1 *You Can Do It*

If you can dream it, you can do it.

Walt Disney[1]

Wow! Look What's Possible

Let's hit the ground running before rushing off to scholarship.

No human had ever broken the four-minute mile. The barrier was both physical and psychological, even for well-conditioned track athletes. Then in 1954, 25-year-old medical student Roger Bannister finally cracked track and field's most insurmountable barrier. Bannister clocked the world's first sub-four-minute mile, beating the mark by six-tenths of a second. It's what happened afterward that is most surprising though. In the year following Bannister's barrier break, thirty-seven more runners trimmed the four-minute mark, including three runners in a single race. Suddenly, the unyielding barrier had crumbled. Before long, silver-haired grandmothers, Sumo wrestlers, and those running to catch a bus were beating the mark. Some were beating it many times, such as American miler Steve Scott who broke the four-minute barrier 136 times. Today, the world record in the mile stands at three minutes, forty-three seconds. Wow! Wow for barrier breaking, wow for Steve Scott, and wow for the current world record. Any doubt that record will fall?

Of course, the impossible became possible in other running events. Consider the marathon, a race just over twenty-six miles. The victor in the first Olympic games in 1896 finished in about two hours and fifty-nine minutes, a pace of nearly seven minutes per mile. That's some pretty good picking-them-up-and-putting-them-down, but nothing compared to what marathon runners are churning out today. Heck, my best marathon time would have earned me gold medals in the first six Olympics, even though I'm a middle-of-the-pack runner in modern times, with my best time lagging about half an hour behind the world

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record, which stands at two hours and one minute, a staggering four minutes and thirty-eight seconds per mile pace. Wow! Wow for marathon running and for record eclipsing. Any doubt that record will fall?

And it's not just an elite few who are accomplishing amazing athletic feats. It's also the average Joe and Jane, or should I say Dick and Courtney? Dick Hoyt was a sedentary man who had never run more than a mile, had never learned how to swim, and had not ridden a bicycle since he was six years old. It was then, in 1977, that his son, Rick, who was wheelchair bound and could not speak, typed a message asking Dick to push him through a five-mile charity run for a high school classmate. Dick mustered the motivation and stamina to complete the race with Rick but felt the pain for two weeks. Meanwhile, Rick felt exhilarated and wrote, "Dad, when we were running, it felt like I wasn't disabled anymore."[1] That sentence became Dick's motivation to push, pull, and carry his son to places few can imagine. In the ensuing years, until Dick's death in 2021, the pair completed nearly a hundred marathons, including thirty-two Boston Marathons; completed nearly three hundred triathlons (swimming, biking, running), including six Ironman Triathlons; completed hundreds of other races; scaled mountains; cross-country skied; and biked across America. Wow! Wow for the Hoyts' accomplishments. Wow for dedicated parenting. Sometimes reading your children a bedtime story or taking them to the park just won't cut it.

Courtney Dauwalter is a former high school science teacher who latched on to running to clear her head before work or to meet up with friends for a chat. Today, she is an ultramarathoner, defeating top men and women alike in some of the world's most grueling long-distance races of a hundred miles or more. In 2017, she destroyed the field in the Moab 240 Mile Endurance Race across the rocky peaks of Utah, which included nearly 29,000 feet of elevation gain and descent. Courtney's two-day and ten-hour finishing time put her an incredible ten hours ahead of the second-place racer, a man. Wow! Wow for ultramarathon runners. Wow for Courtney.

One more running figure. What did you accomplish outside of work in the past forty-six days, eight hours, and thirty-six minutes? Perhaps you got your car serviced, paid your monthly bills, fertilized your lawn, binged-watched a show on Netflix, and played a round or two of golf. Not a bad month-and-a-half. Now let me tell you what Pete Kostelnick did in that time: He ran across America. The 29-year-old financial

analyst took off from work for a couple months and ran 3,067 miles from San Francisco to New York, smashing a 36-year-old record for running across America. To complete this odyssey, Pete averaged – are you sitting down, of course you are – over seventy-two miles per day, nearly three marathons a day. Pete ran about fourteen hours per day for six weeks. Wow! Wow for Pete and his astounding accomplishment. How are you feeling now about that two-mile stroll through the neighborhood?

Wow! Right? These running stories are incredible. Most importantly, they stretch your imagination about what is possible. They inspire you to do more. Now, let's stretch your belief system about what is possible among scholars.

