

Reis, S. M., Renzulli, J. S., & Delgado, J. (2023). Wise choices for children: Enabling students to develop their creativity productivity and wisdom with opportunities, resources, and encouragement. In R. J. Sternberg, J. C. Kaufman, & S. Karami (Eds.). *Intelligence, creativity, and wisdom* (pp.315—338). Palgrave MacMillan.

Wise Choices for Children: Enabling Students to Develop Their Creative Productivity and Wisdom With Opportunities, Resources, and Encouragement

Sally M. Reis
Joseph S. Renzulli
Julie Delgado

University of Connecticut

“Knowledge talks, but wisdom listens.” Jimmy Buffett

Many complementary and conflicting theories exist regarding wisdom, creativity, and intelligence and questions linger about how to define each. Are these constructs separate, co-existing entities, or do they overlap to a small or considerable degree? Are individuals born with these constructs or are they learned? Does high ability in one area suggest the existence of strong abilities in another? How do innate abilities interact with personalities, contexts, and environments? How do we translate these theories into meaningful practice in schools and classrooms? And what about the interaction of wisdom and creativity, and the need to couple one’s intelligence and creativity with one’s intelligence for positive and perhaps excellent outcomes. Aristotle explained that excellence was the wise choice of several alternatives: “Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution.” He further elaborated on the difference between theoretical wisdom, concerned with unchanging truths, not with things that we can change, and practical wisdom, which according to Aristotle, concerns the things we can change, such as the education we provide in the schools attended by our children.

In this chapter, we discuss the interactions and intersections of wisdom, creativity, and intelligence as exhibited by children and young adults. In our almost five decades of research with this population (Reis & Peters, 2021) on the development of the Schoolwide Enrichment Model (SEM, Renzulli & Reis, 1995, 1997, 2014), we have worked in hundreds of schools, and with tens of thousands of teachers and school-age students on developing interests, abilities, creative productivity, and ultimately and hopefully wisdom. One major focus of our work in developing the SEM has been to give students opportunities across all domains and areas of interest to use their talents to solve problems and make their world a better place (Reis & Renzulli, 2022). Given our longevity in this work, we have also been privileged to know the adults that many of these young children have become. This has given us the opportunity to probe the ways in which their elementary and secondary school experiences helped to shape them as they ultimately become wise and good people who use their talents to do good work. In this chapter, we discuss definitions of intelligence, wisdom, and creativity and more important,

the way we combine them in the development of talents in school-aged children. We also describe the ways in which we integrate our own work in the development creative productive giftedness within the SEM with our desire to develop personal wisdom, as we suggest opportunities, resources, and encouragement for students social and emotional development and pursuit of meaningful work in the future that makes a difference.

Intelligence

Intelligence has been studied for centuries and multiple theories abound. For example, intelligence has been described using biological constructs such as general intelligence, as a singular concept (Spearman's *g*, 1927) or as a broad, autonomous, yet intertwined intelligences described in Gardner's theory of multiple intelligence (MI, 1983) or as adaptive (Sternberg, 2021). Sternberg's recent work explains that intelligence exists in the interaction between the person, task, and situation, which is aligned with our belief that gifted behaviors occur in certain people, at certain times, and under certain circumstances (Renzulli & Reis, 2014). Our work has also probed the combination of personality traits and environment that results in our desired outcome, the development of creativity, wisdom, and task commitment. Below, we discuss other theories related to intelligence that interact with and complement our work in talent development called The Schoolwide Enrichment Model (SEM, Renzulli & Reis, 2014). The SEM provides enrichment for all students to achieve three goals: to try to develop the latent talents in all students, to provide a broad range of enrichment opportunities for all students, and third, to give opportunities for advanced follow-up enrichment projects for those students capable of more advanced level work. The SEM focuses on enrichment for all students by giving them high levels of engaging learning experiences constructed to develop students' interests and ultimately, their talents.

Multiple Intelligences

The theories related to intelligence that interact with and complement our work include primarily the work of our colleagues, Howard Gardner and Robert Sternberg. Gardner's (1983) multiple intelligences theory explained intelligence as a collection of distinct, yet interactive intelligences rather than a unitary entity. His systems-based theory originally proposed seven intelligences, with an additional intelligence in 1995: linguistic, logical-mathematical, musical, special, body-kinesthetic, interpersonal, intrapersonal, and naturalist. Individuals may show advanced or deficient capabilities in these; however, most individuals display a balance across the various intelligences (Gardner, 2006). MI theory could be used to enable educators to meet the diverse needs and cognitive strengths (or weaknesses) of their students by matching some teaching strategies and practices to the unique classroom makeup of students various talents and intelligences. Despite its initial popularity in the educational community, mixed reviews exist for MI by psychologists and professional educators including lacking research evidence, suggesting the importance of using multiple method analysis (Sternberg, 2020). We have witnessed poor implementations of MI in educational settings, perhaps because Gardner never intended his theory to be applied to bulletin boards, centers, or curricula developed separately around each of these intelligences but rather as a way of examining the overarching purposes of schooling and future conceptions of what schools might become (Gardner, 1995). However, the original ideas of this theory integrate well with our SEM that focuses on developing one's diverse talents and abilities across a wide range of enrichment experiences.

