TAFT

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On Perseverance and High Achievement

I have been thinking a bit about the role of perseverance in achievement, and I want to suggest this: there are two ways of explaining high achievement, and one way will help our students in a way the other won't, and that way is needed today. We can approach the subject, through three authors and three Taft students.

In my last years coaching varsity soccer, I had a boy named Casey Ftorek, who played two years of soccer for me, and who scored a lot of goals, both in soccer and hockey, and at a rate that was staggering. Little predicted this. I cut him as a middler—clearly I had an eye for talent! I knew he would make the team as an upper mid, and be good, but I would never have predicted what was to happen.

Casey scored more than anyone—at Taft, in the league, in our history, and not just in soccer but also in hockey. He scored a goal a game as an upper mid, and by October in his senior season, it seemed as if everyone wanted to talk about what he was doing. This is where the first story of his success was heard. Teammates said, "He is ridiculous. It's unfair." Teachers added, "You can't coach that; you are either born with it or not." Coaches said, "That is the kind of God-given talent you just don't see often." It was a simple story: Casey had something no one else did.

But there is another story. It is still about a boy who could score goals better than anyone—it is still about a high level of achievement—but it's a story about perseverance, practice and discipline.

When September of his senior year arrived, I met with Casey to ask him about what he did to train over the season. I knew he was exceptionally focused, but still, his answer amazed me. Casey said, "Mr. Mac, I know that my left foot was pretty weak, and it was a liability when it came to shooting. So I tried to take about fifty shots a day, by myself." You need to think about what he just said. Even if he exaggerated or missed a few days, he must have taken a couple of thousand shots—boring, tiring, repetitive practice. That season he obliterated the record, scoring twenty-nine goals in seventeen games. Almost half were with his left foot.

When the winter came, he led a very good varsity hockey team in scoring and was perhaps the most dangerous player in New England, even though he was not one of the biggest or fastest players on the ice. How did he do it? One day he and I were skating and shooting after a practice. His father was a great NHL player, and Casey told me, "My dad always said you need to be able to lift the puck on your backhand if you are going to be able to score from in close. So every day I dump a bucket of pucks on the ice and I take backhands, maybe fifty or a hundred a day. I've done this for a few years." You can do the math. With that, he tipped over the bucket and started shooting. Who scored the overtime goal that sent us to the New England finals, and what kind of shot was it? You guessed it.

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Let's look at another student, my advisee Charmaine, who graduated from Taft in 2007. I knew her slightly when she was a new student, and at the end of her first year she came into my office and asked me to be her advisor next year. Not many new students come in to the headmaster's office unannounced to ask me to be their advisor for a year that has not yet begun. When I asked her, "Why did you ask me?" she answered, "I wanted you to get to know me."

I am not sure I ever gave her any useful advice, but I know that day a pretty remarkable young woman had walked into my office.

Charmaine was born in Trenton, New Jersey, and came here through the New Jersey SEEDS program, an academic support and scholarship program for students in low-income families. Every grade she had earned in middle school had been an "A," and teachers described her as the kind of girl who loved a challenge, was insatiably curious, fiercely independent. You may have seen the typical teacher recommendation forms, where the column of boxes under "Excellent" are on the far left side of the page, "Average" in the middle, "Below Average" to the right. One teacher put check marks and stars on the left edge of the form, past "Excellent," as if it was searching for even higher praise. At Taft, Charmaine was smart, driven, focused and tough. Her academic training was weak, but she more than compensated with a quietly ferocious drive, some sense that there was someone gaining on her. She worked hardest where she struggled most. She had a really tough time in Rusty Davis' AP physics, and I recall her seeing Rusty in his office for extra help, almost daily, sitting in the chair next to him, the two of them hunched over the textbook and a TI-84 calculator. In his class comment, he wrote, "To be sure, physics has been a tough course for you, but you have gotten yourself over the hurdles." Others described her as "the hardest worker in the class," "intensely diligent," and "resilient and mature." She was smart, but that hardly accounts for the way she came from the back of the pack and closed the gap in the race of her schooling. By her senior year she was a dormitory monitor, a campus leader, and taking a full slate of APs. I was not surprised when she was admitted to Columbia.

