is how abilities are developed to elicit elite performance.

The foundations of elite talent can be found in an individual’s abilities, competencies, and expertise. Extraordinary abilities tend to be manifested...
in one or two domains, and not across the board. Without opportunities to learn from skilled instructors, such abilities may develop too slowly or even counterproductively. Incorrect fingering on an instrument or poor handling of athletic equipment can lead to injury. Insufficiently challenging instruction can also hamper opportunities available to a youngster with high abilities. For example, introducing classic dance instruction to a 16-year-old would most likely preclude career advancement, since by that point, peers would have benefited physically, cognitively, and aesthetically from at least four years of instruction and practice. Notably, the age at which the different stages of the transformation process from ability to SP/A take place will vary, even within a domain. In music, for example, a singer will develop much later than a violinist.

A high-quality teacher channels abilities into competencies by introducing a series of sufficiently challenging experiences that can be practiced and mastered. With each level of mastery, the student becomes increasingly competent. True competency, in contrast with false praise for meeting mediocre standards, cannot be achieved without student motivation. Some levels of drive are derived from temperament, but can also be elicited from challenging peers and engaging curriculum. Great teachers encourage their students to embrace rather than fear adversity, as mastery over such fear allows for persistence through practice, disappointment, and even failure.

Expertise is derived from using one’s abilities to acquire, store, and utilize at least two kinds of knowledge: explicit knowledge of a domain and implicit or tacit knowledge of a field (see Sternberg, Wagner, Williams, & Horvath, 1995). We define domain as a knowledge base, and field as the social organization of that knowledge base (Csikszentmihalyi, 1988, 1996). Explicit knowledge is the kind most frequently studied in the literature on expertise (see Chi, Glaser, & Farr, 1988; Ericsson & Smith, 1991). It is knowledge of the facts, formulas, principles, and major ideas of a domain of inquiry. Implicit or tacit knowledge of a field is the informally taught knowledge one needs to attain success in a field. For example, in music, the composition of a diminished seventh chord would constitute explicit knowledge, whereas how to get a gig would constitute informal or tacit knowledge. Although it represents the pinnacle of acquired wisdom, skill, and knowledge, expertise is a passive enterprise. It does not incorporate the addition of new ideas or levels of performance to a field, discipline, or domain. In order to describe the genesis of groundbreaking performance or transformational ideas, another category is needed. Such a category can be labeled as SP/A (Scholarly Productivity/Artistry).

Through our investigations of giftedness in the domain of music, we have developed a model for the development of abilities into competencies, expertise, and SP/A. The model was developed on the basis of interviews (more than 80 to date) conducted with students at different stages of their musical training at three elite American conservatories; the music faculty at
Beyond Expertise

these institutions, most of whom are working performers themselves; and "gatekeepers," or those who exercise influence over musicians’ opportunities to perform and make a living, for example, music critics for national newspapers, artistic directors for prestigious concert halls, and the agents that act as intermediaries between artists and artistic directors. Although this model was developed to describe the development of elite talent in music, we propose that the model also describes the path to eminence in most domains. Figure 19.1 summarizes this model of giftedness.

Abilities

Initial abilities with interactive genetic and environmental components in our model include intrinsic motivation, charisma, and musicality. Although we have argued for the plasticity of abilities, according to our study outcomes (Subotnik, 2004a, 2000; Subotnik, Jarvin, Moga, & Sternberg, 2003) these three abilities are not teachable.

Intrinsic motivation is associated with the love of communicating through music, in spite of how difficult it is to make a living solely through performance or composition. Charisma, which plays a significant role later in the talent development process, refers to the ability to draw listeners to a performer, either through his or her music or through the force of his personality. Musicality is the capability to communicate effectively through music.

From Abilities to Competencies

With high-quality instruction, a child can develop these abilities into competencies. The instruction should emphasize exposure to and guided practice of the skills and knowledge of the domain. The effectiveness of this instruction is mediated by:

• how fast students can learn,
• technical proficiency the child can attain,
• parental support or pressure,
• the child’s “teachability” (i.e., the willingness and openness to being taught),
• the quality of the student–teacher experience,
• the availability of external rewards such as praise and recognition, and
• persistence through good and bad times.