Successful Intelligence

Another systems-based theory that has application to schools and our SEM approach is Sternberg's (1997, 2003) theory of successful intelligence. Successful intelligence is the successful ability to plan, execute, and adapt personally relevant goals, given one's sociocultural context and environment (Sternberg, 2020). Successfully intelligent people utilize their strengths and offset their weaknesses. This involves balancing three intelligence aspects: analytical, creative, and practical. Analytical intelligence engages information-processing while analyzing, evaluating, judging, or comparing and contrasting. Creative intelligence employs the generation of original and possibly effective ideas. Practical intelligence is applying information-processing components of intelligence to adapt, shape, and select environments, used in everyday life problems. The use of wisdom-based abilities helps direct ideas toward the common good (Sternberg, 2020). Sternberg's broad understanding of intelligence is useful in any educational setting and operationally defines intelligence as applied to our talent development model, the SEM, as explained later in the chapter.

Adaptive Intelligence

Sternberg (2021) subsequently proposed the interaction between person, task, situation, and the individual's ability to adapt in his Adaptive Intelligence theory. This idea built upon Sternberg's (2007) person x task x situation interaction, where he described intelligence as an activity involving a set of skills and information processing within the brain. The concept of adaptation includes the ability to learn from and change one's behavior based on the environment as well as modifying or selecting a new environment due to various circumstances. How well can people handle different types of situations? One must learn to handle a broad assortment of tasks presented in an obscure range of situations. Exposure to many different types of learning opportunities, events, ideas, and subsequent training to be flexible in their approach to and understanding of problems, information, and solutions is essential both in and out of the classroom is core component of our school-based work in our SEM approach to talent development.

A broad range of characteristics exist in the group labeled intellectually gifted, differing in clusters of abilities such as creativity and task commitment, which integrates concepts such as self-regulation and sustained effort (Reis & Renzulli, 2020). In this way, Sternberg's newest work on Adaptive Intelligence fits our research on students' needs to develop a broad base of abilities, including mastering both mundane and creative tasks, often presented in ambiguous ways, with uncertain solutions. One may focus on social intelligences, creating positive action resulting in positive differences within communities and globally. Another may employ more practical, emotional, or cultural intelligences. Later in this chapter, we will explore using our unified educational approach to apply intelligence, develop creativity, and task commitment to solve problems that contribute to both creative productivity and ultimately, to the development of wisdom.

Creativity

As with wisdom, there is no definitive definition of the construct of creativity, but rather, a plethora of theories about its meaning. Some of these theories complement our work in the

SEM. For example, most scholars agree for something to be considered creative, it must be both new or original and useful, appropriate, and/or valuable (Lynch & Kaufman, 2019; Runco & Jaeger, 2012) and is context dependent (Kaufman & Beghetto, 2009; 2013). Novelty or originality is foundational to creativity, regardless of the definition chosen (Weisberg et al., 2021) and creative metacognition combines creative self-knowledge (knowing one's own creative strengths and limitations, both within a domain and as a general trait) and contextual knowledge (knowing when, where, how, and why to be creative) (Kaufman & Beghetto, 2013, p. 160). The Four C Model (Kaufman & Beghetto, 2009) describes four developmental levels of creativity across a lifespan, from everyday creativity to eminence. Vernon and colleagues (2016) analyzed the use of creative problem solving (CPS) tools, finding both convergent and divergent thinking and contributing factors of knowledge and motivation taking place at each of the three common stages (finding of facts, ideas, and solutions).

Runco and Jaeger suggested the standard definition of creativity requires that original things must be effective to be creative (2012). Originality, sometimes labeled unique or novel, is not enough to be creative, it also needs to be effective, also referred to as useful, fit, appropriate, or valuable, a balance must be reached for creativity. Value takes on meaning and is subject to change based on sociocultural judgements, time, and influence (Kaufman & Beghetto, 2009, Weisberg, 2015). Weisberg (2015) argued value is not necessary and in fact can interfere with the study of creativity because of the changing value systems in both common-sense and scientific understandings due to subjectivity. Weisberg (2015, 2018) believes that creativity should be defined as novel and intentional, aside from any value placed on it. An individual must have intention to achieve the goal, idea, or product and intention in the process of achieving as the second indicator of creativity and this also applies to our SEM approach, as students complete work with intention to create products and services.

Personal Creativity

Runco (1996) describes creativity as multidimensional, reflecting a special combination of traits and skills, coupled with the three main components of creativity: intention, motivation, and transforming the objective into something original. The transformation of the objective world is experienced by individuals of all ages, yet it is not always unique or useful, therefore it is not always creative. Transformation moves individuals beyond solving problems through personal logic and hypotheticals, adapting their personal interpretations to reflect and evaluate their innovations. Creative individuals may transform a problem into a cognitively motivating challenge by interpreting a problem or event more flexibly. To be effectively creative, Runco believes that one must use discretion, or make mindful choices, about their transformation of the problem, information, and context. This leads to the intentionality of the person, another facet to Runco's definition of creativity, and one that is still debated today. Children may unintentionally do, say, or produce something unique and valuable, while other times they can be strategic in their efforts. Runco's description of creativity is useful for school aged children and our SEM approach that integrates intention, motivation, and transformation.