So in thinking about this talk, I wrote her, asking about what she had learned about perseverance. Naturally, she wrote back, between classes and her job:

> I think of growing up in a single-parent household, attending an under resourced public school, and growing up in a neighborhood where drug dealers hung out on street corners. My mother did a great job at sheltering me from this environment, but as I got older, I wanted out. I knew that in order to get out, I had to work hard, identify short-term and long-term goals, and do whatever it took to meet those goals. My point is that "grit" has been a part of life as long as I can remember. I learned at an early age that giving up was

> never an option.
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> When I reflect on my experiences at Taft, I have a really hard time defining the role of perseverance in my accomplishments. During this period of my life, the separation between grit and intelligence was artificial to an extent. I think of the times when I struggled to understand concepts, even after studying them for hours and meeting with teachers to review. Sometimes I understood things after a few minutes. I do not know if I finally understood because I was persistent or because of my intelligence.
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> As I got older, [though] it became very clear to me that talent was no longer enough; it is really about how badly you want the designated goal. Grit took on a greater role.

I thought: if she learned nothing else at Taft, she did alright.

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There is a thread here in the stories of these two students, and you can tug at it: perseverance, more than anything, even talent, seems to lead to and explain achievement. That this sounds obvious should not be surprising, but when we look at what perseverance is, we find that there has actually been a lot of academic study on the topic, the answers are not quite what we might expect, and the conclusions really need to be understood by this generation of students. So that is what I have been reading for the past couple of years, first with Malcolm Gladwell's Outliers, and then a lot of other works, including the research of University of Pennsylvania Professor Angela Duckworth, who addressed both the students and faculty a few weeks ago, and Geoff Colvin's Talent is Overrated. Collectively, what these writers have to say has a lot to do with the work of Taft, at least if you think that part of educating the whole student has something to do with teaching how to persevere when things are tough.

Gladwell's Outliers is highly entertaining, as all of his works are. What he sets out to do is explain why some people get really good at something when others don't. It turns out that there are lots of factors, and extraordinary innate ability—"God-given talent"—is not the most important one. Timing and culture matter a lot, but another reason, he posits, is that outliers have just put in more time at their activity than anyone else. They have persevered. Consider how his story of the Beatles in their early years performing as a band explains their success. They were just another band in 1960-1962, but through some luck, they ended up getting hired by a man who owned a club in Hamburg. It was a pretty gritty place, part rock and part strip club, and the Beatles did not perform the typical two-hour sets. Instead, they had to play eight-hour sets, essentially every day. That is a lot of practice. And it was hard work. They made a total of five trips to Hamburg and played 270 nights. By the time

they invaded America, they had played 1,200 gigs. Biographer Phelp Norman writes, “They were no good on stage when they went there, and they were very good when they came back…. They weren’t disciplined on stage at all before that. But when they came back, they sounded like no one else. It was the making of them.”

This, Gladwell says, is the “10,000 Hour Rule,” and he gives other examples. It says that given a certain level of talent—and not necessarily a particularly high level—anyone can achieve greatness, but only if he or she works very hard and for a very long time.

I remember thinking a lot about this book after I read it. Even as I had no illusions that a Taft student would in his or her time here put in 10,000 hours on, let’s say, English, I was sure that there was a lesson for teachers who devote their days to trying to find ways to help students work, think, write, figure, paint, sing, perform and play at a high level. And there was a lesson for our students, many of whom find that the habits that have brought them success in the past are not sufficient to succeed at a very challenging school. What Gladwell was saying was very important: that achievement is available to all, at least all who are willing to work really hard. Casey and Charmaine seemed to know this.

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Saying that working hard on tough tasks is more important than being smart is a pretty powerful claim, so we have to probe the hypothesis, and that is what Professor Angela Duckworth has done in her research.

In 2005, she and Martin Seligman published the findings of a longitudinal, multi-method, multi-source study in Psychological Science in an article entitled “Self-Discipline Outdoes IQ in Predicting Academic Performance in Adolescents.” The title alone had me hooked. Their study was conducted with 140 eighth graders, and it examined self-discipline, measured by self-report and parent and teacher report. It is an important study.

The article begins with three questions we have all asked: “What distinguishes top students from others? Are they simply smarter? If so, what explains the wide range of performance among children of equal IQ?”

What they found out is pretty interesting:

Self-discipline measured in the fall, they discovered, “predicted academic performance more robustly than did IQ. Self-discipline also predicted which students would improve their grades over the course of the school year, whereas IQ did not.” I know; you are thinking, “Duh.” But it’s not actually that obvious: a lot of us would have begun by saying, “Ability, primarily shown through testing, will predict performance.”

But ability did not predict well, and this conclusion cut up across gender, ethnic and economic lines, and not by slim margins: Duckworth and Seligman found "correlation co-efficients between self-discipline and most achievement indicators significantly higher than and at least twice the size of correlations between IQ and the same outcomes." In other words, it was not even close. Seligman and Duckworth write, quietly but with understandable satisfaction, "These results suggest that, indeed, self-discipline has a bigger effect on academic performance than intellectual talent." If I were a Taft parent, that sentence would interest me.