The more quickly a student can move through the repertoire, the more the student can benefit from exposure to musical ideas, and the more a teacher can provide in terms of guidance. According to our interviewees – students at different stages in their musical training, faculty members, and gatekeepers – speed of learning is helpful but not essential to success in the
<table>
<thead>
<tr>
<th>Ability</th>
<th>Opportunity for instruction with emphasis on exposure, and guided practice</th>
<th>Competence</th>
<th>Opportunity for instruction with emphasis on moving beyond technical proficiency.</th>
<th>Expertise</th>
<th>Opportunity for socialization into the field and networking guided by master teachers, agents, and other gatekeepers.</th>
<th>SP/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mediating variables:</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learn fast, analyze patterns &amp; structures</td>
<td>technical proficiency, and guided practice.</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical proficiency</td>
<td>Technical proficiency, and guided practice.</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental support or pressure</td>
<td>Parental support, and guided practice.</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachability</td>
<td>Teachability (beginning of differentiation)</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of student-teacher experience</td>
<td>Quality of student-teacher experience.</td>
<td></td>
<td>Mediating variables:</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External rewards: recognition</td>
<td>External rewards: recognition, opportunity to perform, and financial independence</td>
<td></td>
<td>External rewards: recognition, opportunity to perform, and financial independence</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistence in good and bad times</td>
<td>Persistence in good times and bad times.</td>
<td></td>
<td>Persistence in good and bad times.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td>Intrinsic motivation.</td>
<td></td>
<td>Intrinsic motivation.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musicality</td>
<td>Musicality.</td>
<td></td>
<td>Musicality.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowing your weaknesses and strengths</td>
<td>Capitalizing on strengths.</td>
<td></td>
<td>Capitalizing on strengths.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-promotion</td>
<td>Promotion of self through an agent</td>
<td></td>
<td>Promotion of self through an agent.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning how to play the game</td>
<td>Mastering the game.</td>
<td></td>
<td>Mastering the game.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social skills: collegiality</td>
<td>Social skills: collegiality and engaging patrons.</td>
<td></td>
<td>Social skills: collegiality and engaging patrons.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restoring self-confidence</td>
<td>Exuding self-confidence.</td>
<td></td>
<td>Exuding self-confidence.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk taking</td>
<td>Risk taking.</td>
<td></td>
<td>Risk taking.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charisma</td>
<td>Charisma.</td>
<td></td>
<td>Charisma.</td>
<td>Mediating variables:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 19.1.** Domain affects the age at which each stage of the process takes place.
Beyond Expertise

early stages of talent development, and does not increase in importance over time. The one clear advantage of learning quickly at the expert level lies in the possibility of standing in for an absent colleague at short notice, which has been known historically to lead to a career-making performance.

The level of technical proficiency a child can attain will depend a great deal on the skill of the teacher and the child’s commitment to practice. A hand injury derived from faulty technique can lead to constant muscle strain and inflammation that will impede development. Parental involvement can be either negative (nagging, restricting freedom of choice, turning an initially pleasurable experience into a constraint) or positive. Positive parental involvement can take the form of initial pressure or of support, and many of the musicians we interviewed who started very young indicated that without their parents’ insistence on a consistent practice schedule, they would not have transformed their abilities into competencies. Negative parental involvement can also take the form of mixed messages: On the one hand, the parent likes the idea that their child is learning music, considering it a form of refinement. On the other hand, the parent may not want the child to invest in music completely and consider a career as a musical artist.

The child’s “teachability,” in other words, his or her willingness and openness to being taught, is considered by most highly expert teachers we interviewed to be a very attractive quality in a new student. If a student seems resistant to instruction in a conservatory audition, he or she will not be viewed as a good investment for the teacher’s studio.

The quality of the student–teacher relationship defines the likelihood that musicality and intrinsic motivation will be directed productively. Talented young musicians and their families choose their teachers carefully based on the teacher’s ability to maintain a rigorous curriculum and high expectations.

Although much of the pleasure a child derives from music making is intrinsic, practice and persistence are buttressed by positive reinforcement from parents and especially teachers. Recognition for one’s exceptional talent is an important external reward for young musicians. Persistence through good and bad times, assisted by positive reinforcement and parental pressure, prepares young musicians for the inevitable rejections or failures that are part of the growth process in talent development.

At this stage and throughout the process of elite talent development, intrinsic motivation and musicality remain important factors.