Four C Model of Creativity

Kaufman and Beghetto's (2009) hierarchical conceptual model for creativity expands the Big-C/little-c distinctions (Beghetto & Kaufman, 2007). Mini-c is personally meaningful,

process focused, novel learning experiences and interpretations set within a specific sociocultural condition, similar to Runco's (1996) conception of personal creativity. Focus moves away from the intrapersonal mini-c to everyday creative expressions and actions that make a contribution as judged by an external source such as a teacher, parent, or colleague. Pro-c status is for professional creators that have yet to reach the eminence or considered groundbreaking, yet their work advances their field. Big-C contributors are eminent, responsible for a breakthrough in their domain.

Creativity has been described as a 21st century skill and one of our most important economic resources, making it crucial for organizational progress (Kaufman & Beghetto, 2009; 2013). According to this work, creativity helps students develop and monitor self-knowledge, self-reflection, and self-regulation (Kaufman & Beghetto, 2013). We believe that talent development and creative productivity can be developed when students engage in the excitement, wonder, and formidable nature of creative productivity throughout their schooling and subsequently, become likely to seek creative work and challenges into adulthood (Reis & Peters, 2021). SEM provides the organizational resources to be able to develop creativity in and out of the classroom through enrichment and talent development opportunities.

Wisdom and Wise Choices

As noted earlier, wisdom is a complex construct used in many ways, for example, to explain cultural histories and values and their complex associations of an ideal human character and pursuits of knowledge. Implicit theories include more every-day, common-sense approaches, providing the backdrop for self-reinforcing, multifaceted expressions of wisdom explained within explicit theories (Lynch & Kaufman, 2019). Some scholars suggest that wisdom involves balancing motivation, thought with interpersonal competencies (Baltes & Staudinger, 2000) and emotional aptitudes (Staudinger & Glück, 2011), with the belief that wise actions usually occur in the pursuit of a good life and common good.

Wisdom has been classified into numerous forms. Khan (2005) suggested conventional wisdom, those behaviors used to promote human well-being in both physical and societal contexts and emergent wisdom, adaptation and transformational thinking, actions, and behaviors. Staudinger (2019) argued for wisdom to be divided into general, insights into problems others face in their general lives, and personal wisdom, insight into one's own life. Sternberg (2019) divided wisdom into domain generality and depth, resulting in four types: deep domain-general, shallow domain-general, deep domain-specific, and shallow domain-specific. Zhang and colleagues (2022) discussed two types of wisdom, humane or in other words, psychological qualities such as virtue and wit gained through experience and practice with social sciences and humanities knowledge, whereas natural wisdom integrates the same qualities through natural science knowledge.

Wisdom definitions vary across place and time (Li et al., 2020), yet two common themes seen to emerge from many definitions of wisdom: (a) an emphasis on cognition, meaning, and affect; (b) a concern for humanity (Zhang et al., 2022). Baltes and Smith (1990) suggested an everyday definition of wisdom involving sound judgement and advice pertaining to life matters and a theoretical definition for the expert knowledge system for a domain, the fundamental life pragmatics. Staudinger and Glück (2011) maintained two paths of wisdom throughout history, a

distinction between the practical and philosophical, or the divine and human wisdom. Contemporary Eastern civilizations often describe wisdom with an emphasis on the integration of cognition, reflection, and affect developed through expertise and existential experiences while Western civilizations focused on synthetic and complex knowledge and cognition (Staudinger & Glück, 2011). Despite these differences, both Eastern and Western wisdom revere working for the common or greater good through the union of character and mind (Lei et al., 2020). This suggests that some facets of wisdom can be shared across cultures, such as the Golden Rule, while others are culturally specific (Zhang et al., 2022).

Within these themes, wisdom takes on two meanings, wise behaviors, and wise experiences. The polyculture theory of wisdom suggested that individual's understanding of wisdom is influenced by culture, personal worldviews, and values (Lei et al., 2020). Sternberg (1998) considered specific patterns in psychological qualities such as knowledge, characteristic thinking, and personality traits as part of wisdom. The integration of wise behaviors and the psychological qualities of virtue and wit developed via continuous practice and experience, intelligence and knowledge provide yet another meaning of the construct wisdom (Wang et al., 2019; Wang & Fu, 2017).

Sternberg (2019) categorized wisdom theories into four types: personal psychological experience or the function of an individual, property of a situation, an interaction of a person x situation, an action, or a combination. Wisdom of the person is the most common model, defining a set of characteristics that are necessary and lead to the possibility of a wise person and fall within three models—defining features, prototype, or exemplar (Smith & Medin, 1981). Wisdom as a property of the situation as argued by Grossman (2017) suggested inconsistent levels of wisdom within a person as seen in varying situations. The third view of wisdom includes the balance theory of wisdom, an interactional view of wisdom, which spotlights the interaction between sociocultural contexts and the person. The final view, wisdom as a property of action, expands on the interactionalist view. Here the focus shifts from the individual or group to their actions.