When I investigated psychologist Michael Pressley,[2] he had published 126 articles over the previous ten years, about 13 articles per year. In that interview year alone, Pressley published eighteen articles and three books and edited two more books. He served as editor-in-chief for two journals and was on the editorial boards of nine other journals. He garnered two major awards. Oh, he was also department chair. Wow!

When I investigated psychologist Richard Mayer for a second time,[3] he had published 27 books and 329 articles in a career spanning thirty-eight years, and his productivity was on the rise. His ten-year productivity rate jumped from 95 publications between 1992 and 2001 to 150 publications between 2002 and 2011. That's fifteen publications per year over ten years. And, Mayer is not slowing down, having published eight books and 160 articles in the past ten years between 2012 and 2021.[4] Wow!

Okay … now you say it! Wow! Scholars can accomplish amazing things.

Now, here is the point. You can too. Productive scholars are not born; they're made. Ditto for accomplished runners, chess players, baton twirlers, figure skaters, and musicians …. You name the talent area: All made, not born. Psychologist Benjamin Bloom[5] was among the first to investigate expertise when he studied the top 120 Americans in music, art, athletics, mathematics, and science. Bloom's resounding conclusion was this: What these talented people have accomplished, almost anyone can accomplish if conditions are right.

Be a More Productive Scholar reveals the conditions that make productive scholars like Pressley and Mayer so productive.

Conditions laid out in this book that you can access and control now that you know what is possible. Wow!

Recognize That Talent Is Made, Not Born

At first glance, it appears talent is born. How else could there be prodigies like Wolfgang Amadeus Mozart, Pablo Picasso, and Bobby Fischer? Mozart was playing piano at the age of three and composing at the age of six. As a child, Picasso painted masterfully. Gertrude Stein said that young Picasso "wrote paintings as other children wrote their A, B, Cs."[1] Picasso said: "I never drew like a child. When I was 12, I drew like Raphael."[2] Fischer became the youngest US chess champion at age fourteen. At sixteen, he became the youngest ever to attain the grandmaster title. It sure seems like talent is born, perhaps a gift from the gods as some believe.

Look a bit longer, though, and talent appears made, even among these prodigies. Both Mozart[3] and Picasso[4] were tutored by devoted fathers who were accomplished in their son's eventual talent domain. Leopold Mozart was an accomplished violinist, composer, and concert master who literally wrote the book on violin instruction the year Wolfgang was born. Picasso's father, Jose Ruiz Blasco, was a painter who taught drawing at various art schools. Fischer[5] had no parental chess lineage, but he was raised in New York City, a chess Mecca, where he was able to push pawns nightly with top-ranked grandmasters at nearby chess clubs. That's not all. Fischer was a child consumed by chess. He played on a pocket set on the bus ride to and from school. He snuck chess books inside his schoolbooks to read during class. He left school during lunch to play chess with a chess master who lived down the street. At age sixteen, Fischer left school permanently, dropping out of school to study chess full time. These prodigies made their talents.

Look longer still and it is evident that this talented trio did not become experts overnight. Their talents took many years to develop fully. Such is the case with all extraordinary creators. Psychologist John Hayes[6] studied talented composers and artists and found that all of them studied their craft diligently for at least ten years before producing a master work. True to form, Mozart's first landmark composition was penned when he was sixteen. Picasso painted his first master work when he was twenty-five. And Bobby Fischer captured the

chess world championship at age twenty-nine. Had these extraordinary creators not worked so hard for so long, Fischer might never have dismantled Boris Spassky and the Soviet chess machine that had dominated chess for decades. Picasso might never have created the antiwar mural *Guernica*, which stretched eleven feet by twenty-six feet. Image renderings might have never left his sketchbook. And, Mozart might have never composed *The Marriage of Figaro*. The world might have only known *The Engagement of Figaro* or, heaven forbid, *Figaro's Finest First Dates*. Talent is made, but its making takes time.

This is great news. These and thousands of other talent stories, including those of productive scholars, confirm that the seeds of talent development rest in your own hands. You need only sow the seeds and, over time, cultivate their growth. But to do so, you must believe that talent is made, not born.

Talent Can Spring Most Anywhere

Among the productive scholars investigated, several hailed from well-educated families with deep education roots. Richard Mayer,[1] Erika Patall, and Sabina Neugebauer[2] all had fathers who were academics. Each told childhood stories about helping their fathers with scientific projects and traced their own success to those academic roots.

