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LESSONS LEARNED FROM WORKING WITH GIFTED AND TALENTED CHILDREN AND YOUTH

Steven I. Pfeiffer¹

Florida State University | USA

Abstract

This article discusses three lessons that stand out as particularly poignant in the author's career working with gifted and talented students. The author recounts personal and professional experiences that influenced his thinking about the gifted. The three lessons are that identifying high-ability students is not an easy, the development of talent requires much more than ability, and success requires both head strengths and heart strengths.

Keywords: Gifted, talented, heart strengths, soft skills.

¹Steven I. Pfeiffer is a professor at Florida State University (FSU), where he served for over ten years as Director of Clinical Training. Prior to his tenure at FSU, Professor Pfeiffer was a Professor at Duke University, where he served as Executive Director of Duke's internationally renowned gifted program, Talent Identification Program (TIP). Professor Pfeiffer recently served as Editor-in-Chief of the *APA Handbook on Giftedness and Talent*, published by APA Books. He is author of a popular book on the gifted written for practitioners, *Serving the Gifted: Evidence-Based Clinical and Psychoeducational Practice*, published in 2012 by Routledge. He is lead author of a widely used scale to identify multiple types of giftedness, the *Gifted Rating Scales*, published by Pearson Assessment. Professor Pfeiffer is a licensed and board-certified psychologist; he maintains a private consulting practice and is a popular speaker and workshop leader in the U.S.A. and internationally. His website is: <https://steven-pfeiffer-psychology.com>

This article is a personal look at three lessons that I have learned from my work with high-ability students over the course of my career. Some of my ideas come from my affinity with the poignant lessons offered in the popular bestseller, *All I Really Need to Know I Learned in Kindergarten* (Fulghum, 1988). Fulghum suggested that some of life's most important lessons are learned when we are very young! A few of the important lessons that Fulghum mentions include "share everything," "play fair," "clean up your own mess," and "be aware of wonder" (Fulghum, 1988). These lessons have been important in my work with gifted children and youth. My views have also been influenced by experiences, a few of which I share in this article.

As a graduate student at the University of North Carolina, I became interested in gifted students when I registered for a course taught by Professor James Gallagher. At the time, Dr. Gallagher was already an important figure in the gifted field. His impassioned advocacy for the unmet needs of the gifted (Gallagher, 2002a, b, 2007, 2008) introduced me to this unique population.

Another early influence was Professor Michael Wallach. At the time, Dr. Wallach was a professor at Duke University. I was familiar with his work on modes of thinking in young children (Wallach and Kogan, 1965) and creativity (Wallach, 1970). At the time, Dr. Wallach was completing a paper, which shortly appeared in *American Scientist*, on the limitations of tests informing us about talent (Wallach, 1976). The views that subsequently appeared in this article resonated with my own thinking, values, and beliefs. I shared Dr. Wallach's reservations that IQ scores, although a good proxy for cognitive abilities required for successful school performance, did not fully explain intellectual ability or eminence in any field.

Professors Gallagher and Wallach together helped formulate my dissertation research. My research examined cognitive style processes that explained why certain students were better than others in creative writing, when controlling for IQ. My dissertation research investigated children's preferred cognitive or thinking styles – which are not abilities but rather preferred ways of expressing one's intellectual abilities (Sternberg, 1997; Sternberg and Grigorenko, 1997). I found that IQ did not explain everything in terms of which students were the most proficient creative writers. Cognitive style processes such as intellectual risk taking, which is not a task found on IQ tests but which many consider a component of the creative process (e.g., Kaufman, 2009; Kozbelt et al., 2010), predicted which students were the most capable creative writers.

Back in graduate school, and today, I have remained fascinated with understanding factors – factors within the child, and factors within the home, family, school, and even the community, that facilitate (or impede) the development of creativity and eminence.

Three personal events helped shape my interest in the gifted. As a youth, I thought about individual differences in sports. I was a pretty fast runner, but otherwise not a kid with a ton of natural athletic ability. I loved sports and wondered how important innate athletic ability was, compared with effort, and practice and persistence.

A second event, or actually a life experience, occurred many years later, in my role as a parent. My wife and I have three children, all now adults. In fact, two of our daughters have their own children! Our youngest child, a girl, was identified at the age of five as having precocious athletic ability – akin to the early identification of intellectual precocity. In other words, possibly a gifted athlete.

