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The Roeper School
A Model for Holistic Development of High Ability

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NURTURING THE GIFTED CHILD OR DEVELOPING TALENT? RESOLVING A PARADOX

The yeast of education is the idea of excellence, and that comprises as many forms as there are individuals to develop a personal image of excellence. The school must have as one of its principal functions the nurturing of images of excellence.

—Jerome Bruner

Success often comes to those who are too busy to look for it.

—Henry David Thoreau

THE PROBLEM

I had the pleasure of visiting the Roeper School twice in the mid-2000s during my tenure as a member of the Advisory Board of the Roeper Review. Meeting with the faculty and students there was a refreshing experience to me, especially when I saw many interesting ways in which the school structures student learning, and teachers work with students. I still remember an interactive session Marci Delcourt and I organized with a group of students on academic motivation. We discussed a range of issues from interest development to persistence in the face of setbacks. I found the atmosphere of the school conducive to the free spirit of the students, ready to explore the world and self, and open to new possibilities.

In this chapter, I discuss an issue that has lingered in the field of gifted education for a while and has not been well addressed, an issue that the Roeper School also faces if it is to further improve its quality of services to students. What I refer to is a tension between two approaches to gifted education. One approach focuses on the “whole child”: how the uniqueness of each child should be valued and how his or her educational and social-emotional needs can be met in the service of his or her optimal personal growth (e.g., Roeper, 2006; Silverman, 1993). The other approach focuses on talent development: what kinds of talent students demonstrate and how we go about identifying and developing these talents based on what we know about the trajectories of talent development and eminent accomplishments in adulthood (e.g., Subotnik, Olszewski-Kubilius, & Worrell, 2011; Subotnik & Rickoff, 2010). The Roeper School has shown much strength using the first approach. For example, a recent accreditation study based on a summary Don Ambrose created and distributed...
to all contributing authors at the beginning of this project, identifies the following strengths:

- Attention to the whole child; integration of the cognitive, social, emotional, motivational, and physical aspects of the student.
- Special attention to the social and emotional development of students.

Intrapersonal intelligence: learning one's own strengths, weaknesses, and motivations and then using that self-knowledge to guide one's own future development; students' individual interests as driving forces for motivation and learning.

The question is will this whole child education naturally lead to optimal talent development? There is no doubt that an intrapersonal focus on inner growth is a necessary condition for optimizing one's development for the benefits of society as well as the person involved. In this sense, the child-centred approach (e.g., Piechowski & Grant, 2001) is a viable approach to maximizing individual potential for living a productive and fulfilling life in an individual's own terms. In fact, my recent work on talent development (Dai, 2013; Dai & Speerschneider, 2012) treats talent development as a fundamentally fully personalized enterprise with a mission of finding one's own niche or destiny rather than conforming to certain external standards of success. In this regard, the Roeper School has been right in its educational philosophy. Is the child-centred or whole-child education approach sufficient to fulfill its goal when it comes to technical support and instructional guidance? Advocates for the talent development approach argued that it may not be sufficient (e.g., Coleman & Cross, 2005). The above-mentioned accreditation study, which identifies a need for improvement, provides evidence that a child-centred approach does not necessarily guarantee high motivation and self-initiative for talent development. For example, the report suggests that the School:

- find ways to balance faculty autonomy and student choice with the need for consistent academic excellence, and
- address some apathy that remains in the student body in spite of the school's student-centred philosophy and initiatives.

Taken together, there is a need to find a way in which the School can provide opportunities, structures, and support that ensure not only personal growth but also advanced talent and skill development in students' chosen areas (Dai & Coleman, 2005). In other words, how can we find a way to ensure that the pursuit of excellence in their chosen areas become part of students' intrinsic needs and that talent development becomes the right vehicle for their personal growth.

MY OWN JOURNEY

My research career started with a focus on motivation of gifted students (Dai, 2000; Dai, Moon, & Feldhusen, 1998). In these early years of my professional career, I fully embraced Gagné's (2005) Differentiated Model of Giftedness and Talent (MDGT), and considered motivation as a critical catalyst for translating natural gifts to highly developed talents. While working as a post-doctoral fellow at the National Research Center on the Gifted and Talented at the University of Connecticut, I ran into an article published in Gifted Child Quarterly by Grant and Piechowski (1999), who expressed concerns that a talent development focus would lead to “measuring a child's worth in terms of his or her accomplishments, rather than on the basis of the child's inherent worth” (p. 8). They argued for a child-centred gifted education that honors and respects children's own developmental agendas. At the time, the idea that gifted education should not be based on a utilitarian model with an exclusive focus on the instrumental value of talent resonated with me, but I was wary of the idea that children can somehow discover their own “inner agendas” or hear their own calling without significant social mediation, including adult-structured activities and adult guidance. More pertinent to the topic of this chapter, I wondered whether the affect and motivation conducive to talent development itself is socially mediated. In a response to their article (Dai & Renzulli, 2000), Joe Renzulli and I suggested an alternative possibility or direction for gifted education: integrating personal growth and talent development.