Berlin Wisdom Paradigm

The Berlin wisdom paradigm (Baltes & Smith, 1990; Baltes & Staudinger, 2000) explained wisdom as an expertise in the “fundamental pragmatics of life” (Baltes & Smith, p. 87), that is knowledge and judgement surrounding the human condition and the meaning of life. Fundamental life pragmatics include the understanding, analyzing, and managing meaningful yet ambiguous life matters (Baltes & Smith). Five criteria are included in the working framework of wisdom: (a) rich factual knowledge about the conditions of life; (b) rich procedural knowledge for judgment and advice regarding life matters; (c) life span contextualism, considering life problems in relation to a specific domain; (d) relativism of life, acknowledging values, goals, and priorities; and (e) uncertainty, recognizing and managing the unpredictability of life (Baltes & Smith). A wise person is an individual who carries wisdom-related knowledge while wisdom itself is an expert knowledge system. Elements of this knowledge are within every individual, while very few become experts.

The general theory of life span intelligence embeds the Berlin wisdom paradigm into the framework of development of the human mind. Baltes and Smith (1990) suggested the basic

information processing or mechanics of intelligence relates to the pragmatics or factual and procedural knowledge of intelligence. Wisdom is the growth within the pragmatics of intelligence. Here understanding the human condition, past and present, planning and managing tasks and goals, managing relationships, and gaining knowledge of oneself are all goals within the pragmatic domain (Baltes & Smith). Helping students gain insight into the fundamental pragmatics of life can contribute to talent development specifically within our SEM approach.

Balance Theory of Wisdom

Sternberg's (1998) balance theory applies wisdom to both practical and academic intelligences. Practical, or tactic, procedural knowledge that is action oriented, implicit, and supports individuals in achieving personally meaningful goals while academic intelligence is related to fluid intelligence, thinking and reasoning abstractly, which is explicitly taught. Sternberg (2001) suggested academic knowledge is the foundation to wisdom, but it also requires practical knowledge in the application of wisdom. In this case, wisdom is defined by balancing interests of self, others, and external contexts to achieve the common good. A wise person often provides advice or a solution they arrived at from an ambiguous problem, integrating interests for the best long- and short-term outcomes. Students use both practical and academic knowledge and can implement Sternberg's criteria for wise actions during planning, applying, producing, and evaluating their creative productive work in schools.

4W Model of Wisdom

Sternberg and Karami (2021) created the hierarchical 4W model of wisdom analogous to Kaufman and Beghetto's (2009) 4C model of creativity. The mini-w wisdom embodies wisdom in learning gained throughout the course of daily interactions. Little-w wisdom is applying what was learned in mini-w in everyday life and behaviors. It is during this stage when balancing the interests of others with their own and seeking common good comes into action, and this is our focus in our talent development approach discussed later. Pro-w wisdom is expert or professional level wisdom experienced during work in a domain or field. It does not generally apply to children; however Pro-w experts may mentor students throughout SEM projects. World-changing wisdom, changing the world for the better through leadership and action, happens at the Big-W wisdom level. Young people occasionally reach this level, such as Malala Yousafzai and Greta Thunberg, who showcase skills that should be sought after when identifying gifted individuals and behaviors (Sternberg & Karami). We believe that we can increase the likelihood of these types of behaviors by implementing talent development opportunities in various learning environments.

Wisdom is important for individuals of all ages, for without wisdom, one can use their gifts of intelligence and creativity for negative ends (Sternberg & Karami, 2021). In the 4W Model (Sternberg & Karami) suggests that if individuals are taught to seek the common good, to balance their own interests with those of others, in both the long and short-term, immersed with positive ethical values, they may be more willing to engage in a more positive purposeful realm. Similarly in Sternberg's (1998, 2019) balance theory of wisdom, to realize the common good one must enlist numerous personal attributes to produce wise thoughts and behaviors. Suggestions on how to teach, incorporate and encourage wisdom, using a strength-based, talent development approach in schools and classrooms will be explored later in this chapter.

Wisdom and Creativity

Sternberg (2021) explained that wisdom and creativity are both embedded in situational components. We have found support for Sternberg's balance theory (1998, 2001) in our work with students and children, as increasing their awareness of good work that needs to be done is often connected with developing their interests and exposing them to ideas, events, places, and problems that exist that they can help to solve (Reis & Peters, 2021). For example, we suggest that all students have opportunities for three types of enrichment that expose them to new ideas in which they may develop interests, train them in problem solving and methods for completing their work, and give them the opportunities to develop their interests in the pursuit of wise work. The Enrichment Triad Model, the pedagogical core of the Schoolwide Enrichment Model (SEM) identifies two categories of general enrichment (Types I and II), which we recommend for all students, and a third category (Type III), which is appropriate for some students who have the talents, focus, interest, and time to complete this type of work. These three types of enrichment include Type I Enrichment, consisting of general exploratory experiences that expose young people to new interests and potential areas of follow-up. Type II Enrichment includes training activities in the following six categories: Cognitive Thinking Skills, Character Development Skills, Learning How-To-Learn Skills, Using Advanced Research and Reference Skills, Written, Oral, and Communication Skills, Meta-Cognitive Technology Skills, and Executive Function Skills. Type III Enrichment is individual and small group investigations of real problems and interests; and it is this type of enrichment that we have seen the most innovative and creative examples of talent development.