By the age of 10, our daughter had been identified by the USA Women's Soccer Olympic Development Program, known as the ODP in the United States (Vincent and Glamser, 2006). Her elite youth career began as player on the ODP "under 13 year old" soccer team. A few years later, she was selected to the ODP regional team, which is the feeder for the USA national soccer team. She was a girl with a whole lot of athletic ability as a young child.

As a parent with already considerable professional experience working with academically and intellectually gifted kids, it was an eye opener to be exposed to the world of elite youth athletics. I learned a great deal while shepherding my daughter through the world of competitive youth sports. My experience broadened my view on talent development in the world of competitive sports (Cote et al., 2003; Wolfenden and Holt, 2005). My experience as a parent of an elite athlete expanded my appreciation for what is required to develop expertise at the highest levels of performance (Durand-Bush and Salmela, 2002; Ericsson, 2005).

This experience as a parent of a young, gifted athlete introduced me, first hand, to the importance of deliberate practice, coaching, and how competition can be both helpful, but in some instances also devastatingly detrimental, to the motivation and passion of a young child with high-athletic ability. Much of what I learned while on the sidelines watching my daughter

play and be coached influenced my thinking about the critical role that hard work, motivation and persistence play in talent development (Pfeiffer, 2013). Much of what I learned through my involvement with elite youth athletics influenced my views of gifted identification. And much of what I observed on the sidelines influenced my thinking about the importance of passion to be successful – not only in soccer, but in any field.

The third influential event is the most recent. In 1998, I had the good fortune of serving as the executive director of the Duke University Talent Identification Program (TIP). The Duke TIP gifted program annually conducts a multi-state talent search to identify high-ability middle- and high-school students (Putallaz et al., 2005). The program also offers a summer residential academy for high-ability pre-college-aged students on the campus of Duke.

During my tenure as Executive Director at Duke TIP, I got to meet many hundreds of extraordinarily bright middle- and high school students. I served as unofficial 'headmaster' of the summer residential program. I interacted with these extraordinarily bright students in the classroom and in the cafeteria. I spent considerable time interacting with these students during social and recreational activities, in study halls and in labs (Pfeiffer, 2009; Pleasants et al., 2004).

When problems arose on campus, I was often the "go-to person" who intervened. I met many TIP students who got themselves into any number of academic or social difficulties or crises. I learned a great deal from interacting with these very intellectually bright students who found themselves in trouble, which influenced my thinking about how even very bright kids can sometimes mess up in spite of their uncanny intellectual ability.

Now at Florida State University (FSU), I helped develop and co-direct a summer academy for high-ability Florida high-school students. The summer academy is a component of the larger, proposed Florida Governor's School for Science and Space Technology. The Florida Governor's School is envisioned to become a residential science, technology, engineering, and mathematics (STEM)-focused academy for Florida's brightest high-school juniors and seniors, modeled after the handful of existing statesupported residential academies (Pfeiffer et al., 2010).

The Florida gifted summer academy, a pilot project, has been in existence for three years. Working with a team of faculty from Embry-Riddle Aero-

nautical University, Florida Institute of Technology, FSU, and the Florida Center for Advanced Aero-Propulsion, we created a summer program for high-ability students in conjunction with Kennedy Space Center and NASA. The blueprint for the summer academy and for the proposed Florida Governor's School is based on my experience at Duke TIP and from visits to some of the leading state-supported residential academies (i.e., North Carolina School of Science and Mathematics and the Illinois Mathematics and Science Academy).

Now I would like to discuss three lessons learned over the course of my career. I think you will see how my personal experiences influenced my views on these lessons learned. I hope that you find these lessons relevant to your own work with bright children and youth. These lessons seem particularly relevant to today's youth. The lessons are (1) identifying high-ability students is not an easy business; (2) the development of talent requires much more than ability; and (3) success outside of the classroom, success on the job, and success in life requires both head strengths and heart strengths.

Identifying high-ability students is not an easy business

For over 100 years, high-ability students have been identified by scores obtained on IQ tests (Nisbett, 2009; Pfeiffer, 2002, 2013, 2015). In a recently completed national survey (McClain and Pfeiffer, 2012), we found that the majority of states in the USA still rely primarily, in some instances almost exclusively, on an IQ test score to define and determine whether a student is gifted. Many states still set a specific cut-off score, such as an IQ of 120 or 130.