From Competency to Expertise

Most young musicians enter conservatory highly competent. To move from competence to expertise, they need continued opportunity for instruction with an emphasis on technical proficiency. The ability to learn quickly diminishes in importance.
Mediating variables at this transitional stage remain technical proficiency, parental support, teachability, quality of the student–teacher experience, availability of external rewards, persistence through good and bad times, intrinsic motivation, and musicality. Many of our interviewees pointed out that, past a certain threshold of technical proficiency, a (relative) technical flaw can be interesting. According to one gatekeeper, “somewhat flawed” is better than “push the play button,” especially for vocalists who can make up for less than perfect technique with their stage presence or the loveliness of their sound more so than can instrumentalists. In regard to teachability, over time during the conservatory years, teachers expect their best students to “bite back” and insist on cultivating their own style, voice, or message.

Although recognition remains an important external reward, two others play a growing role in reinforcement: financial independence and opportunities to perform. With advancing age and responsibility, conservatory students know that they will need to support themselves. If they are not successful in acquiring gigs, then they’ll have to drain their time and energy with unrelated employment. Also, opportunities for performance during the conservatory years are constrained by the institutions’ responsibility to provide equitable display of all students’ talent. Competitions, both internal and external, therefore take on more importance. The thrill of performance at such a high level becomes the central expressive outlet for the musician’s life.

On the path to competence, studio teachers analyze students’ strengths and weaknesses and focus mostly on ameliorating weaknesses. During the transition from competence to expertise, however, teachers expect students to analyze and appreciate their own profiles of strengths and weaknesses and approach their practice and choice of repertoire, accordingly.

New mediating variables include:

- Knowing your strengths and weaknesses
- Self-promotion
- Learning how to play the game
- Social skills
- Restoring self-confidence.

The gatekeepers we interviewed recognized that self-promotion is necessary for success as a performer, and that knowing when and how to promote oneself is part of being effective at securing jobs. Concurrently, they disdained efforts at channeling creativity into playing the game instead of one’s music. Teachers provide the tacit knowledge needed to prepare their students to play the game by modeling how to be graceful in success and failure, and engender a reputation as a professional. Most students we interviewed recognized the role played by self-promotion but found the notion repulsive. With reluctance, young musicians learn from...
Beyond Expertise

their peers and teachers that there are “games to be played” beyond the acquisition of exquisite performance skills – for example, a notable resumé, a good headshot, an agent, patrons.

Teachers at this stage also play an important role in promoting social skills such as arriving on time and well prepared, being courteous, and learning to accept success gracefully and failure with resilience. The conservatories with which we worked acknowledged the need for this socialization and have started offering classes addressing the details associated with becoming a professional musician.

Most students enter conservatory confident in their abilities. As in all transitions to more competitive environments, many will temporarily question their abilities as they witness the competence of their new peers. Students need the resources (both internal and external) to work through this challenge and restore their self-confidence.

From Expertise to SP/A

The last transition in our model is from expertise to scholarly productivity or artistry (SP/A), and relies on the opportunity for master teachers, agents, and other gatekeepers to impart their tacit knowledge and networking for their protégées. The transition from expert to SP/A tends to take place for string and piano players during their conservatory years. Those conservatory students who are not identified as stars begin to self-select into other aspects of the music business. Vocalists, whose training begins in early adulthood, experience the transition from expertise to possible SP/A after completing conservatory training.

Mediating variables at this transition include the availability of external rewards, persistence through good and bad times, intrinsic motivation, musicality, capitalizing on strengths, promotion through an agent, mastering the game, social skills, and exuding self-confidence. Technical proficiency, parental support, teachability, and the quality of the student–teacher experience no longer play an influential role in the talent development process.

Even if one is highly successful, persistence through good and bad times and intrinsic motivation remain crucial variables. The bad times may change in nature, but persistence and resiliency remain crucial as outstanding success and recognition may elicit jealousy and ungrounded or excessive criticism.

In the course of achieving competence, young musicians’ teachers identified weaknesses and focused guided practice on ameliorating them. During the transition to expertise, musicians are expected to monitor their technical proficiency, focusing on both strengths and weaknesses. In the final stage, an artist will capitalize on strengths and shy away from performance situations where one would display weaknesses. More productively, an artist would use his or her weaknesses to advantage, such as a singer using a technical flaw to display added charm.
An artist at this stage would be expected to have solicited the support of an agent to perform most of the legwork in acquiring performance opportunities and ensuring financial stability. Many agents also play the important role of financial advisor and life coach. The agent also ensures that the artist masters the game, which at this stage becomes part of the professional career in music.