Put very simply, in September, if you were going to place a bet on who would be most successful come June, you had better put your chips down not on the boy or girl with the highest IQ, but on the one who was the most disciplined and persevering.

This may seem obvious, but it is not; and it is counter to what lots of people have thought. I think it is actually a powerful and perhaps emancipating truth for our students, because it changes everything. It changes how teachers and parents talk about achievement; it changes what we look for, value and praise; and it changes how students see themselves. It places an emphasis on what can be controlled—attitude, effort, perseverance—rather than on what cannot be controlled: i.e. what you were born with.

I love how Duckworth and Seligman close:

> Underachievement among American youth is often blamed on inadequate teachers, boring textbooks, and large class sizes. We suggest another reason for students falling short of their intellectual potential: their failure to exercise self-discipline…. We believe that many of America's children have trouble making choices that require them to sacrifice short-term pleasure for long-term gain, and that programs that build self-discipline may be the royal road to building academic achievement.

If you have read enough of these articles, you are struck by these lines: they are unusually editorial and even poetic. When was the last time you read an article in a major science publication that spoke of a "royal road" to achievement? It is a terrific and compelling study. It helps explain Casey's and Charmaine's achievement. It says, "Effort trumps ability."

I said to the faculty this: Taft students need to know this. These lines matter to all of us at Taft, as we are in the business of educating the whole student, and we have a unique opportunity to push students down this royal road. And this conclusion particularly matters if you believe, as I do, that self-discipline, perseverance and grit are less common in adolescents today—and that a mark of a good school is one that graduates students who are more able to persevere than when they arrived.

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Let's turn to a final author, Geoff Colvin, Sr. Editor of "Fortune" magazine, and author of Talent is Overrated. It's a very good book, and it adds to the ideas Gladwell, Duckworth and Seligman explore. The most important idea in the book is not that working hard and persevering matters, though that is part of it. Instead, it is that working in a particular way—"deliberately"—that matters.

Colvin says that it is very hard to prove that specific natural gifts lead to great performance. Really successful people often show no preternatural abilities. Indeed, he writes that compelling evidence for a link between achievement and a "natural gift" in, let's say, violin playing or chess, is hard to find.

More importantly, he also says that what explains high performance is "deliberate practice. [And] exactly what this is and is not turns out to be extremely important…. Deliberate practice is hard. It hurts. But it works. More of it equals better performance. Tons of it equals great performance."

In other words, Colvin dismisses the centuries old idea that God-given talent is the prerequisite for high achievement. If you are trying to convince your child of this, you might reference the data he has which supports the claim. A 1992 study of musicians in England, for instance, could not find any evidence of top students having more talent than less successful peers: only practice hours differentiated them. A well-known study in 1998 at Carnegie Mellon on short term memory proved conclusively that people of average abilities could, with practice, achieve extraordinary results. (Consider the one subject who was able to memorize 82 random digits, about sixty or seventy more most of us in this room would be able to do right now.) Other researchers testing the hypothesis with studies using music, chess, scrabble, and math have ended up at the same place: "What the research suggests very strongly is that the link between intelligence and high achievement isn't nearly as powerful as one commonly supposes."

Colvin is at his most convincing when he cites an exhaustive study conducted at the Music Academy of West Berlin in the 1990s, where professors were asked to divide their students by ability into three groups. They had a lot in common: all students had begun playing at roughly the same age, had amassed similar hours of practice, and stated that practice alone was the most important exercise in terms of improvement. But, the top group distinguished itself because these students practiced longer alone than the others, and critically, they worked longer on the things that were hardest and least fun. They took a lot of left foot shots, did a lot of physics extra help.

So how we practice turns out to be the single most important factor in determining levels of achievement. "Deliberate practice," as the authors term it, is not just putting in the time. High achievement requires a specific kind of practice, and his definition is perfect: "It is activity designed specifically to improve performance, often with a teacher's help; it can be repeated a lot; feedback on results is continuously available;

it is highly demanding mentally…; and it isn't much fun."

This is the single best description of what is required for academic success I have ever come across. If you take anything from this talk, I would hope it would be that sentence. Suggestion: make it a screen saver. Let's take the definition apart, for it's in five parts and Colvin elaborates on each:

1. First, the key is that the activity is carefully designed by a teacher. "At least in the early going," Colvin says, "and sometimes long after, it's almost always necessary for a teacher to design the activity best suited to improve an individual's performance. [These exercises] are meant to stretch the individual beyond his or her current abilities…." This is why pro golfers need swing coaches; it is why Carnegie Hall soloists still take lessons. This is our job as teachers.