The problem with this approach to gifted identification is that it is too simplistic and is based on the myth that "being gifted" is actually something real, that a youngster is either gifted or not gifted. The reality is that giftedness is a socially constructed concept, not anything real. "Giftedness is not a fact of nature, but, instead, a social construction" (Borland, 2009, p. 237). The concepts of normal, subnormal, and supernormal (or gifted) are human inventions, not discoveries of nature. Although we treat giftedness as real, something that children either have or do not have, it is nothing more than a social construction. It is an invented way of categorizing chil-

dren (Borland, 2005; Pfeiffer, 2002, 2012, 2015). It is analogous to the idea that some youngsters are gifted young athletes and all others are not, and that the distinction between the two, between gifted and not-gifted athletes, reflects something that is real. Of course, this is not true.

Historically, each society has used the concept of giftedness as a label to explain and recognize those individuals who perform exceptionally well in culturally valued domains. Cultural anthropologists remind us that what constitutes giftedness varies by society. It is not difficult to envision that a person considered gifted in one society, for example an innovative computer software designer from Silicon Valley, might not be gifted in another society (Pfeiffer, 2002, 2008, 2015).

Borland (2005, pp. 7–8) argues that there is no scientific basis or justification for dichotomizing students into two distinct, mutually exclusive groups, the gifted and the non-gifted. Borland eloquently writes:

...we glibly talk about identifying the gifted; about so-and-so being truly gifted; about the mildly, moderately, and even severely (gifted). In other words, we treat giftedness as a thing, a reality, something (students) either have or do not have... giftedness in the schools is something we confer, not something we discover.

A second myth, that giftedness is the same as high IQ, is another popular belief. This myth contends that "being gifted" means that you have a high IQ. Very few experts in the gifted field presently embrace this view of giftedness as high IQ (Borland, 2009), but many educators and parents still hold to the belief that high IQ equals giftedness.

Borland, a self-proclaimed critic of the concept of the gifted child, contends that the belief that giftedness equals high IQ is one of the reasons for the "chronic, severe underrepresentation of lower-socioeconomic status children and children from racial, ethnic, and linguistic minorities in gifted programs. using IQ as a determiner of giftedness or as a gatekeeper for gifted programs is a seriously misguided practice" (Borland, 2009; p. 237). Although I do not agree with Borland that the IQ is without any value in conceptualizing academic giftedness, he does raise an important cautionary note on the dangers and potential misuse of the IQ. Borland writes:

The quantitative nature of IQs seems to beguile certain people into taking them far too seriously. It is not uncommon for educators to establish inflexible IQ cutoff scores for admission to gifted programs. This can result in

absurdities such as admitting (and, thus, labeling as "gifted") a student with a score of, say, 130 on an IQ test and not admitting (and, thus, labeling as "not gifted") a student with a score of 129. — (Borland, 2009; p. 237)

It would be equally naive and misguided to identify and select children for any competitive sports program based on one or even two measures of athletic ability.

A third myth – once gifted, always gifted – is a "close relative" to the myths that giftedness is something real and giftedness is the same as high IQ. If one believes that giftedness is something real, and if one believes that giftedness is the same as high IQ, then it makes sense to also believe that giftedness is something permanent and is an integral part of the person throughout their life.

This third myth is the rationale as to why students identified with a high IQ score and classified as gifted in the early grades, as young as preschool or kindergarten, are typically not required to demonstrate subsequent evidence that they are still gifted in the later grades. A gifted classification in the USA is almost universally an open-ended ticket for a student to receive special gifted programs or services throughout their school career. I can think of no other classification of special-needs student in the USA (e.g., learning disabled, those with attention-deficit hyperactivity disorder, severe emotional disturbance [SED]) or special privilege (selection to the US ODP soccer pool, varsity athletic team, debate club, orchestra, student newspaper) bestowed upon a student that carries such advantage and unrestricted benefits.