Several others, though, climbed to their field's highest branches despite having a fragile root system. Hefer Bembenutty[3] tells the stories of successful academics who rose from humble beginnings. David Berliner, an expert on teaching and learning, was raised in an old tenement in the Bronx. His father was a drug store clerk and his mother a secretary. Brian Coppola, a pioneer in discipline-centered teaching and learning, was the son of second-generation immigrants. His father was from a family of Italian cigar makers and shoemakers; his mother was raised on a poultry farm. John Hattie, well known for his meta-analyses on educational topics, was raised in a rural New Zealand home without a television or car. His father was a cobbler, his mother a movie theater manager. Hattie never traveled more than twenty miles from his home as a youth. James Banks, known as the father of multicultural education, was raised on a family cotton farm in Arkansas and experienced segregation firsthand. Growing up, he could only go to the Memphis zoo on Black Day, had to drink from a fountain labeled "colored," and could not enter the city library.

My own interviews and personal experience also confirm that a privileged path is not the only entry point to scholarly success. Tamara van Gog and Patricia Alexander hailed from working-class families and credited their nonadvantaged upbringings for their success. Van Gog said:

> I've seen how hard people have to work and how you can only do extra things if you do additional work. My mother always stimulated us to do well in school as a way of getting ahead. And, my step-father was an early riser and often went to his vegetable garden before work. I think I got my hard-work habits from him because he made clear that if you want something, you have to work for it.[4]

Alexander similarly credited her "blue-collar" upbringing for her success:

> I learned how to stand up for myself in life, which carried over into my work. I was never one to let anyone stifle my voice – at least not without a fight. I did not always expect to win, but I always expected to keep trying when something really mattered.[5]

Logan Fiorella,[6] meanwhile, admitted that he too did not have a family background that pointed him toward psychology and academia, let alone scholarly success. Neither parent completed college. In fact, Fiorella's path to scholarly success was more a stumble than a scamper. For instance, Fiorella "just happened to apply to the University of Central Florida because it was close to home." He naively majored in psychology because "that sounds interesting." Once there, he thought, "I guess I need to get research experience, whatever that means." That realization led Fiorella to "randomly explore different research labs and stumble onto the Institute for Simulation and Training" where he got his first research exposure. The lab experience sparked a general interest in research, but Fiorella "still didn't know what I wanted to do." He half-heartedly applied to Ph.D. programs in human factors but was not accepted. He remained at Central Florida to pursue a master's. It was during that two-year program that Fiorella was exposed to and drawn to the work of Richard Mayer on multimedia learning. Fiorella contacted Mayer to express his interest, applied to the program, and was accepted at the University of California, Santa Barbara with Mayer as his advisor. Fiorella found his niche without much forethought and without privilege.

My own academic journey was also one without privilege. My parents were high school educated. My mom was a cook in a local elementary school, and my dad operated a bulldozer following a stint in the military. I was a disinterested student until finding my stride in high school. I decided to pursue college, but without much forethought. I attended a small, little-known state college in New York without even visiting. My college days began a bit like *Animal House*, although I was never placed on Double Secret Probation. My first-semester grade-point average was 2.3, including a D in meteorology wherein the instructor reported my performance on the final exam as, "F minus, minus, minus," and asked if I was under the weather. Like meteorologists always get things right. I found my educational psychology element sophomore year when I took a class from Professor Nelson DuBois. The material was delicious, infectious, and Professor DuBois was a model of effective instruction. I wanted to do what he was doing. I stopped skipping classes and began auditing every educational psychology class on the books. Still, I had no idea about how to become an educational psychologist or about graduate schools. Fortunately, Dr. DuBois counseled me on the best graduate schools for educational psychology, helped me apply, and wrote a strong letter of support. With several acceptances in hand, Professor DuBois helped steer me toward Florida State University because of its reputation in instructional design, which included a stellar faculty headlined by Dr. Robert Gagné, the father of instructional psychology. Professor DuBois even helped me negotiate a teaching assistantship instructing undergraduates in educational psychology – just like him. Without academic roots, I had found the trail to academic training and potential success.

Believe You Can: Build a Growth Mindset

If you believe you can, you can. If you believe you can't, you can't. Belief matters.