But let me be clear about what I mean by talent development and personal growth. Talent development is a process involving prolonged formal and informal learning in one or multiple domains, with highly committed efforts, deliberate practice, and extended problem solving and self-improvement, resulting in a unique set of specialized knowledge, skills, and dispositions. Taken together, these efforts facilitate (a) performance in domains requiring execution of advanced skills and problem solving (e.g., piano virtuoso, neurosurgery, or computer troubleshooting), (b) production of new and useful ideas and products (e.g., composing a piece of music, invention of a robot, or development of a scientific theory), and (c) major contributions to a particular line of human endeavor (Ericsson, 2006; Subotnik & Rickoff, 2010; Tannenbaum, 1997; Weisberg, 2006). The talent development focus in gifted education has the ultimate goal of developing "gifted leaders—people who make a positive, meaningful, and enduring difference to the world" (Sternberg, Jarvin, & Grigorenko, 2010, p. 53). It is quite natural that achievement, success, even eminent accomplishments are highlighted in such an orientation.

Personal growth, at its basic level, involves a developmental process of individuation in terms of behavioral, emotional, and intellectual autonomy. At a higher level, it can also mean the development of more refined understandings of the world and self, and the growth of interests, passions, values, commitments, and beliefs that transcend self-interests and ego-centrism (Dabrowski, 1964; Maslow, 1970), and potentially enhance the vitality of a society (e.g., constituting an important part of social and cultural capital; Renzulli, 2009). Personal growth is largely an affective agenda of education, treating personal meanings and aspirations as the basis for a good life.

It became clear to me in those early years that talent development entails personal growth, which is consistent with Grant and Piechowski’s (1999; Pichowski & Grant,
2001) position. I also believe in differential development by which the child’s own strengths, interests, and preferences are harnessed and organized to maximize their developmental potential and chances of success in adulthood. In our response to Grant and Piechowski (1999), we (Dai & Renzulli, 2000) quoted Annemarie Roeper’s (1996) following remarks to reinforce this position: “Do we want the child to achieve and succeed according to our homogenized standards or do we educate for self-growth and their success within it?” (p. 19). Clearly, forces driving one toward the goal of excellence should come from within rather than from without. However, I differ and still do differ from Grant and Piechowski on one count. I believe that the relationship between talent development and personal growth is a two-way street: they reciprocate. Talent development, when properly facilitated and guided, enhances and promotes personal growth. In this regard, personal excellence reflected in socially recognized achievement and success can be an important part of personal growth. This position is supported by the research by Amabile and her colleagues (e.g., Hennessey, 1997), who modified their early position on intrinsic and extrinsic motivation (see Dai & Renzulli, 2000 for a discussion).

About the same time, I was getting interested in a more general issue: the nature of intellectual functioning and development. I espoused a conviction through my anecdotal observations that highly accomplished individuals are the most passionate about their own work, but not necessarily the smartest. An email exchange with Robert Sternberg concerning the lack of research attention to this matter eventually led to a major effort (an edited volume) aimed at integrating motivation, emotion, and cognition in understanding intellectual functioning and development (Dai & Sternberg, 2004). In this volume, a wide range of perspectives enriched our understanding of the nature of learning, thinking, and performance, for example, the distinction between maximal performance and typical intellectual engagement (Ackerman & Kanfer, 2004) the role of self-beliefs on attentional and cognitive processes (Dweck, Mangels, & Good, 2004), the dispositional aspect of good thinking (Perkins & Ritchhart, 2004). These more nuanced understandings of intellectual functioning in real life rather than contrived testing contexts made me rethink the nature of giftedness. When I looked back at the founding fathers of the field, they did not separate the intellect and affect as we often do. To quote Francis Galton (1869) from his famous Hereditary Genius:

By natural ability, I mean those qualities of intellect and disposition, which urge and qualify a man to perform acts that lead to reputation. I do not mean capacity without zeal, nor zeal without capacity, nor even a combination of both of them, without an adequate power of doing a great deal of very laborious work. (p. 33)