There are federal and state statutes that require students classified with a special education exceptionality to be re-evaluated (Individuals with Disabilities Education Improvement Act, 2004). And, of course, any student who qualifies and is chosen to be a member of a select athletic team must continue to demonstrate evidence (through his or her performance, motivation, attitude, etc.) that she qualifies to remain a member of that select group. Membership in almost any other program is rarely guaranteed throughout a student's entire school career. Only the gifted enjoy this uniquely special privilege. This is based on the prevailing myth that once a person is gifted, they are always gifted. The logic of this argument is the following: there is no need to re-evaluate the student who is deemed gifted if a person is always gifted. And there is little reason to screen for "missed" stu-

dents who are not identified in the earlier grades as gifted because one is either gifted or not gifted at birth.

Many educators continue to believe that ability is predetermined, set, and unchanging. The great preponderance of scientific evidence, however, indicates that giftedness is not a state of being; it is not fixed or undeviating (Bronfenbrenner and Ceci, 1994; Ceci and Williams, 1997; Neisser, 1996). IQ accounts for a substantial, but not nearly the majority, amount of the reliable variance in a student's academic performance or real-world success (Nisbett, 2009). Giftedness is a potentially useful way to categorize a group of students who display exceptional ability or promise; exceptional ability or promise in the classroom as well as on the playing field.

In my humble opinion, the reality is that giftedness is not something real. There is no difference between an IQ score of 128 and 130. Of course, if we were to compare two students whose IQ differences are substantial, say between 110 and 130 or between 120 and 146, we appreciate real differences in their cognitive abilities and capacity to learn – as we would expect. But this does not imply that there exists a group of children who are gifted at birth, demarcated from non-gifted children by some specific IQ score.

My point is that identifying high-ability students or, if you prefer, "gifted students," is very difficult and can never be fully defended based on even fancy algorithms (Pfeiffer, 2015). It is not as easy as one might think. Do not get me wrong, I believe that IQ tests are useful and provide us with valuable information. I just do not view giftedness as the same as high IQ. The truth of the matter is, IQ scores account for perhaps 25% of the variance in student achievement. That is substantial. But factors other than what we gather from an IQ test play a huge role in contributing to outstanding accomplishments in the classroom.

Outstanding academic accomplishments are always multi-determined; just as are athletic accomplishments. Test scores matter, but no single score can ever tell the whole story about whether a student is gifted.

This, then, gets to the heart of the issue: what is "gifted"? Is giftedness an immutable attribute of the person? Or is giftedness a label for the relative standing of a person in some culturally valued domain? Can a young child be identified as gifted in kindergarten but not be gifted in the later years? Many believe that a person is either gifted or not gifted. They believe, "Once gifted, always gifted." I do not embrace this view.

There is considerable evidence that IQ scores can change, and in some instances change dramatically. And there is considerable evidence that high IQ is only one predictor of academic success (and success in life). A high IQ in the early years is a very good predictor of later accomplishments in the classroom. But there are other predictors of later accomplishments.

When we created our application for the Florida Governor's School we considered a host of selection factors. We looked at IQ, for sure. However, we also looked at applicants' academic performance in the classroom. We looked at their classroom motivation, as rated by their teachers. We evaluated their passion for studying science and math, by critiquing their essays. All of these factors constitute giftedness or potential giftedness in science.

I conceptualize giftedness, at least by middle school or high school, in the following way. A gifted student demonstrates uncanny high potential and a thirst to excel in one or more specific culturally valued academic domains. And a gifted student is likely to benefit from special educational programs, especially if they align with their unique profile of abilities and interests. We, of course, hope that our schools have the resources to include as many students of uncanny high potential and thirst to excel as possible, so that ultimately, from those who we select and from those who participate in gifted programs, a large percentage go on to accomplish extraordinary things (Pfeiffer, 2008, 2015).

The development of talent requires more than ability

The second lesson that I learned is that the development of talent requires more than ability. Let me emphasize that we can at best only predict the likelihood of later outstanding accomplishment. Many students identified as gifted when young grow up and, as adults, demonstrate no special or extraordinary talent. And many students not recognized as having any special gifts when young are what we call "late bloomers," and astound us with extraordinary accomplishments as adults. Many factors, in addition to intelligence, contribute to extraordinary accomplishments in later life. The notion of giftedness as developing expertise, proposed by Sternberg, fits well with this view (Sternberg, 1996, 1998, 2000).