An illustration of a Type III project will be helpful in understanding the connections between wisdom and creativity as applied to an enrichment approach in education. Xóchitl, an 8-year-old girl from Mexico, knew that in her low-income rural community, the only source for hot water was burning firewood from cut logs. The process would release fumes into the environment and contribute to deforestation and the cost of firewood was prohibitive. Thus, few low-income residents were able to take hot showers. This young Mexican girl developed a solar water heater in her small, high poverty village to enable residents to take hot baths or showers. Her device worked, but she refused to patent it so that she could give the idea away to others to enable them to make hot water inexpensively. In this case, we see a problem resulting in a creative solution and a child's understanding of what would be necessary to make a difference in her community, an illustration of the ways in which wisdom and creativity were embedded in her situational components.

Students who complete Type III Enrichment products compose creative and original writing, design science studies and build telescopes, conduct research about local history and act as junior historians, and pursue their interests in all areas of knowledge. One young middle school student worked with a local optometrist on grinding a lens for a telescope she had designed over a 9 month period. Completing a Type III project enables students to use their talents to pursue good work and to make a positive difference in their communities and often to solve local problems and engage in social action related to personal events in their lives. Finding wise solutions is a creative act, underlying the idea that creativity involved in wisdom. As creative thinking does not imply or need to be wise (Sternberg, 2003), a relationship between creativity and wisdom exists within the context of learning (Craft, 2006) and for us, within our approach to enriched learning situations in the SEM. We also agree with Craft who argued that

developing creativity without wisdom may be a disservice for students, their community, and society. As students cultivate their creativity in and out of the classroom, and they learn to understand how their behaviors, ideas, and products may affect themselves and others, in the long- and short-term, wisdom is developed and nurtured, as is their creative productivity. In this regard, our work in the SEM, especially with advanced projects and products focuses on developing work that makes a positive difference in the lives of others, solves local or regional or even international problems, or actually creates wise solutions.

Relationships Among Wisdom, Creativity, and Intelligence

Enabling individuals to understand their own abilities and to learn from or adapt to the environment or modify the environment to meet the needs involves intelligence, creativity, and wisdom. Of course, the relations among the constructs will depend on how the constructs are defined. For example, in Sternberg's (2003, 2019) WICS (wisdom-intelligence-creativity-synthesized) model, an interdependent approach of creative, analytic, practical, and wisdom-based intellectual approaches with contextual factors enables individuals to effectively solve problems (Sternberg et al., 2021). According to this theory, creativity produces innovative and valuable solutions; analytic and practical intelligences are used to determine which ideas to pursue, implement solutions, and showcase their value to others; wisdom to keep solutions positive and altruistic. The problem-solving approach used is determined based on the interaction of the individual's skills, attitudes, task, and context, which also fits in well with our school-based work.

Similarly, the idea of meta-intelligence, encompasses the relationship between control and coordination among creative, analytical, practical, and wisdom-based approaches to problem solving. Meta-intelligence provides individuals with the understanding and decision-making abilities to enlist intelligence, creative, and wise abilities in a particular purpose, problem, or situation (Sternberg et al., 2021). Relevant attitudes and skills influence the coordinating and various approaches used in problem solving, as well.

Although intelligence is an essential component of wisdom and creativity, high intelligence does not guarantee that wisdom or creativity will be developed in individuals. Renzulli's Three-Ring Conception of Giftedness (Renzulli, 1978; Reis & Renzulli, 2020) suggests that giftedness is also a dynamic construct that arises in certain individuals, at certain times, within certain contexts that we describe as gifted behaviors. *Gifted behaviors* under this conception occur when individuals apply their above-abilities, creativity, and task commitment to accomplish a specific goal, such as creating a product, solving a problem, putting on a performance, or providing a service. Students who participate in advanced work, such as building solar water heaters for their communities, demonstrate or show the potential for demonstrating gifted behaviors, and who use these gifts to pursue areas of interest or solve problems that can make the world a better place. We call this definition *creative-productive giftedness*, and it is popular with educators who instinctively understand that scores on IQ tests and other measures of cognitive ability do not, by themselves, identify students who have the potential to develop original work and products that are designed to have an impact and make a positive difference.

A Unified School-based Approach to Teaching Wisdom, Creativity, and Talent Development

The Schoolwide Enrichment Model (SEM) is our four decade effort to develop a school-based comprehensive system for infusing enrichment opportunities for all children while simultaneously developing gifted behaviors. Information about the model, research underlying it and implementation resources are available at <https://gifted.uconn.edu/schoolwide-enrichment-model/>. The SEM programming model has been implemented in thousands of schools and is supported by decades of research (Reis & Peters, 2021; Reis & Renzulli, 2003; Renzulli & Reis, 1997). This approach has been found to be a research-based viable option for serving high-ability students in a variety of educational settings that works well in different types of schools across the globe. Some schools programs use the SEM model as a whole school enrichment theme, some implement a talent pool approach, in which 15–20% of students in the school are identified as high ability or academically talented and in need of advanced enrichment opportunities. Others provide general enrichment to all students with opportunities for advanced level follow-up for students who show high levels of interest and motivation. Still others have pull-out programs with an itinerant teacher coming to the school for one or more days per week. All have one common goal, however, and that is development of students' unique talents and gifted behaviors. Each implementation of SEM takes into account the unique features of the individual learning community, provide various types of enrichment, and take into consideration how children's unique characteristics contribute to the process of talent development over time.