In a comment on Gagne’s (2005) DMGT theory, I started to question Gagne’s definition of giftedness as some form of “pre-existing” ability to be realized by catalysts such as motivation, because there is an inherent value judgment in such a definition, built on the shaky assumption of test scores as indicating an invariant capacity. “I would venture to argue,” I (Dai, 2004b) wrote, “that passion for knowledge and dogged persistence are essential qualities (not just catalysts), sometimes even more important than whatever initial ability level one brings to learning situations, if one is to be highly successful in academic fields” (p. 160, italics original). In retrospect, I might add that ability types and thresholds for particular domains may differ, and developmental processes by which gifted potential develops and manifests itself are more dynamic (see Dai & Renzulli, 2008); also, there are multiple ways leading to high talent achievement ( Gottfried, Gottfried, & Guerin, 2006). A more contextual, functional, and developmental definition of giftedness serves us better than a static, ability-centric one (see Dai, 2010).

In more recent years, my focus has shifted to broader conceptual foundations of gifted education, including the nature-nurture debate (see Dai & Coleman, 2005). I continued the line of work I started in collaboration with Robert Sternberg, focused on developing an integrated approach to intellectual functioning and development that puts learning, thinking, and performance in situ, comprised of (a) the individual person as an agent who is capable of feeling, thinking, and acting in effecting changes (and experiences oneself as such); (b) a world of immediate or cognitively mediated (represented) objects, practices, tools, and systems, with distinct meanings and valences to the person; and (c) a community of learners who have their shared and unique dispositions and positional identities. This is a general framework, but nevertheless applicable to precocious and advanced development.

More specific to talent development, I proposed three key concepts crucial for understanding the processes of talent development: selective affinity, maximal grip, and staying at the edge of chaos, as three main facets of gifted and talent development in context (Dai, 2010; Dai & Renzulli, 2008). Selective affinity refers to the way individuals selectively attend to and choose certain aspects of their environments in cultivating their developmental niches or niche potential. Maximal grip refers to a process of striving for mastery of a practice or system that cognitively and affectively further propels individuals toward differential development (niches, trajectories, and pathways). The edge of chaos refers to critical points where individuals experience a psychological tension between the known and unknown, the old and new, or two systems of thought, and have to make decisions in dealing with opportunities, risks, and uncertainties engendered by such occasions. These central concepts represent an attempt to preserve the functional integrity, unique individuality, and the contextual dependency of human functioning while making generalizable claims about talent development. They integrate cognitive, emotional, and motivational processes at a particular juncture or moment of talent development, and help us design curriculum in a similarly integrated way to foster talent development.

It is important to note that these concepts are state or process constructs, not trait constructs; the latter are used by Gagné (2005) in his DMGT model. Trait models and state or process models have differing practical utilities: Trait models are good at classifying people and predicting long-range outcomes (e.g., using traits to predict long-term developmental outcomes in the longitudinal studies of mathematically
and verbally precocious children; Lubinski & Benbow, 2006). In comparison, state or process models are good at micro-level descriptions and explanations, including elucidating conditions and proximal processes necessary for achieving a particular outcome, thus more useful for curricular and instructional planning and interventions. For example, after reviewing the literature, and particularly in light of the integration of affect and personal knowledge development, I proposed six principles for curriculum design for talent development: the principles of a) optimal challenge, b) deep intellectual engagement, c) relevance, d) continuity of curriculum experiences, e) balancing breadth and depth, and f) integrating cognitive and affective experiences (Dai, 2010, pp. 237–239). A curriculum that treats knowledge and skill development not as a technical matter of acquisition but as an intimate process of building personal and social connections (e.g., Folsom, 2006; Tomlinson et al., 2002) would enhance the personal relevance and meaningfulness of the curriculum, hence deep intellectual engagement and personal growth.

To put this discussion of talent development and personal growth in a larger international or global context, I was struck most recently, as probably many American parents were, by a Wall Street Journal article entitled “Why Chinese Mothers Are Superior” (Chua, 2011). The article clearly struck a nerve on the American psyche in view of the fact American students don’t compare favorably in international comparisons, and a kind of parenting style we find egregiously authoritarian is claimed to produce wonder kids that excel in academics and arts (see Paul, 2011 for a balanced account). Although the notion of tough parenting with high expectations producing excellent kids is oversold in this article, the story of this “tiger mom” is revealing with respect to some important cultural differences regarding general child development with an emphasis on developing talent. The Western values of freedom and self-exploration to find one’s true self or “inner agenda” is confronted with the Eastern values of self-discipline and self-perfection; the Western style of child-centred parenting and education that values children for their intrinsic worth is confronted with the Eastern style of adult-centred parenting and education that attempts to prepare the child for the tough, competitive world out there; and the development of whole child as an educational doctrine confronted with academic competition to “race to the top.”