Psychologist Carol Dweck,[1] one of the productive scholars I investigated, coined the terms fixed and growth mindset to represent the dichotomous ways people view their potential and ability to succeed. Those with fixed mindsets believe that their abilities are preset by biology and immune to experience. What you have is what you've got. Those with growth mindsets believe that their abilities are modifiable

and shaped by experience. What you have is just the start. In one mindset experiment, students were questioned to establish their mindsets – fixed or growth. Students were then given a series of math problems, first simple then difficult. As expected, all students performed well on the simple problems. Regarding the difficult problems, fixed mindset students performed poorly on these and attributed failure to low intelligence or low math ability, saying things like "I'm not very smart" or "I'm not good at math," even though they had just solved the simpler problems with ease. Seeing the more difficult problems, they often gave up without trying. Meanwhile, growth mindset students performed well on the difficult problems. Their growth mindsets prompted them to embrace the challenge and work harder on the difficult problems, invent new strategies when needed, refuse to give up, and not assign self-blame when they did make mistakes. Their growth mindsets kept them believing they could succeed and succeed they did.

Having a growth mindset is better than having a fixed mindset, for two reasons. First, you'd have a mindset supported by science. Science has shown that abilities are not fixed; they are modifiable. Consider intelligence. In one study published in *Nature*,[2] researchers gave adolescents intelligence tests and scanned their brains. Then they tracked the students for four years, retested, and rescanned. Results revealed wide IQ changes over four years, with scores rising or falling by as much as twenty points. Twenty points is enough to move someone from the average intelligence category, where 50 percent of the population reside, to the gifted category, where just 6 percent reside. Researchers were convinced that IQ changes were not superfluous, because changes in IQ corresponded to changes in brain structure as shown in the brain scans. This is not surprising because many scientific studies show that experience changes brain structure. One famous study involved London cab drivers[3] who undergo rigorous training for years navigating the complex London streets before earning their cab license. Brain scans revealed that navigational training increased the size of the brain's hippocampus, where spatial navigation takes place.

The second reason that a growth mindset is better than a fixed mindset is because a fixed mindset is impervious to the two things that help people learn: skill and will. People improve as they learn new skills such as how to take better notes or how to solve algebraic equations.

People also improve as they increase their motivation, their will, to succeed. Fixed mindset folks shun skill and will urgings. They say things like "skills won't help me, I'm dumb, and I can't learn new skills" or "why try harder, it won't help, and I'm operating at my full potential." Even when someone is gifted, a fixed mindset limits them. They might say "I don't need to learn new skills, I'm already smart" or "why try harder, I'm a natural at this." Fixed mindsets are dooming. They leave one like an anorexic hermit crab afraid to grow, afraid to shed its protective shell, afraid to step into a challenging new world where much can be experienced and learned.[4]

Mindsets are particularly important for members of stereotyped groups. For example, African Americans are sometimes stereotyped as being low in intelligence while females are sometimes stereotyped as being bad at math and science.[5] Such beliefs are debilitating because belief matters. Even checking a box on a test to indicate race or sex or taking tests when outnumbered by students outside your stereotyped group can trigger the stereotype in one's mind and lower test scores.[6] Evoked stereotypes, though, mainly debilitate those with fixed mindsets. Growth mindsets override stereotyped beliefs. African Americans and females with growth mindsets don't believe in race or gender inferiority, and if they fall behind, they believe that they can work harder and catch up.[7]

Stereotypes not only debilitate performance, they yield surrender. They make group members feel they don't belong and drop out. Women and minorities are prone to give up on graduate school and academic careers, feeling like they are in over their heads and don't belong. Here again, a growth mindset can help ameliorate such beliefs. Dweck writes: "Prejudice is a deeply ingrained societal problem ... a growth mindset helps people to see prejudice for what it is – *someone else's* view of them – and to confront it with their confidence and abilities intact."[8]

In sum, it's smart to think about things such as intelligence, spatial ability, creativity, athletic and musical talent, and scholarly success like rubber bands. Regardless of band size at birth, bands can stretch, and stretch a lot, due to experience acquired along the way. Of course, mindsets are modifiable too. Here are three steps for making your fixed mindset a growth mindset:

1. Believe that ability is made, not born. All the talented people you know and all the talented people I studied made their talents. That

goes for luminaries like Mozart and Fischer and for run-of-the-mill folks like Pete Kostelnick. Pete was hardly a natural-born runner. He built his run-across-America endurance capacity one step at a time as he gradually upped his weekly training mileage to two hundred miles per week and to ten thousand miles per year, while working a full-time job. Remember what Benjamin Bloom[9] found: Almost anyone can do incredible things when conditions are right. The seeds of success lie in the palm of your hand.