Social skills remain important to success in musical careers. In addition to exhibiting excellent professionalism, an artist needs to engage and maintain the interest of patrons. Our gatekeeper interviewees stressed the fact that the music world was so competitive that diva behavior was less tolerated and that talent is less likely than ever to neutralize shortcomings in the nonmusical variables we have identified.

Self-confidence, whether it is deeply felt or not, must be displayed for the audience. According to our gatekeepers, the most exciting performers keep their audiences on edge through their control of the instrument and the music.

Additional characteristics at this stage include:

- risk-taking and
- charisma.

The most interesting artists are those who control audiences’ engagement in anticipation of the unexpected based on creative risk taking.

Charisma also emerges as a key to success at the highest levels of artistry. According to our study participants, there are two kinds of charisma: one centered on the artist and one centered on the music. Artists of the first kind draw people to them because their presence is larger than life. Another kind arises from the power of their performance.

How Does This Conception of Giftedness Compare to Other Conceptions of Giftedness?

Let us compare this conception of giftedness with those of three other scholars whose theories or models have influenced our SP/A model most: Bloom, Tannenbaum (who contributed to the 1986 edition of this volume), and Gagné, whose work appears in this volume as well. Bloom provides us with developmental stages of instruction and support on the part of parents and expert teachers. Tannenbaum provides us with the key variables that enhance or impede talent development, and Gagné highlights how key variables transform gifts into talents.

Bloom and his colleagues (1985) conducted a seminal retrospective study of eminence or elite talent in six fields: two in sports, two in the arts, and two in academics. He sought to uncover the unique components of talent development in each field, while concurrently seeking cross-disciplinary generalizations. The generalized model includes three stages
Beyond Expertise

that, according to Bloom, describe the talent development process in each field.

The first stage of the Bloom model is characterized by recreational involvement with a domain. Often the family or community values this domain, even if they are not active participants in that arena. Teachers convey the romance of the domain and view those with ability as fast learners. They offer praise and opportunities for successful competition as incentives. The middle stage of the model is characterized by a special teacher’s focus on technique, skill, and learning the rules and mores of the domain. Concurrently, parents continue to provide support financially and emotionally. As the learner progresses, he or she identifies him or herself as a swimmer, scientist, musician, and so on. The talented individual becomes his or her own critic, which can lead to first-time feelings of self-doubt.

Should a learner overcome self-doubt and become sufficiently expert to pursue the third stage of Bloom’s talent development model, he or she would be guided by a teacher who would focus on the learner’s unique qualities as scholar or performer. Opportunities to demonstrate one’s special expertise are sought and capitalized upon.

Bloom’s model is developmental, and addresses elite talent, with various factors playing a more important role at different points in time. Although the model addresses catalysts such as good teaching and peer and family support, it downplays the role of personality or social interaction factors in achieving SP/A. Also, the model is based on retrospective rather than current data, and diminishes the role of abilities as a source of elite talent.

In 1983, Abraham Tannenbaum proposed that giftedness (defined as high levels of g) in childhood would translate into critically acclaimed performance or production of great ideas (corresponding to SP/A) in adulthood under the following conditions: g is channeled into a specific talent domain, personality characteristics such as motivation and persistence are developed, recognition and support are received from some important stakeholder(s), and the individual capitalizes on being in the right place at the right time. As a further elaboration of the theory, Tannenbaum explains that g need not be equally high in every domain to achieve greatness. According to Tannenbaum, an outstanding physicist needs a higher IQ than an outstanding teacher. Similarly, personality variables may be more or less conducive to fulfilling potential depending on the domain at hand. Although a teacher and a physicist both need motivation and persistence to achieve excellence, a teacher may need to be more extroverted and gregarious than a physicist.

Tannenbaum’s theory views fulfillment of potential as domain specific, identifies outstanding performance or the generation of great ideas as a desired outcome, and highlights the importance of supportive teachers, family, and peers. He also stresses the roles played by personality and
capitalizing on opportunity. In these ways, the theory is consistent with the model we propose in this chapter.

Our view differs from Tannenbaum’s in that we substitute abilities for \( g \) because in the case of many important domains outside the intellectual and academic realm, general intelligence does not describe the foundational ability associated with great performance or idea generation. Sensitivity to sound and touch is more central to musical ability than IQ, and the spatial awareness and coordination required of a dancer or athlete trump \( g \) in those domains. Second, Tannenbaum does not frame his model in developmental terms. Tannenbaum identifies those variables that enhance or impede the transformation of \( g \) to outstanding performance or great ideas, but leaves the path from abilities to SP/A undocumented.