I am obviously biased in favor of the Western approach, despite the fact that I was born and raised in China. However, the notion that the Chinese culture assumes strength and the Western culture assumes fragility in children (see Paul, 2011) struck me as an important insight regarding cultural folk beliefs about the child and child development. Cultural differences aside, we should ask ourselves that, for the sake of both talent development and personal growth, do we need to push our students harder, sometimes out of their comfort zones in order for them to grow? My answer is yes. I feel the same way as Carol Dweck (2006) does that Americans are not doing well in this category. A related question is: Do we need to give our children or students sufficient space for self-explorations and development of personal interests and identities? My answer is a definitive yes. I believe Americans are doing better in

this category than, for example, China. To me, it is a matter of balancing discipline and freedom in education, and knowing when we need discipline and when we need freedom.

RESOLVING THE PARADOX

If a talent development orientation is compatible with a personal growth orientation, then what does it mean for curriculum and instruction? There are two main implications. The first is that specialization at appropriate developmental conjunctures is needed as a way to foster deep engagement and help students gain deep experiences (Subotnik & Coleman, 1996). This is why Whitehead (1929) claimed that “in education wherever you exclude specialization you destroy life” (p. 10). Renzulli (2009) sees “romance with a topic or discipline” as a necessary condition for talent development, whereby children are expanding their personal horizons and developing life themes that are bigger than themselves. In this sense, a talent comprises not only a set of cognitive skills, but attitudes and values as well; developing a talent is to experience a way of social practice of thinking, talking and acting that carries distinct values and meanings (Gee, 2003). Only through deep engagement can one truly develop insights into a domain, and consequently a firm commitment to the values and visions of the world it embodies. Besides, there is also clear importance in timely special training in technical domains, such as mathematics and computer science, as it usually takes 10 years to develop high-level expertise in skill domains (Ericsson, 2006). Early specialization can enhance a person’s chance of an early debut of a creative career (Simonton, 1999). Specialization in any pursuit does not mean that one cannot change interests and career aspirations once a commitment is made. Rather, specialization is intended to produce transformational experiences for the person, regardless of how these experiences will benefit one’s future development. Some may hear one’s calling from doing a major science project, others may find the experiences beneficial in broadening their intellectual horizons. Some individuals are more single-minded in their pursuits, and others are pursuing talent development on several fronts, changing gears when new opportunities emerge. Either way, it is likely to benefit both talent development and personal growth.

The second implication has to do with structured environments and the role of adults (teachers and parents) in talent development. The editors of a recent volume on “social-emotional curriculum” concluded that while children should be encouraged to develop self-direction and take personal initiatives in talent development, “without the critical and appropriate involvement of adults important in each child’s life, there is ample reason to believe that development approaching optimum in both the cognitive and affective domains is unlikely” (Cross, VanTassel-Baska, & Olenchak, 2009, p. 365). From an affective point of view, talent development provides a context for development of affective and motivational characteristics deemed necessary for sustained talent development, in terms of taking a particular structured path to gaining expertise and demonstrating excellence by professional standards. Learning
the hard part of a discipline can be challenging to even the brightest minds, and development of tenacity and persistence is part of personal growth that would not be developed “automatically” but can be nurtured through rigorous training in talent development. Thus, talent development demands character building along with skill development. To meet these challenges, teachers need to take a proactive role in nurturing students’ coping skills and positive attitudes in the face of setbacks, rather than taking a laid-back attitude, accepting mediocrity in the name of protecting student autonomy or a sense of self-worth. Resilience is a virtue that can be nurtured through talent development for the sake of children’s long-term development and happiness.

One major socializing role of adults (teachers and parents) is to help children better understand the world and themselves and negotiate a path to a productive and happy life. Personal excellence (to give one’s best) should be the expectation we hold for our most promising students, while granting much flexibility and freedom for them to choose paths deemed promising and productive for them. Some might opt to do technology work, and others arts, and still others writing or helping the socially disadvantaged. Striving for excellence is an important way, if not the only way, to self-actualization (Maslow, 1970).

What if high standards of excellence are not valued and stressed? Will children spontaneously develop high standards for themselves? I strongly doubt it. For most educators, a gifted education program should be held accountable for whether it provides a challenging curriculum that is commensurate with the capabilities of a particular group of gifted learners, and whether it is effective in achieving its goals and standards. A problem with the argument that children should be allowed to set up their own standards is that children may not be in a position to tell whether they are exceeding or falling short of what is needed for advancing their talent to the next level. For example, a student aspiring to build intelligent robots in the future needs to be told what levels of mathematical and computer skills he or she needs to possess. Left to their own devices, children may fail to realize the importance of certain necessary steps needed to be taken to measure up to the challenge until it is too late. This is a cognitive reason, of course, why teachers need to take a proactive role. However, similarly important is the affective agenda of helping students realize the significance of a particular line of work in which they are engaged. For that matter, an important part of education is to figure out a way to kindle interests and motivations within the child through an affective curriculum that promotes high personal standards for excellence.