2. Recognize and change mindsets. Recognize when you are operating with a fixed mindset and throw the growth mindset switch. Change "I can't publish two articles a year, there is not enough time" to "I will find and make the time necessary to work more on my research." Change "only the Mayers and Pressleys of the world can produce at such a high level" to "if they can do it, I can do it too."
3. Cultivate a growth mindset. Take stock each day of your process-oriented growth mindset perspective. Ask and answer questions like these:
   - What did I learn?
   - What mistakes did I make that I can learn from?
   - Where could I have tried harder?
   - Who can help me do better?

Take the Leap. It's Not as Far as It Looks

Even with a growth mindset, success might seem a pipe dream or a long way off. Among the talented children I studied, many of their parents never imagined such success was possible or saw it coming. One parent said: "If someone had told me 10 years ago that we'd be where we are today, I'd never have believed it." Another parent said: "When he started, we didn't know he was going to be this good. We weren't even hoping he'd be this good. It just wasn't on our radar."[1]

Productive scholar Michael Pressley spoke of the importance of believing that success is reachable and not so far away as one might imagine. Pressley said: "If anybody had told me when I was sitting in graduate school that I'd be sitting where I am right now, I probably wouldn't have believed it, but in retrospect, it isn't as far from there to here as I would have thought at the time."[2]

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Pressley advises those in academia to scan the horizon of possibilities and fearlessly take the leap. Pressley retold this Joseph Campbell story to make his point:

> A child comes before a tribal leader for his initiation into adulthood. The child must jump from a cliff. The leader nudges the child toward the edge. The child peers over the edge and recoils in fear. The sage leader calmly says, "Go ahead and jump. It's not as far as it looks."[3]

As you consider your path to scholarly success, don't be intimidated by those farther along the path, be energized. Know that they started in the same place as you. Ralph Waldo Emerson smartly said: "Every artist was first an amateur."[4]

Scan the horizon, take a deep breath, and take the leap. It's not as far as it looks.

It's Never Too Early to Be Productive

I have sat on a lot of search committees looking to hire new assistant professors. I am astounded by some applicants' publication numbers. Several boast double-digit publication numbers, and I recall a just-graduated-applicant CV stocked with more than twenty publications. Among the early-career award-winning scholars I studied,[1] Logan Fiorella entered the job market with ten publications, while Erika Patall entered with eleven. One of my own recent advisees had seventeen. How do they do it? Here are a few suggestions for early productivity:

- Focus on research and publishing. When you apply for academic positions, search committees are not going to review your transcript. It is helpful to have teaching experience and to be a good fit for the position. But above all else, search committees are determining if you'll be productive, be visible. An applicant with a strong publication record will often fit most any position.
- Don't wait to conduct research and publish. Hit your graduate training ground running. Get involved in collaborative studies right away. And not just with your advisor. Join in studies led by other faculty and students. My productive graduate advisee was a floater, seeking out other faculty collaborators across the university – even outside the university – working in areas of mutual interest.

- Be involved in multiple studies. Productive scholars are often involved in five to ten studies at a time, each at varying stages of completion.
- Carve out your own research area. Your dissertation should not be your first and only study on your pet topic. Initiate dissertation-leading studies years in advance.
- Don't let things drag out. Much graduate training leads students to believe that conducting research is a multiyear process. Nonsense. Quality studies can be designed, run, written, and out the door in a few months. Don't let your research projects stretch on like your commitment to learn the ukulele.

It's Never Too Late to Be Productive

Perhaps you think that you should retire when you reach a certain age, or when your eye bags threaten to swallow your nose, or when you fall asleep in faculty meetings (and you're the speaker), or when you don't care to wrestle with the next wave of technology advancements. Think again! I investigated productivity in the wisdom years (those typically marked by retirement) and found people in various walks of life shunning retirement and producing at their highest career levels.[1] Four-time National Championship coach John Cook, age sixty-six, was still guiding the Husker volleyball team into the Final Four and signing top-rated recruits. PBS *Newshour* anchor Judy Woodruff was still investigating and reporting the news at age seventy-five. And educational psychology professor Rich Mayer, age seventy-five, was accelerating his publication rate. His ascending ten-year publication totals over the past thirty years were 95, 150, and 160. In the past sixteen months alone, Mayer had published an astounding 44 works.