Let me share a few of these important factors. Hard work and practice

are important non-intellectual factors that make a real difference. A colleague at Florida State University, Anders Ericsson, is recognized for his work in countering the belief that expert performance is based on innate abilities. Ericsson has demonstrated that expert performance is predominantly mediated by acquiring complex skills (Ericsson, 1996, 2005; Ericsson et al., 1993, 2005). Skills become honed by what he terms deliberate practice.

I do not agree with Ericsson's de-emphasis of the role of ability in developing expertise – a view reinforced by both personal and professional experiences. Nevertheless, Ericsson's work highlights the critical role that hard work and practice play in the development of talent. The importance of deliberate practice is consistent with what many educators emphasize in encouraging all students, including high-ability students, to work very, very hard if they hope to reach their full potential (Dweck, 2006). The Chinese have a wonderful term for hard work, "chi ku," translated as "eating bitterness."

High-ability students need to expect to spend sufficient – really abundant – time working very hard if they hope to be successful.

In addition to hard work and deliberate practice, learning to delay gratification is an important non-intellectual factor that contributes to success. Almost 40 years ago, Mischel (1974) conducted a study with a group of preschoolers. Mischel invited preschoolers to keep themselves busy in the classroom while an adult left them alone. The preschoolers were told that if they got bored, they could ring a bell and the adult would return. They had the option of selecting a small treat available in the play room as they waited for the return of the adult. But if they could wait without taking a small treat and hold off until they rang the bell to signal the adult's return, then they would be given a much more attractive treat. The point of this ingenious study was that the longer the child waited, the greater his or her ability to delay gratification (Mischel, 1974). Delay of gratification is not a component of intelligence. But it certainly is important in academic success.

Mischel followed these preschoolers over two decades. Ten years after they first participated in the study, children who waited the longest before taking any goodies were rated by their parents as better able to concentrate, better planners, more successful in tolerating frustrating events, and more mature in dealing with stress. In high school, the toddlers who were better able to resist temptation had higher SAT verbal and math test scores (Mischel et al., 1989).

It is almost impossible for any student to master challenging academic work if he or she does not have a healthy dose of frustration tolerance. IQ can only get you so far. Hard work, discipline, persistence, not giving up – these are the ingredients that are critical for academic and real-world success.

Success requires both head strengths and heart strengths

The final lesson is that success, especially success outside of the classroom, requires both head strengths and heart strengths (Park and Peterson, 2010; Pfeiffer, 2016). I have kept in touch with a great many former students over the years. I have also stayed in touch with many former clients from my clinical practice who were identified as gifted when they were young. I have followed with great interest these youngsters' career paths and personal life trajectories.

Some of these individuals have struggled as adults. Some did not finish college or dropped out of pharmacy, law, or architecture school. Some were admitted to but did not finish medical school. Some have struggled with feelings of loneliness, depression, alcoholism, or drug abuse. Some even acknowledged thoughts of suicide.

What I have learned from observing high-ability children grow up is that not all of them successfully navigate the difficult waters of adolescence into adult life (Pfeiffer, 2003). Not all of them turn out to be successful adults. High-ability children all possess high levels of intelligence, and many also possess an abundance of creativity (Kaufman and Sternberg, 2010); what I call head strengths. This is what the gifted field typically considers the gifted student.

What some of these high-ability students lack in equal measure are strengths of the heart. Strengths of the heart are what some call character strengths (Peterson and Seligman, 2004). Strengths of the heart are not emphasized in the great majority of today's classrooms. They are not on any priority list of topics funded by the National Science Foundation.

The recent national education reform initiatives are the federal engines that drive what ultimately happens in USA's classrooms. And the emphasis is clearly on academic outcomes, which is fine and makes perfectly good

sense. However, recent educational reform initiatives focus exclusively on strengths of the head and these initiatives do not give even scant attention to strengths of the heart. I have found this to be the case, as well, in my international travels. The focus on head strengths is a global phenomenon and not just unique to the USA. Heart strengths are still important in kindergarten. Heart strengths such as kindness, teamwork, forgiveness, gratitude, and fairness still get ample attention in kindergarten. But in the later grades, we are not focusing on these heart strengths nearly as much as we do on the head strengths.