TOWARD AN AFFECTIVE CURRICULUM FOR TALENT DEVELOPMENT

My position is quite clear by now: I am advocating a gifted education that aims at talent development and excellence (i.e., the primacy of the domain excellence criterion in gifted education), but with a distinct personal touch; that is, the sources and impetuses should come from within the child, and we now know much about how to nurture and cultivate this affective part of talent potential along with the cognitive one to promote personal excellence.

Typically, a school has an explicit curriculum that emphasizes academic skills and knowledge. But rarely is there an explicit affective curriculum along with the academic one. If our understanding of the close connections between personal growth and talent development is correct, then the personal growth side should be more distinct and explicit in our curriculum, and how talent development engages the affective and motivational development needs to be better articulated. Following the commonly accepted practice, affective characteristics in the curricular context include any emotions, attitudes, values, desires, aspirations, and personal dispositions (e.g., resilience) that either move students forward or hold them back (e.g., negative affects or flat affect). In the following section, I (Dai, 2013; Dai & Speerschneider, 2012) delineate an affective Cope-and-Grow curriculum model that has implications for the scope and sequences of curricular and extracurricular activities, as well as pedagogical strategies aimed to promote personalized talent development.

Cope and Grow: A Model of Affective Curriculum

The Cope-and-Grow Model is based on a dual process theory of expanding one’s personal agency and horizon (Grow) while dealing with stressful events and negative emotions (Cope) (Boekaerts, 1993; Dai, 2004a; Dweck, 1999). Coping and growing are flip sides of the same coin of responding to environmental opportunities and challenges, depending on how individuals construe their experiences (see Figure 1). To illustrate this point, an activity can be perceived by one person as opening a new horizon but perceived by another as too much to handle. Specifically, the Cope-and-Grow Model is based on the following three interrelated arguments:

Proposition 1. Human beings as active agents experience the world in terms of personal meanings and valences (e.g., opportunities and threats), and experience themselves as a form of personal agency capable of effecting changes (or for that matter as lacking in agency). This dynamic of personal meaning and effectiveness is the main source of positive and negative affects.

Corollary: An affective curriculum should be a cyclical process of action and reflection that promotes the human agency and the potential for growth (Grow) and supports coping efforts (Cope).

Proposition 2. The dual process of expanding oneself (open to the opportunity to expand one’s personal agency and horizon) and preserving oneself (the need to maintain positive affect and self-worth, sometimes even at the cost of learning and growth) plays an important role in human development. Successful coping with stressful situations and negative affects can become a growth experience in terms of gaining personal strength.
Corollary: An affective curriculum should turn coping efforts into growing experiences (i.e., Cope to Grow) and expand coping resources by helping students cultivate inner strength (i.e., Grow to Cope).

**Proposition 3.** Highly able students have an advantage in expanding their personal horizons and building their personal visions and life ambitions (i.e., more inner resources to work with, more potential for Grow), but they also have to cope with issues related to their personal ambitions, such as high expectations, more performance pressure, and negative affects, such as alienation from others and discontent with the world and self-doubts and dissatisfaction with oneself (more issues to Cope with).

Corollary: The focus of an affective curriculum for talent development should be on cultivating personal strengths and promoting personal visions (Grow) as well as addressing their extra burdens of coping: (a) living up to one’s high personal standards and goals, (b) ward off social pressure of varied sorts, and (c) dealing with the fundamental instability (negative affect) of inner life (Cope).

In short, an affective curriculum is meant to optimize personal dynamics for talent development through enhanced growing experiences and supported coping experiences. Thus, an affective curriculum is by nature growth-oriented, rather than deficit-oriented (cf. Peterson, 2009).

As illustrated in Figure 1, the enactive self (I-Self) is engendered through guided personal actions, such as guided self-explorations and interest development, through which a sense of agency will be gained, life themes will emerge, cross-validation of ideals and ambitions will take place, and a sense of purpose will be crystallized. Developmentally, the enactive self is initially more spontaneous (e.g., sustaining an interest for a prolonged period of time) and then becomes increasingly deliberate (e.g., executing and keeping track of a plan for a science or art project). In contrast, the reflective self (Me-Self) is enhanced through guided self-reflections, problem-based versus emotion-based coping with setbacks and negative emotions, and through the evolution of self-identity from simple self-perceptions to deeper self-understandings of feelings and emotions about the world and self.