Seven years earlier, at age sixty-eight, Mayer could have stuffed his achievement awards in a couple dozen boxes and retired from his university position at full pay and benefits. Nope. Mayer shunned retirement and has, essentially, worked for free ever since. Mayer said: "I have no interest in retiring so long as my health remains good. I simply don't like the idea of retirement. I just don't understand it, and it rubs me the wrong way. My entire life I have tried to work hard and be productive, so then to suddenly say 'I'm going to stop producing now' just doesn't seem right." Curiosity might have killed the cat, but curiosity and passion keep Mayer motoring. He said: "I enjoy what

I'm doing. My work makes me happy, and I'll keep doing it as long as I can. The thing that really keeps me going is my curiosity to pursue burning questions I really want to answer and to potentially discover something new and worthwhile."[2]

Effective time management strategies also boost Mayer's late-season productivity. He said: "It's really important that I segregate the day and week into specific time slots for accomplishing specific things, otherwise the day degenerates into a lot of junkie things that really go nowhere, such as answering email." True to his career form, Mayer preserves and allocates each morning for writing tasks. He said: "That's my most important work and that's when I'm most alert to complete it. If I can meet my daily goal of writing two or three pages in those morning hours, I'm super happy." Mayer schedules his classes and pushes his less demanding tasks like meetings and correspondence to the afternoon. He also preserves evenings and weekends for family time and relaxation, stressing that "family comes first" and that he "needs breaks to keep strong." Mayer does occasionally steal a bit of off-time to review manuscripts for several journals, admitting that doing so is "kind of fun and doesn't feel like work."[3]

Mayer is not immune to aging and recognizes its debilitating effects. Mayer said: "The aging literature tells us that just about everything is moving in the wrong direction as you age. Things slow down. Reaction times slow, senses become dulled, and cognition diminishes. These are not great things. Our bodies catch up with us. We weren't really designed to live this long."[4] To combat these effects, Mayer has four age-slowing defenses:

1. Accumulated Knowledge. Wisdom does not deteriorate, and Mayer draws upon his wisdom. Mayer said: "I can draw on my accumulated experiences conducting research, on my knowledge of the literature, and on my skills such as writing."[5]
2. Health Regiment. Mayer exercises daily, eats healthy foods, and makes sure he logs eight hours of nightly sleep. Mayer said: "As I get older, I find that I do not function well if I don't get enough sleep, but I find my sleep is more messed up. I like to nap and often feel ready for one around 4:00 p.m., which is never a good thing when our department schedules meeting or talks for that time."[6]
3. Workarounds. Mayer admits to a failing memory but uses workarounds to reduce forgetting. Mayer uses a monthly paper

calendar to record appointments, a yellow pad to list his weekly goals and plans, and Post-it notes to signal what he plans to accomplish that day. Mayer said: "This system keeps me focused on what I'm trying to accomplish long term, medium term, and short term."[7]

4. Avoidance. Mayer said: "I try not to think about retirement. I try to look forward, not back. I try to remain focused on my work. There is only so much time in the day to accomplish something."[8]

Productive scholar Doug Lombardi got a late academic start, which probably made him the first early-career award-winning scholar who received his award at a time he could contemplate early retirement. But, like Mayer, retirement is not on the horizon for Lombardi, who said: "I may be different from other early career researchers in that I'm a little bit older, my progeny are older, they're in college, so I haven't had to worry as much about family issues. [I love this work.] I'll probably die in this position."[9]

Don't Aim to Be a Productive Scholar

It is the quality of our work which will please God and not the quantity.

Mahatma Gandhi[1]

Productive scholars don't aim to be productive; they aim to produce important, high-quality work. Patricia Alexander said:[2]

> Don't aim to be a prolific scholar; aim to be the best scholar you can be. Trying to be prolific might be detrimental because it can lead you down a path of producing without meaning, where the numbers take precedence over the influence. Aspire to true scholarship whether that leads to 500 publications or 50 publications. Be sure that each publication represents your best thinking, is influential, and impacts others.

Tamara van Gog said: "Productivity is nice, but it's not the production but what you have to say that ultimately counts. The contributions made are more important than the number of publications."[3]

"Have a few really impactful publications rather than many less impactful publications in not-so-good journals," Ming-Te Wang advised. "It's important to do groundbreaking work that moves the field forward and for people to know your work."[4]

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Sabina Neugebauer also prioritized doing "my best work" over "productivity."[5] And Mareike Kunter sharply emphasized that "quality prevails!"[6]

The seeds for sprouting quality publications were planted in graduate school for graduate student award-winning scholar Hyun Ji Lee. Her advisors stressed publishing a few impactful studies of high quality rather than many less impactful and less rigorous studies. Lee said: "My advisors pursued impactful and high quality research and implored students to always do the same. They prioritized and modeled quality over quantity at all times. Their high expectations for all matters of research – from design to manuscript writing – taught me to strive to do high quality work."[7]

For me, the prevailing question I raise when choosing what to do is not "can this work lead to publication?" but "can this work impact how teachers teach, students learn, parents cultivate talent, or researchers become better scholars?" With such important outcomes hanging in the balance, only my best-quality work will do.