2. Second, the activity can be repeated a lot. Repetition is critical, and so the activity, or versions of it, must be easily duplicated. Your sons and daughters can attest to this: they probably have complained about basic skill review, boring grammar exercises, tedious homework, yet another essay.

3. Third, feedback on results must be continuously available. It's why you see students carefully reading comments on an essay, why a math teacher offers critique of a solution as the student is writing it on the board, why you'll find student and teacher looking over an assignment at night in the apartment or at the table at breakfast.

4. Fourth, it is highly demanding mentally. Colvin writes, "[It] is above all an effort of focus and concentration." You know this: it's why we want quiet dorms at study hall, why advisors tell advisees to do their hardest homework first, why classes and practices are divided into "chunks"—why you don't hear your children often saying, "That was easy!"

5. Fifth, deliberate practice isn't much fun. I find Colvin really compelling here, as he reminds us that

> doing things we know how to do well is enjoyable, but that's the opposite of what deliberate practice demands. Instead of doing what we are good at, we insistently seek out what we are not good at. Then we identify the painful, difficult activities that will make us better, and we do those things over and over. After each repetition, we force ourselves to see—or get others to tell us—exactly what isn't right so we can repeat the most painful and difficult parts of what we've just done. We continue that process until we are mentally exhausted.

I have to tell you: I love that explanation. This is what learning at Taft should look like. In the classroom, the playing field, on the stage, a teacher sees something a student (or

class, or team, or group) has not mastered; she designs specific exercises which target the required area; she requires extensive repetition; she offers feedback continuously; and she remind them that this kind of practice will be really tough mentally and not a lot of fun.

Here's how Colvin ends his chapter "How Smart Do You Have to Be?":

> What's surprising is that when it comes to innate, unalterable limits on what healthy adults can achieve, anything beyond those [physical] constraints is in dispute. Clear evidence that non-physical constraints has not been found so far. That fact is profoundly opposed to what most of us believe. We tend to think we are forever barred from all manner of successes because of what we were or were not born with. The range of cases in which that belief is true turns out to be a great deal narrower than most of us think.

That's a stunning paragraph and a really important one for our sons and daughters.

Perhaps there is some cheerleading in Colvin, but his research is very good. He's hardly fluffy. Not everyone is going to reach the highest levels, but he does say that if they do not, it will not be because they did not have the ability:

> We're wrong in thinking…that the exceptional nature of great performers is some kind of eternal mystery or preordained outcome. It is, rather, the result of a process the general elements of which are clear…. There is in fact a path leading from the state of our abilities to those of the greats…. It is extremely long and demanding, and only a few will follow it all the way to its end. No matter how far one goes, however, the journey is always beneficial.

He speaks of a "path" or "journey," and it's the same "royal road" Duckworth and Seligman described. It's available to every student here, but there are conditions.

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Let me pull this together. Gladwell tells us that outliers got where they did by putting in lots of time; Duckworth and Seligman tell us that high levels of achievement are more closely correlated to self-discipline and perseverance than intelligence; and Colvin argues that a particular kind of practice—carefully designed, feedback-rich, and considerably difficult—can lead to average performers achieving excellence.

I think their collective thinking is needed today. In an age when too many students have been told they were gifted and talented and assumed achievement followed the designation, when most received a trophy for simply showing up at the soccer tournament, when many struggled to work deliberately as they were inefficient and too easily distracted by Facebook and the cell phone—this is the time they need to hear and understand the research.

The distinction I am making about perseverance and intelligence in high achievement is not merely an abstract one, some intellectual slight of hand. It has everything to do with how an adolescent views himself and faces future challenges. I don't want a Taft graduate entering the global market believing that what she achieves will be determined by what she was born with. If that happens, we have failed. It may not be too much to say that for an adolescent to truly know and believe this truth about effort is to bend the bars of genetics: it is to grant some measure of control over one's life. It is to put a hot and shining light on character. It is to say talent is not destiny; character is destiny.

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To Casey and Charmaine, we will add one final student, a young woman I knew in my early days teaching, Maureen Donohoe, whose memory I return to often, if privately, when I think of how we should talk of achievement in terms of perseverance and not what you were born with.

Maureen, or "Mo" as we all knew her, came to Taft as a lower middler, and she had significant physical disabilities, a result of being born with cerebral palsy. She used a cane to limp around campus, lurching through the halls and stopping to catch her breath at stairs. She had curly hair and a perpetual smile. In measurable ways, she was average in ability. Her test scores were solid but not distinguished, and, of course, she could not play a sport; it was hard enough to get to class before the bell rang as her classmates sprinted past her. I don't have to tell you what it was like getting from the Main Building to the library when the February ice glazed the steps and walkways.