**Three Guideposts: Age, Domain, and Developmental Considerations**

An affective curriculum should be commensurate with the cognitive and affective changes and transitions at particular points in development. Age-appropriate meaning-making and exposure to various areas of human activity is important as children of different ages perceive and feel about domain experiences differently. When to usher a child into a realm of meaning and valence is an important decision; building a rocket or cleaning a river may be highly meaningful to an 8 year old, but building a technique to move molecules around or creating artistic expressions that are meant to shock instead of pleasing our senses may not. Sometimes it is social, cognitive, and affective maturity, and sometimes it is not age per se, but constraints in experience and knowledge that go with particular ages.

There are domain considerations, namely, how to provide the kind of domain experiences that develop deep interests, personal meaning, and commitment. For example, social studies and language arts can afford personal appreciation of certain cultural values (e.g., empathy or social justice) more directly than, say, mathematics can. Motivationally speaking, arts are more expressive and can provide more immediate reward and gratification (i.e., positive affect) than sciences, which are more instrumental than expressive and entail epistemic motivation and intellectual curiosity (i.e., cognitive motivation). Thus, each domain has its own unique affordances in terms of affective rewards and motives. Domain considerations also include situations that pose challenges, constraints, and barriers. What if a child is interested in engineering but not interested in mathematics, or interested in becoming a public servant but dreads public presentation? How do we build the child’s self-efficacy and interests to optimally develop the skill set necessarily for a particular line of talent development? These are questions that should be used to guide curriculum decisions.

Besides age and domain, there are developmental considerations that can be used to guide an affective curriculum: Talent development can be seen as negotiating one’s pathway through developmental corridors, which are the structured spaces and paths open to individuals, through which students traverse and developmental trajectories are formed. This does not mean the paths of talent development are fixed; rather, it means that talent development is constrained by what is offered and supported in the environment over time. For example, the current curriculum structure at the Roeper School attempts to provide individualized developmental corridors within the constraints of faculty expertise. Developmentally, it is the range of learning experiences we provide to students at different junctures of development with their unique sets of sensitivities and sensibilities that eventually shape the way a person develops. The notion of developmental corridors fits Feldman’s (1994,
2009) notion of universal and unique development: developmental corridors can be as wide as accommodate most people initially; however, as one moves toward one’s unique niche in talent development, developmental trajectories become increasingly unique (i.e., increasingly differentiated interpersonally and intrapersonally).

When one traverses through a developmental corridor, milestone events will occur. Developmental milestones are significant or critical events that shape one’s self-perceptions, interests, and commitments. For example, successfully overcoming internal and external barriers, successful completion of a major project, winning an achievement-related award or science competition, getting to know a mentor, can all become significant turning points in one’s life. Connecting these proverbial footprints of traveling through developmental corridors, we will find longitudinal patterns and meaningful sequences of developmental events. The term developmental trajectory means that talent development follows a tractable pathway in an orderly fashion. For example, one cannot develop commitment without first developing interest/self-efficacy, and one cannot develop advanced skills without significant foundational knowledge, so on and so forth. Sometimes issues and conflicts in early development (e.g., self-doubts) can resurface at the later stage to disrupt higher-level development (e.g., relinquishing a commitment), very much like how Erikson (1968) characterized personal development: new properties at each stage build on developed components in the previous development but are also constrained by these components.

Delineation of an Affective Curriculum by Stage

The proposed Cope-and-Grow Model is based on extensive research on talent development (Bloom, 1985; Ciskzentmihalyi, Rathunde, & Warren, 1993; Gottfried, Gottfried, & Guerin, 2006; Lubinski & Benbow, 2006; Subotnik & Coleman, 1996). Given that talent development goes through stages and transitions, the model specifies four stages, each having its own major opportunities and challenges.

In the following section, I delineate an affective curriculum of talent development. For pragmatic as well as developmental reasons, I discuss curriculum provisions in the context of stages of development, based on a multi-level theory of talent development I described in my book (Dai, 2010) as well as the Cope-and-Grow Model discussed earlier (Dai, 2013; Dai & Speerschneider, 2012).

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<th>Levels of development</th>
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<td>Foundational stage</td>
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Figure 2. Developmental stages and major psychosocial themes in affective development.