A major purpose of the SEM has been to teach children to use their talents to make their environments and world a better place (Reis & Renzulli, 2022). The extensive body of research that exists and has helped us advance our approach to the development of creative productive giftedness (Reis & Peters, 2021) includes longitudinal research on students who participated in planned and purposeful SEM programs. These students reported important influences in higher education options, and, in later life career choices. These choices reflect understanding their talents and interests better as well as seeking additional creative and productive experiences and challenges both personally and within their career paths (Reis & Peters).

When educators implement our SEM approach in schools, the potential exists for students to better understand their individual abilities, interests, learning styles, and executive function skills; explore possible involvement in existing or developing interest areas; and experience firsthand investigative or creative opportunities in areas that solve problems or encourage young people to use their talents to make the world a better place, ultimately contributing to the development of wisdom in this group (Renzulli & Reis, 2014). The SEM is based on our foundational premise: *Schools Should Be Places for Talent Development*. Our talent development approach moves beyond various iterations of standards-based learning, no matter how advanced those standards and that curriculum may be, as the focus is quite different—the development of creative productivity in students.

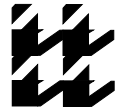
Wisdom, creativity, and intelligence, depending upon how they are conceived and defined, can be developed as students involved in SEM programs and pedagogy learn to use their talents to promote positive social change. Our educational focus provides opportunities, resources, and encouragement to use the strength-based teaching strategies to enable students to develop a socially constructive product or service to others that brings about positive change

locally and in larger audiences (Reis & Renzulli, 2022). SEM programs and classrooms can be designed to promote creative-productive giftedness—they emphasize the use and application of abilities and creative productivity in an integrated, inductive, and real-problem-oriented manner to create a tangible product, performance, presentation, or social oriented service project. In our work, creative-productive giftedness is expressed when students choose to work on problems and areas of study that are relevant to them in the hope that it will have an impact on one or more desired audiences. Whenever possible, given the age of the student, we encourage their work to be scaled up to solve important and personally meaningful problems and make a difference. For decades, we have argued that the creative and productive people of the world, the producers rather than consumers of knowledge, are those who have transformed our world, and in this way, we advocate the use of planned enrichment experiences to contribute to and help develop wisdom in young people.

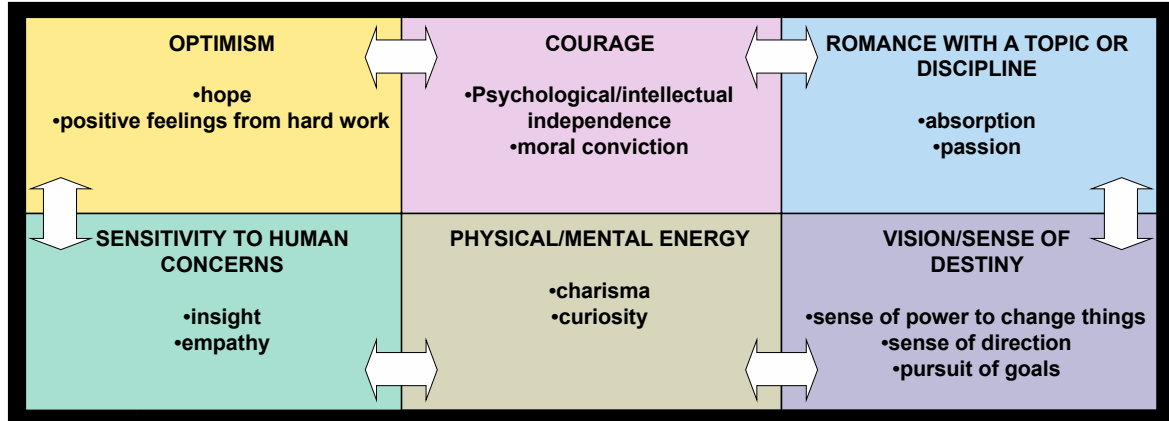
In addition to cognitive contributors to the development of high performance, a number of other factors referred to by Renzulli and others as “intelligences outside the normal curve” (Renzulli, 2005; Renzulli et al., 2011; Renzulli & de Souza Fleith, 2012) have been found to play a role in the present and future accomplishments of highly effective young people and adults. These enhancements, over time, to our conception of giftedness focus on two clusters of co-cognitive traits that deal with characteristics related to using one’s talents to create social capital by doing good works and applying executive function skills to the development of action-oriented products. These traits are not as easily measured as cognitive abilities, but they are important contributors to creative productivity and ultimately, to wisdom. These traits interact with ability, creativity, and task commitment leading to socially constructive gifted behaviors. These “co-cognitive factors” include *optimism, courage, romance with a topic or discipline, sensitivity to human concerns, physical/mental energy, and vision/sense of destiny*. This work also described organizational and personal traits that successful, altruistic leaders possess and that are desirable to develop in young people. These traits are clustered into five factors: *action orientation, social interactions, altruistic leadership, realistic self-assessment, and awareness of the needs of others*. This previous work also argued that the development of wisdom and satisfying lifework and lifestyle must be accompanied by the concerns and search for diversity, balance, harmony, and proportion in the choices and decisions made by talented young people, as illustrated in Figure 1.