She had "A" effort grades essentially every marking period, her entire career. She made the honor roll early on, and she stayed there, by virtue of jaw-dropping perseverance. Every night she worked with incredible persistence, and especially on the things she was not good at. I am guessing that most evenings were hard and tiring, and probably plenty of times no fun.

Teachers, advisors and deans used the same language to describe her, and she sounds like exactly the student Duckworth, Seligman and Colvin were writing about:

> "Her physical limitations have not prevented her from doing an outstanding job."
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> "She deserves to be proud of her successes because they have resulted from her perseverance."
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> "She has tackled each challenge tenaciously."
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> "Mo keeps her spirits up. Her teachers notice that sometimes she tires, yet she never gives up. "

> "Even in the subject in which she has some difficulty, math, she has remained upbeat and diligent, a sure sign of character."

So, she was inspiring and beautiful evidence of Colvin's conclusion that "when it comes to innate, unalterable limits on what healthy adults can achieve, anything beyond those [physical] constraints is in dispute." Mo was disappointed that she missed election to Cum Laude by the narrowest of margins, but she had a terrific senior fall and was admitted to Yale. I knew how hard it would be to manage that campus, what with the city streets and century-old buildings, but you can guess: she was just fine. At the end of her freshman year, she became ill and died of complications related to her disabilities. A lot of us went to the service, for we knew the world had lost a special light. I have thought of her often. She was such visible proof that perseverance and resilience are available to all students, are qualities that can be strengthened and deepened, are critical in meeting life's challenges—and should be traits we actively teach at Taft. She was a lot of clinical research given flesh.

I wrote her brother Ray not long ago, he also a Taft graduate. We had lost touch for a few years, but it will not surprise you to hear he is a teacher, and really wise and compassionate one at that. When I asked him about his sister's courage and perseverance, he wrote this in a rather remarkable letter:

> To see her walk through the doors of Taft on her first day as a Lower Mid would be to see someone who had already shown enough effort and perseverance for a lifetime. The early years with leg braces, the awareness that people were constantly staring, the inability to participate in arenas that so many of us take for granted, and the truly horrible middle school years, where cliques were formed, and she was constantly on the outside looking in--these conditions would have defeated most.
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> And privately, she struggled. She didn't appreciate her fate (though she used her faith forcefully as a tool to try to find an explanation), and she couldn't understand why she wasn't always accepted, and far too often she would come home and break down as soon as the door would close.
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> But, again, that was all done privately. In public, her coping mechanism was to hold her head high and to approach both friend and foe with a smile. It sounds hokey, but I don't know of many who could have pulled it off.
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> By the time Mo arrived at Taft, in fact, her worst years were behind her. Because Taft was so very welcoming and the faculty so supportive, and because Mo had to a large extent come to terms with her disability, Taft served, rightly, as a place of nurture.
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> There were difficult times to be sure--coming-of-age moments, if you will. I honestly do not recall who the teacher was, but Mo was taking a Drama class

during her Mid year, and the scenes they were performing were videotaped. When they gathered around the TV to watch the performances, Mo was taken aback. She had never seen herself walk before, with the dragging feet and the side-to-side gait. She was horrified. She excused herself to the bathroom, but not before the teacher caught on to what had happened. After a few moments, the teacher spoke to Mo, consoled her, called my parents, apologized (unnecessarily), and asked for advice. There was none to give. It was probably the only time during her Taft years that Mo broke down at home as soon as the door closed behind her. But Mom and Dad knew, and Mo begrudgingly recognized, that the next day she'd be back, chin up and smiling. And naturally, she was.

And there's a reason why that is the only story I can come up with regarding Mo's Taft experience. There are actually several reasons.

Effort and Perseverance require tremendous personal strength. They require much of an individual. But there is no rule that demands the individual must stand alone. Maureen's teachers played their roles splendidly, as those willing to serve. Unselfishly, they gave of their time to assist Mo, to challenge her academically, and to nurture her as she matured. The nurturing could take place subtly by just having an open ear, or more overtly in the form of praise or advice. So she didn't go it alone. Through the efforts of BOTH herself and her teachers, Mo was able to persevere.

Gladwell, Duckworth, Colvin—they were writing about Mo, and Casey and Charmaine, and every other Taft student. Your son. Your daughter. Your school.

Perhaps that's where we should leave this, at the intersection of student and teacher, a moment as old as this school, and where character is formed.