NURTURING THE GIFTED CHILD OR DEVELOPING TALENT? RESOLVING A PARADOX

The foundational stage. For the Foundational Stage, which roughly covers preschool and most part of elementary school years, during which children still develop their basic mental instruments (e.g., 4Rs: reading, writing, arithmetic, and reasoning), their behavioral patterns are still relatively spontaneous rather than deliberate, and they are still developing emotionally. During this stage, we emphasize the enactive aspect (I-self) of affective growth. Specifically, the focus for this stage is Agency and Will ("I can," "I will"). A sense of agency is promoted through a variety of meaningful activities (Grow), and children's willpower, is fostered by helping children cope with and overcome internal barriers such as fear and anxiety, instant gratification and lack of persistence (Kuhl, 1985; Mischel, Shoda, & Rodriguez, 1989), as well as external barriers such as peer pressure, lack of stimulation, and support (Reis, 2006).

A curriculum of talent development at this stage should encourage five forms of agency: expressive, technical-inventive, intellectual, social, and psychomotor. Expressive agency is expressed in activities involving writing, drawing, imaginative play; technical-inventive agency is expressed in activities involving making, building, modeling things; intellectual agency is expressed in activities involve reasoning, understanding, explaining, theorizing; social agency is expressed in activities involving communicating, negotiating, collaborating, and leading; and psychomotor agency is expressed through coordinating body movements to accomplish complex tasks. Cultivation of a variety of artistic, instrumental, intellectual, and social excitements and life themes through exploratory activities should be the mainstay of the curriculum. Children not only develop and demonstrate respective capacities (talents) through these activities; they also experience personal agency and positive affect through these activities, which is an important source of intrinsic motivation to expand the self. Specific “growth” activities to generate such experiences include the following:

- thematic units of personal and social relevance;
- mini-projects that engage personal agency and initiative;
- a variety of enrichment activities to induce “romance with a topic”;
- a range of books to expand the intellectual horizon; and
- group or enrichment cluster activities to cross-validate their experiences.

Through the “growth” experiences, “habits of mind” can be nurtured in formative years, such as intellectual playfulness, intellectual risk taking, tolerance and high thresholds for frustration, coping with anxiety and fear of failure, and reflection. In the Cope-to-Grow model, gifted children particularly need challenges and experiences of setbacks to develop coping skills and will power (e.g., normalization of “failures”; developing an incremental mindset; Dweck, 2006). When the sources of obstacles are mainly external, how to instigate aspirations and a sense of personal agency through empowering experiences becomes essential (Olenchak, 2009).

The transitional stage. (Roughly starting in middle school and continuing in high school years). Compared to the Foundational Stage, the Transitional Stage features
more formal learning of disciplinary knowledge and more systematic development of academic skills, such as critical reading and scientific methods. Developmentally, children are making an important transition from other-direction to self-direction, with increasing autonomy and responsibility. The period is marked by the onset of puberty, heightened reflectivity, the increased ability for self-direction, and affective vulnerability. Stable peer groups start to form in school and neighbourhood, and popular media become a distinct competing attraction; through social comparison and group identification, self-categorization takes place, leading to distinct patterns of self-efficacy appraisals, self-concepts, interests, and value orientations (i.e., a more differentiated sense of self). Interests and self-efficacy appraisals take on a new level of reflective consciousness in the face of increasing intellectual challenges. Gender differences and gender roles emerge as a significant force differentiating girls and boys' interests and preferences (Dai, 2002).

Educators designing an affective curriculum at this stage should seriously consider early teens’ emergent strengths as well as their uncertainties about themselves and vulnerabilities, and design activities accordingly. The priorities of an affective curriculum of affect at this stage include building self-efficacy or agency beliefs, coping skills, and resilience, coupled with opportunities for developing more differentiated and deeper expressive, technical-inventive, intellectual, social, and psychomotor interests or enduring life themes. It is important to offer enrichment and extracurricular activities to encourage self-initiative (Larson, 2000) and opportunities and support for developing personal interests (Barron, 2006). Social-emotional issues such as achievement-affiliation conflicts, perfectionism, and the big-fish-little-pond-effect can occur as students are coping with the new academic and social challenges. Guidance and counseling for promoting self-awareness and self-understanding and developing coping skills may also supplement these efforts. Curricular and extracurricular activities can include:

- activities that encourage risk taking and endeavors that are out of one’s comfort zone;
- projects that expose students to frontiers of knowledge and technology;
- field trips that expose students to new horizons and possibilities;
- reading of biographies that provide role models for aspiring students;
- focus groups on sharing affective experiences and forming support groups; and
- training coping skills and developing resilience.

Both integrated approaches and independent sessions can be organized, and school counselors can collaborate with classroom teachers or gifted specialists in developing a coherent plan. For more detailed recommendations, see Hébert (2009), Kitano (2003), Moon (2009), and Peterson (2009).