Be Productive Because You Love It: Follow Your Bliss

I love my work more than I love what it produces. I am dedicated to the work regardless of the consequences.

Novelist Naguib Mahfouz[1]

My first talent interviews were with parents of young chess masters. After learning how dedicated their sons were to chess improvement, I asked the parents why their children were so dedicated. All provided much the same answer: He loves it, he loves, he loves it. He's just passionate about chess. One parent said that he once took chess away for a time because the child was faltering in school and chess seemed the best bargaining chip for nudging the child back on course. Being torn from his love, even for a few days, the child was miserable. The parent said: "It was like yanking the soul out."[2]

When it comes to productive scholars, I found them much like the chess players. They work tirelessly because they love it. All would agree with writer Mark Twain who quipped: "Find a job you enjoy doing, and you'll never have to work a day in your life."[3]

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John Glover loved his work. Former Glover student Alice Corkill said: "You could often hear John laughing in his office. He had this big booming laugh, and he laughed a lot … He was excited about his work, he was happy, he was laughing, he would joke around, and he was a fun person to be around."[4] So fun, in fact, that when Glover took the last of his daily bus rides to the University of Nebraska before changing institutions, his faithful co-riders threw him a party on the bus. They served cake and dressed in loud Glover-inspired plaid blazers to salute their fun-loving friend.

Scholar Doug Lombardi echoes Twain's wisdom: "I work all the time. But is that a bad thing? I don't think so. It's energizing. It's wonderful. I love it. I love what I do!"[5] When asked when he writes, Lombardi's work passion shined through: "What do you mean by writing? A lot of my writing is done when I'm taking a shower, washing my hair, or brushing my teeth. A lot of writing is done on my walks because I think about this stuff all the time."[6]

Scholar Michael Pressley was similarly engulfed in his scholarly pursuits. Pressley said:

> Ideas are constantly on my mind. And the people I'm working with, I'm always talking to them about it. Sometimes, we'll just sit around for a day and a half and brainstorm, and those are interesting sessions … I seek out literature in the bookstores or library or I sit in my office and think about possibilities. I'm sort of always turning stuff over in my head, and then I'll run into things that sort of set off associations in my head and "click." I make sure I get those down.[7]

I knew Pressley was consumed by his work when he told me that he went to a movie with family but left to read a book in the lobby because he found the movie boring. I said: "Hey, wait! Who brings a book to a movie?"

Scholar Sabina Neugebauer loves the research process too. She said:

> Uncovering patterns and making meaning of them has always been something invigorating and truly pleasurable. I get really curious about things and hooked on solving them. I become laser focused. I love what I do and become immersed in it … All my projects have sent me down roads connected by the same kernel of curiosity and the same passion for promoting educational equity.[8]

Scholar Rebecca Collie concurred, saying: "I truly value and love what I do. Therefore, it is not difficult to work hard and get things done."[9]

Scholar Patricia Alexander has followed her bliss. Alexander said:

I wanted to learn all I could about reading and learning – what goes on inside the head of students – and all those important constructs like strategies or interests intricately tied to reading and learning. I have always wanted to understand *why*. Such why questions continually pop into my head and will never be quieted. Seeking answers to those why questions are what drive my research and teaching – it is that questioning behavior and my passion for students' academic development that makes me an educational psychologist.[10]

Alexander believes that work and play can be one and credits her mentor, Ruth Garner, for showing her the seamlessness between work and play. Alexander spoke about a conference she attended with Garner: "We traveled all day, and at night we wrote manuscripts. Part of what I learned from her was this passion. You don't have to play and put work aside, it can be built into your life."[11] "Career is not just something that I do – it is who I am."[12]

Scholar Mareike Kunter nicely summed up the passion scholars feel for their work. She said: "I think academia is the most rewarding job you can have. You can do so many different things. It's intellectually inspiring, and you've got high flexibility and autonomy. So, if you're interested in pursuing an academic career, go for it!"[13]

Because if you don't, it might be tantamount to yanking out the soul. Follow your bliss.