The goal of our recent work has been to create opportunities for students to foster socially constructive virtues, and we could also argue, wisdom, as well. We agree with Sternberg that it is time to change schools and schooling to incorporate more opportunities for students to be exposed to enrichment that enables them to develop their talents, creativity, and wisdom to address the many challenges of our world today. And our SEM is one step in that direction.

Figure 1
Graphic representation of Operation Houndstooth Theory



OPERATION HOUNDSTOOTH



WISDOM
SATISFYING LIFESTYLE
THE PURSUIT OF HAPPINESS

diversity 差异性
balance 平衡
harmony 和諧
proportion 比例

© Operation Houndstooth
 The National Research Center on the Gifted and Talented
 University of Connecticut
 Joseph S. Renzulli, Rachel E. Sytsma, & Kristin B. Berman
 November, 2000 www.gifted.uconn.edu

References

- Baltes, P. B., & Smith, J. (1990). Toward a psychology of wisdom and its ontogenesis. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development* (pp. 87–120). Cambridge University Press. <https://doi.org/10.1017/CBO9781139173704.006>
- Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist*, 55(1), 122–136. <https://doi.org/10.1037//0003-066X.55.1.122>
- Beghetto, R. A., & Kaufman, J. C. (2007). Toward a broader conception of creativity: A case for “mini-c” creativity. *American Psychological Association*, 1(2), 73–79. <https://doi.org/10.1037/1931-3896.1.2.73>
- Craft, A. (2006). Fostering creativity with wisdom. *Cambridge Journal of Education*, 36(3), 337–350. <https://doi.org/10.1080/03057640600865835>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.
- Gardner, H. (1995). Reflections on multiple intelligences: Myths and messages. *Phi Delta Kappan*, 77(3), 200–209. <https://www.jstor.org/stable/20405529>
- Gardner, H. (2006). *Multiple intelligences: New horizons*. Basic Books.
- Grossman, I. (2017). Wisdom in context. *Perspectives on Psychological Science*, 12(2), 233–257. <https://doi.org/10.1177/1745691616672066>
- Kaufman, J. C., & Beghetto, R. A. (2009). Beyond big and little: The four c model of creativity. *Review of General Psychology*, 13(1), 1–12. <https://doi.org/10.1037/a0013688>
- Kaufman, J. C., & Beghetto, R. A. (2013). In praise of Clark Kent: Creative metacognition and the importance of teaching kids when (not) to be creative. *Roeper Review*, 35(3), 155–165. <https://doi.org/10.1080/02783193.2013.799413>
- Khan, A. R. (2005). A way to wisdom: The next step. *ReVision*, 28(1), 42–45. <https://doi.org/10.3200/REVN.28.1.42-45>
- Li, K., Wang, F., Wang, Z., Shi, J., & Xiong, M. (2020). A polycultural theory of wisdom based on Habermas’s worldview. *Culture & Psychology*, 26(2), 253–273. <https://doi.org/10.1177/1354067X19877915>
- Lynch, S. F., & Kaufman, J. C. (2019). Creativity, intelligence, and wisdom: Could versus should. In R. J. Sternberg & J. Glück (Eds.), *The Cambridge handbook of wisdom* (pp. 455–464). Cambridge University Press. <https://doi.org/10.1017/9781108568272.021>
- Reis, S. M., & Peters, P. M. (2021). Research on the Schoolwide Enrichment Model: Four decades of insights, innovation, and evolution. *Gifted Education International*, 37(2), 109–141. <https://doi.org/10.1177/0261429420963987>
- Reis, S. M., & Renzulli, J. S. (2003). Research related to the Schoolwide Enrichment Triad Model. *Gifted Education International*, 18(1), 15–39. <https://doi.org/10.1177/026142940301800104>
- Reis, S. M., & Renzulli, J. S. (2020). *Intellectual giftedness*. In R. J. Sternberg & S. B. Kaufman (Eds.), *Cambridge handbook of intelligence* (2nd ed., 235–252). Cambridge University Press.
- Reis, S. M., & Renzulli, J. S. (2022). Transformational giftedness: Using SEM pedagogy to create future leaders and change agents dedicated to service, social responsibility and using their talents to improve the planet. In R. J. Sternberg, D. Ambrose, & S. Karami (Eds.), *The Palgrave handbook of transformational giftedness* (pp. 313–333). Palgrave Macmillan.