The crystallizing stage. (high school and onward). For most gifted and talented students, this is a period of development of advanced knowledge and skills. It should be a period marked by a heightened sense of personal meanings of knowledge pursuits, commitment, and identity, leading to a clear sense of self and future (Dai, 2010). If early stages are characterized by more or less spontaneous, self-organized patterns of “characteristic adaptation” to the curriculum offerings, this stage shows more deliberate self-direction; typically, commitment is deliberately made to pursue advanced knowledge and skills that most peers would not have (e.g., challenging electives, Advanced Placement classes). Self-motivation is apparent, often sustained by participation in a scholarly or expert community, and can be both expressive (playful enjoyment) and instrumental (driven by skill improvement). Internal barriers such as the big-fish-little-pond-effect, perfectionism, and self-doubts still can occur, particularly when highly challenging materials are introduced and peer groups are also highly competent (Dai & Rinn, 2008). However, personal meaningfulness of a particular pursuit is of more concern. Providing opportunities for advanced level projects, mentorship experiences with experts, and encouragement of personal initiatives and leadership should be on the affective agenda. Curricular activities for this stage can include:

- taking challenging AP classes and honor-level classes;
- independent or team projects that deal with authentic problems and have a real impact;
- mentorship experiences with experts in a one’s chosen field;
- participation in summer residential and networking with kindred spirits through local organizations and Internet; and
- career counseling programs to facilitate crystallizing experiences and career planning.

Although many occasions can generate “crystallizing experiences” (Walters & Gardner, 1986, p. 307), this stage is the most important for developing a clear sense of direction and purpose, or a personal niche (Dai & Renzulli, 2008; Olenchak, 2009). Commitment and identity formation mark the important milestone events. Characteristically, a personal vision of one’s future will not fully develop until one has done significant amounts of advanced work in a domain, as in the case of finalists of the Intel Talent Search Program.

The advanced development stage. (college and onward). By advanced stage, we mean students having already made their choice on a particular career path, and invested their energy and time in a professional endeavor (e.g., starting a company, or pursuing a college degree and beyond). Although there are exceptions, typically students will not enter this stage until college, even graduate studies. Concerns in this stage are about successful completion of advanced training and the ability to make creative contributions to a domain in which individuals chose to work. The goal of affective curriculum in this stage goes beyond identity and commitment: it is to develop a personal vision of how one can make professional contributions in a domain (Shavinina, 2009) and to develop effective ways to cope with setbacks and failures, frustrations and self-doubts (i.e., building perseverance).
Mode of Delivery and Pedagogical Strategies

As can be seen, an affective curriculum for talent development/personal growth does not need to be a separate one but can be integrated into curricular activities meant to develop capacities or talents. Moon (2009) distinguishes between direct and indirect forms of an affective curriculum, direct instruction of affective knowledge and skills, and indirect methods of creating climates and conditions for optimal affective experiences and motivations. The best way to carry out an affective curriculum, in my opinion, is through various non-didactic, “non-intrusive” methods, such as mutual validation of the importance of the curriculum, sharing affective concerns among peers, modeling by the teacher or peers, and biographic methods. The Cope-and-Grow Model specifies two modes of curriculum: enactive and reflective; the former is experiential and the latter uses personal experiences as an object for reflection or “processing” (Peterson, 2009). Both are non-didactic, using strategies to induce affect, meta-affect, and self-understandings rather than teaching students what they should do and how they should feel (see Moon, 2009 for a distinction between indirect and direct teaching). We specify three main tools and resources to support the curriculum delivery: (a) Engage students in structured activities for experiential gains, (b) organize social group activities for cross-validation and perspective taking, and (c) use media (books, videos, Internet sources) to build a broad vision of the world and life. A counseling component is warranted whenever there is a need for addressing specific problems, including internal and external barriers for talent development and personal growth.

CONCLUSION

The Roeper School has been a pioneer for the kind of formal schooling that is tailored to individual students’ developmental needs rather than ignoring these needs for the sake of administrative convenience. I submit that the School also can be an even more promising venue for integrating talent development and personal growth, wherein both diversity and excellence are promoted and honored. It already does this admirably but it’s also known as an institution striving for continuous improvement; consequently, it will not shy away from opportunities for refinement. I envisage a curriculum structure that provides “developmental corridors” wide and flexible enough to allow students to excel and succeed in their own ways and rigorous and challenging enough to ensure that its graduates will rise to the challenges ahead of them after they leave the school. Building capacities, developing passions, and nurturing good habits of mind are all important and should be parallel goals of education aimed at producing leaders in various areas of human endeavor, leaders who are not only well equipped with high talent, but also determined to make a positive difference to the world. For that matter, an affective curriculum seems imperative.

REFERENCES


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