Gagné’s theory (2003) is also multifaceted and domain specific, and we therefore especially value its elegance. The model begins with abilities (which he calls giftedness or aptitude domains). Four catalysts transform those abilities either positively or negatively:

1. intrapersonal variables such as motivation and personality,
2. environmental conditions (surroundings, people, activities, and events),
3. developmental processes (learning, training, and practicing), and
4. chance factors.

Our research supports the key roles of the four catalysts described by Gagné. However, unlike Gagné, we assign weights to each variable in terms of importance at each developmental level. Finally, we pursue eminence or SP/A as our outcome, whereas Gagné’s model focuses on the transformation of giftedness or abilities into high-level expertise.

How Should Gifted Individuals Be Identified?

Most school districts use standardized ability and achievement test scores as the primary identifiers for inclusion in gifted programming (Feldhusen, Jarwan, Kanevsky, et al., 2000) because such measures are relatively inexpensive, easy to administer, and usually well normed. Yet, a quick review of the literature (see Kwiatkowski & Sternberg, in press) on gifted education reveals that new theories of gifted identification comprise a potential goldmine of new identification procedures.

We argue that the use of standardized ability and achievement test scores as the primary identifiers for inclusion in secondary-level gifted programming is both too narrow and too broad (Sternberg & Subotnik, 2000). Employing standardized test scores of ability is too narrow a standard because intrinsic motivation and a domain-relevant ability are key variables for real-life success, the ultimate criterion for adult giftedness (Subotnik, 2004). Concurrently, we argue against the use of standardized
criteria for program admission that include both quantitative and verbal excellence as this approach tends to deny opportunity to those with specific talents in one of those domains.

Abilities in all domains are too often assessed serendipitously. The two environments of greatest importance in assessing abilities are home (which includes realms of extended family as well as local cultural and religious organizations that are part of the family routine) and school. If the family culture values such abilities in any way, it is likely that the abilities may be noticed by a relative, clergyperson, neighbor, or coach. If an ability is not particularly valued by the family or community, unusual sensitivities may go unnoticed or be misinterpreted as strange or inappropriate behavior.

School is another place where abilities can be displayed. If a child expresses great interest in rhyming words, for example, her teacher may notice and praise her, even if her peers may ridicule her. More commonly, if there are no available opportunities to demonstrate unusual responses to enriching stimuli, an ability will likely stagnate. If there is no well-designed physical education or writing program available, for example, then it is not likely that any child with such proclivities will be noticed, especially if the family culture does not support or encourage athletics or writing.

Although schools and homes are petri dishes for talent identification, abilities can be assessed most effectively by artists/scholars. Renowned choreographer Eliot Feld and his colleagues visit hundreds of New York City third-grade classrooms to hold 10-minute auditions (Subotnik, 2002). Children are assessed on their visual memory for movement, their flexibility, their physical proportions, and their response to the music or task at hand. From these thousands of mini-auditions, Feld and his colleagues identify 800 to 1,000 students who receive free dance instruction. Approximately 10 percent of the students persist for more than a year or two. Eventually, 20 to 25 committed and clearly talented students are invited to attend his special school and highly regarded professional performance group, Feld’s wide-net assessment and nurturing of raw, untrained ability is an excellent model for all domains but requires the exquisite judgment of an experienced master.

Selective academic high school programs assess abilities with words or numbers by way of standardized tests. Teacher recommendations tend to be viewed with suspicion of bias or general distrust of their judgment. Rellying on standardized tests rather than a form of audition, however, makes the process of identifying abilities less content-valid, especially during the transition from competence to expertise of adolescents and young adults. Giftedness in adolescence is better identified through samples of poetry, creative stories, quantitative musings, or scientific reasoning revealed after exposure to excellent teaching and demonstrated receptivity to advanced instruction (Subotnik, 2004b).
Let us consider a specific example in the domain of music. The audition committee at The Juilliard School is regularly confronted with a number of highly competent young musicians vying for a small number of places in their departments. Maintaining a regime of disciplined practice serves to transform an individual’s competence into expertise. Further, managing adversity requires great personal strength to persist through the good and bad times of the talent development process.