- Renzulli, J. S. (1978). What makes giftedness? Re-examining a definition. *Phi Delta Kappan*, 60(3), 180–184, 261. <https://www.jstor.org/stable/20299281>
- Renzulli, J. S. (2005). The Three-Ring Conception of Giftedness: A developmental model for promoting creative productivity. In R. J. Sternberg and J. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 217–245). Cambridge University Press.
- Renzulli, J. S., & de Souza Fleith, D. (2012). Intelligences outside the normal curve: Co-cognitive factors that contribute to the creation of social capital and leadership skills in young people. In A. Ziegler, C. Fischer, H. Stoeger, & M. Reutlinger (Eds.), *Gifted education as a life-long challenge: Essays in honour of Franz Mönks* (pp. 157–177). LIT-Verlag.
- Renzulli, J. S., & Reis, S. M. (1985). *The Schoolwide Enrichment Model: A comprehensive plan for educational excellence*. Creative Learning Press.
- Renzulli, J. S., & Reis, S. M. (1997). *The Schoolwide Enrichment Model: A how-to guide for educational excellence* (2nd ed.). Creative Learning Press.
- Renzulli, J. S., & Reis, S. M. (2014). *The Schoolwide Enrichment Model: A how-to guide for educational excellence* (3rd ed.). Prufrock Press.
- Runco, M. A. (1996). Personal creativity: Definition and developmental issues. *New Directions for Child Development*, 72, 3–20. <https://doi.org/10.1002/cd.23219967203>
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92–96. <https://doi.org/10.1080/10400419.2012.650092>
- Smith, E. E., & Medin, D. L. (1981). *Categories and concepts*. Harvard University Press. <https://doi.org/10.4159/harvard.9780674866270>
- Spearman, C. (1927). *The abilities of man*. Macmillan.
- Staudinger, U. M. (2019). The distinction between personal and general wisdom: How far have we come? In R. J. Sternberg & J. Glück (Eds.), *The Cambridge handbook of wisdom* (pp. 182–201). Cambridge University Press. <https://doi.org/10.1017/9781108568272.010>
- Staudinger, U. M., & Glück, J. (2011). Intelligence and wisdom. In R. J. Sternberg & S. B. Kaufman (Eds.), *The Cambridge handbook of intelligence* (pp. 827–846). Cambridge University Press. <https://doi.org/10.1017/CBO9780511977244.041>
- Sternberg, R. J. (1997). *Successful intelligence*. Plume.
- Sternberg, R. J. (1998). A balance theory of wisdom. *Review of General Psychology*, 2(4), 347–365. <https://doi.org/10.1037/1089-2680.2.4.347>
- Sternberg, R. J. (2001). Why schools should teach for wisdom: The balance theory of wisdom in educational settings. *Educational Psychologist*, 36(4), 227–245. https://doi.org/10.1207/S15326985EP3604_2
- Sternberg, R. J. (2003). Wisdom and education. *Gifted Education International*, 17, 233–248. <https://doi.org/10.1177/026142940301700304>
- Sternberg, R. J. (2007). Intelligence as a person-situation interaction. In Y. Shoda, D. Cervone, & G. Downey (Eds.), *Persons in context: Building a science of the individual* (pp. 238–260). The Guilford Press.
- Sternberg, R. J. (2019). Four ways to conceive of wisdom: Wisdom as a function of a person, situation, person/situation interaction, or action. *Journal of Value Inquiry*, 53, 479–485. <https://doi.org/10.1007/s10790-019-09708-2>
- Sternberg, R. J. (2020). Systems approaches to intelligence. In R. J. Sternberg (Ed.), *Human intelligence: An introduction* (pp. 202–221). Cambridge University Press.

- Sternberg, R. J. (2021). Adaptive intelligence: Intelligence is not a personal trait but rather a person x task x situation interaction. *Journal of Intelligence*, 9(58), 1–19. <https://doi.org/10.3390/jintelligence9040058>
- Sternberg, R. J., Glaveanu, V., Karami, S., Kaufman, J. C., Phillipson, S. N., & Preiss, D. D. (2021). Meta-intelligence: Understanding, control, and interactivity between creative, analytical, practical, and wisdom-based approaches in problem solving. *Journal of Intelligence*, 9(19), 1–22. <https://doi.org/10.3390/jintelligence9020019>
- Sternberg, R. J., & Karami, S. (2021). A 4W model of wisdom and giftedness in wisdom. *Roeper Review*, 43(3), 153–160. <https://doi.org/10.1080/02783193.2021.1923596>
- Vernon, D., Hocking, I., & Tyler, T. C. (2016). An evidence-based review of creative problem solving tools: A practitioner’s resource. *Human Resource Development Review*, 15(2), 230–259. <https://doi.org/10.1177/15344843166641512>
- Wang, F. Y., & Fu, X. R. (2017, Oct. 30). Wisdom: The integrated psychological quality of virtue and talent. *Chinese Social Sciences Today*.
- Wang, F. Y., Yan, L. S., & Zheng, H. (2019). *A new look of educational psychology* (5th ed.) Jinan University Press.
- Weisberg, R. W. (2015). On the usefulness of “value” in the definition of creativity. *Creativity Research Journal*, 27(2), 111–124. <https://doi.org/10.1080/10400419.2015.1030320>
- Weisberg, R. W. (2018). Response to Harrington on the definition of creativity. *Creativity Research Journal*, 30(4), 461–465. <https://doi.org/10.1080/10400419.2018.1537386>
- Weisberg, R., Pichot, N., Bonetto, E., Pavani, J.- B., Arciszewski, T., & Bonnardel, N. (2021). From explicit to implicit theories of creativity and back: The relevance of naive criteria in defining creativity. *Journal of Creative Behavior*, 55(3), 839–856. <https://doi.org/10.1002/jocb.492>
- Zhang, K., Shi, J., Wang, F., & Ferrari, M. (2022). Wisdom: Meaning, structure, types, arguments, and future concerns. *Current Psychology*. <https://doi.org/10.1007/s12144-022-02816-6>