Part of the reason is that there is only so much time in the school day. And if we want our students to master important academic material, if we want our students to compete globally in the science, math, and technical fields, then we need to focus and spend more time, not less, on academics.

Another reason why we do not emphasize heart strengths is that we assume that heart strengths should be learned in the home, in church, or at Sunday school. Some children, however, including some high-ability students with extraordinary head strengths, do not master heart strengths. And this compromises their success in the real world. Highability students who are not successful in life because of undeveloped heart strengths are a wasted resource.

I have found six heart strengths to be particularly important; heart strengths that we might want to pay more attention to as we continue to focus on head strengths. The first heart strength is humility. By this I mean high-ability students who do not seek the spotlight, who do not regard themselves with inflated importance, as more special than everyone else. This is a particularly challenging strength of the heart for many gifted students who have been repeatedly told by others how very smart and special they are. The opposite of humility is arrogance, conceit, or self-importance, a distasteful characteristic often attributed to gifted children. Follow-up interviews with NASA scientists at our summer academy consistently indicated that students with healthy dosages of humility are viewed as most likely to succeed.

The second heart strength that is predictive of life success is persistence. Some children with an awful lot of head strength have a tendency to not finish what they start, to give up when confronted with difficult obstacles. I have observed this as a parent on the sidelines watching young elite soccer

players practice. Some youngsters with seemingly limitless athletic ability lacked a commensurate level of persistence. It was apparent to their coaches that they would never make the most of their ability. I also observed some players with considerably less athletic ability who displayed uncanny persistence and drive, players who never seemed to tire or give up (they also were highly 'coachable' and seemed to absorb, like a sponge, coaching instruction). They would frequently outshine players with considerably more raw athletic ability.

A study by Angela Duckworth and Martin Seligman (2005) highlights this heart strength. They found that measures of self-discipline, clearly a non-intellectual ability, predict grades on report cards, SAT scores, and even attendance. Perhaps most startling, measures of self-discipline did a better job of predicting school success than IQ scores – the hallmark measure of a head strength.

A third heart strength is kindness. Many students demonstrate acts of kindness and compassion. We all have had the great pleasure of knowing students who are compassionate and considerate. This character strength will not necessarily earn a student high grades in an advanced placement class or lead a student to gain early admittance to Cambridge, Stanford or Harvard. And it will not help a student make a breakthrough scientific discovery. But, in life, kindness is an important quality. It predicts positively to success in one's career, it predicts to more satisfying personal relationships, and it predicts to a greater sense of personal happiness.

Three final heart strengths are gratitude, enthusiasm, and playfulness. By gratitude, I mean being aware of and thankful for the good things that happen and taking the time to express one's appreciation and thanks. Life is best viewed as a gift and not as a burden.

We all prefer to work and spend our time with people who are enthusiastic, people who approach life with vitality and excitement, people who do not do things halfheartedly. Not all students are necessarily enthusiastic. Enthusiasm, or zest for life, is a valued heart strength. And it is an important predictor of success in adult life. Persistent enthusiasm is a wonderful marriage of two heart strengths, especially for students who are working on challenging experiments or projects, when the solution is not obvious and does not come so quickly. Head strengths such as IQ can only get students so far in the real world. Persistent enthusiasm while working on diffi-

cult problems can make the difference between ultimate discovery and success and failure (Pfeiffer, 2012, 2013).

Finally, I conclude with the heart strength of playfulness. People who are playful, who have a sense of humor, tend to brighten everyone else's day. We all know someone with a keenly developed sense of humor, a person who is rarely gloomy, always fun to be with. Humor and playfulness are powerful antidotes for depression. Many highly successful individuals whom I have known attribute the heart strength of humor as particularly important.

Conclusion

The lessons that I have discussed in this article come from a variety of personal experiences. Many of the ideas also come from the poignant lessons offered in the popular bestseller, *All I Really Need to Know I Learned in Kindergarten*.

Identifying high-ability students is not an easy task, the development of talent requires considerable time, effort, and much more than ability, and success requires *both* head strengths and heart strengths. I have come to appreciate these three lessons over the course of my career. I hope that these lessons bear some interest and relevance to your own work. I believe that people's gifts are precious natural resources that deserve our attention, concern, and nurturance.

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