Under those circumstances, the committee values those who appear to be ready to maximize opportunities for education in the conservatory. According to the Juilliard faculty, some candidates are clearly receptive to instruction and are “teachable,” whereas others are resistant to technical or aesthetic suggestions for change. Although great performers and creators are known for their unique ideas or techniques, there is a delicate balance between receptivity to ideas and confidence in one’s own judgment that emerges in the talent development process. When ensconced in the transition from expertise to artistry or scholarship, reliance on one’s own judgment, even stubbornly, may be essential and appropriate.

By the time candidates audition for conservatory in violin, they will have been playing for at least 10 years. The level of skill that is evidenced at the top music schools is tremendous, making selection for performance opportunities based simply on technique or even teachability virtually impossible. Other characteristics, such as practical and creative skills, and traits such as charisma, differentiate those who are given opportunities to perform or take on exciting jobs. Artistic directors look for a deep connection with the music and an ability to communicate it with zeal. This passion is magnetic, drawing audiences into the performer’s spell.

How Should Gifted Individuals Be Instructed in School and Elsewhere?

The methods used to identify students for special programming and the methods used to deliver such programming must match. If there is no match, then the children who are supposed to benefit from the programming may not be served appropriately. We promote instruction that develops students’ abilities into competencies, expertise, and finally into SP/A by balancing analytical, creative, and practical skills. Throughout the process of instruction, the teacher or mentor also capitalizes on key personality factors that with guidance will elicit the greatest potential for success in life, whether inside or outside the classroom.

Providers of high-quality instruction are deeply familiar with the acquired knowledge of a domain, including its criteria for excellence. They are able to design a clearly articulated set of problems and assignments that lead to mastery of increasingly challenging material. Highly competent students need to work in specialized environments, whether full-time, after school, or during summers.
Beyond Expertise

Without the chance to learn from skilled instructors, abilities may develop too slowly or even counterproductively. In addition, when a domain is highly competitive, insufficiently challenging instruction can hamper the schooling, training, or performance opportunities available to youngsters with high abilities. Special instruction should socialize pupils into the values of the domain, and provide peers that reinforce and challenge one another’s progress. In other words, a high-quality teacher, coach, or trainer channels abilities into competencies and competencies into expertise by introducing a series of sufficiently challenging experiences that can be practiced and mastered.

How Should the Achievement of Gifted Individuals be Assessed?

We believe that the development of giftedness follows the three stages we have outlined above: Abilities transform into competencies, which in turn can develop into expertise and finally into SP/A. Though the sequence of these stages is consistent across domains, the age at which an individual is expected to reach a given stage is domain specific, and therefore the assessment of giftedness should also be domain specific. For example, giftedness as a musician is assessed differently from giftedness as a poet. Even within a domain such as music, performance expectations for a 15-year-old violinist are much higher than for a 15-year-old vocalist.

In its early to middle stages, giftedness can be defined as a high level of competence in the domain of choice. For a violinist, for example, this would be reflected in solid technique. We propose that secondary programs for gifted students be domain specific and focus on developing expertise in those domains. The passage into the expert level of giftedness is defined by mastery of the field, encompassing a thorough knowledge of past trends, ideas, and occurrences. For a violinist, this would be, for example, the ability to interpret a piece of music in different styles that have been performed by earlier masters. Finally, SP/A is achieved when a musician employs his or her musical ability and expertise to engage a present-day audience in an emotionally moving or intellectually powerful experience.

In conclusion, we have presented here a model of giftedness by referring to the specific domain of music. The model defines giftedness as a transitional process in which different characteristics contribute to the transformation of abilities into competencies and expertise and, in exceptional cases, into scholarly productivity or artistry. This transformation is made possible through the interaction of innate abilities and context, as specified at each stage. We have also outlined how we believe education can best facilitate the passage from abilities to competencies to expertise and scholarly productivity or artistry. We offer this model, based on research in the domain of music in the United States, as a useful framework for understanding, comparing, and nurturing talent development in other domains and other countries.
ACKNOWLEDGMENT

Preparation of this chapter was supported by a grant under the Javits Act Program (Grant No. R206R000001) as administered by the Institute of Educational Sciences, formerly the Office of Educational Research and Improvement, U.S. Department of Education. Grantees undertaking such projects are encouraged to express freely their professional judgment. This article, therefore, does not necessarily represent the position or policies of the Institute of Educational Sciences or the U.S. Department of Education, and no official endorsement should be inferred.

References

Beyond Expertise

357