References

You Can Do It

1 Disney, W. *BrainyQuote*. www.brainyquote.com/topics/you-can-do-it-quotes.

Wow! Look What's Possible

1 Reilly, R. (2005, June 20). Strongest dad in the world. *Sports Illustrated*, p. 88. https://vault.si.com/vault/2005/06/20/strongest-dad-in-the-world.
2 Kiewra, K. A., & Creswell, J. W. (2000). Conversations with three highly productive educational psychologists: Richard Anderson, Richard Mayer, and Michael Pressley. *Educational Psychology Review*, *12*, 135–161.
3 Patterson-Hazley, M., & Kiewra, K. A. (2013). Conversations with four highly productive educational psychologists: Patricia Alexander, Richard

Mayer, Dale Schunk, and Barry Zimmerman. *Educational Psychology Review*, *25*, 19–45.
4 Kiewra, K. A., Walsh, J., & Labenz, C. (2023). Moving beyond fulfillment: Wisdom years stories of passion, perseverance, and productivity. *Educational Psychology Review*, *35*, Article 20.
5 Bloom, B. (1985). *Developing talent in young people*. New York: Ballantine Books.

Recognize That Talent Is Made, Not Born

1 Gardner, H. (1993). *Creating minds*. New York: Basic Books (p. 140).
2 Evans, P. (2006). *It's not about the tapas*. New York: Bantam Dell (p. 127).
3 Gardner, H. (1997). *Extraordinary minds*. New York: Basic Books.
4 Gardner, H. (1993). *Creating minds*. New York: Basic Books.
5 Brady, F. (1965). *Bobby Fischer: Profile of a prodigy*. New York: Dover Publications.
6 Hayes, J. R. (1985). Three problems in teaching general skills. In S. F. Chapman, J. W. Segal, & R. Glaser (eds.), *Thinking and learning skills*, Vol. 2. *Research and open questions* (pp. 391–405). Hillsdale, NJ: Erlbaum.

Talent Can Spring Most Anywhere

1 Patterson-Hazley, M., & Kiewra, K. A. (2013). Conversations with four highly productive educational psychologists: Patricia Alexander, Richard Mayer, Dale Schunk, and Barry Zimmerman. *Educational Psychology Review*, *25*, 19–45.
2 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018.
3 Bembenutty, H. (2022). *Contemporary pioneers in teaching and learning*, Vol. 2. Charlotte, NC: Information Age Publishing, Inc.
4 Prinz, A., Zeeb, H., Flanigan, A., Renkl, A., & Kiewra, K. A. (2020). Conversations with five highly successful female educational psychologists: Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. *Educational Psychology Review*, *33*, 763–795 (p. 776).
5 Ibid.
6 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018 (p. 1990).

Believe You Can: Build a Growth Mindset

1 Dweck, C. S. (2008). *Mindset*. New York: Ballantine Books.
2 IQ isn't set in stone, suggests study that finds big jumps, dips in teens (October 19, 2011). *NPR*. www.npr.org/sections/health-shots/2011/10/20/141511314/iq-isnt-set-in-stone-suggests-study-that-finds-big-jumps-dips-in-teens.
3 Maguire, E. A., Gadian, D. G., Johnsrude, C. D., et al. (2000). Navigation-related structural change in the hippocampus of taxi drivers. *Proceedings of the National Academy of Sciences USA*, *97*, 4398–4403.
4 Waitzkin, J. (2007). *The art of learning*. New York: Free Press.
5 Dweck, C. S. (2008). *Mindset*. New York: Ballantine Books.
6 Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, *69*, 797–811.
7 Dweck, C. S. (2008). *Mindset*. New York: Ballantine Books.
8 Ibid., p. 278.
9 Bloom, B. (1985). *Developing talent in young people*. New York: Ballantine Books.

Take the Leap. It's Not as Far as It Looks

1 Kiewra, K. A. (2019). *Nurturing children's talents: A guide for parents*. Santa Barbara, CA: Praeger (p. x).
2 Kiewra, K. A., & Creswell, J. W. (2000). Conversations with three highly productive educational psychologists: Richard Anderson, Richard Mayer, and Michael Pressley. *Educational Psychology Review*, *12*, 135–161 (p. 154).
3 Ibid.
4 *Goodreads*. www.goodreads.com/quotes/11507-every-artist-was-first-an-amateur.

It's Never Too Early to Be Productive

1 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018.

It's Never Too Late to Be Productive

1 Kiewra, K. A., Walsh, J., & Labenz, C. (2023). Moving beyond fulfillment: Wisdom years stories of passion, perseverance, and productivity. *Educational Psychology Review*, *35*, Article 20.

2 Ibid., p. 7.
3 Ibid., pp. 7–8.
4 Ibid., p. 8.
5 Ibid., p. 9.
6 Ibid.
7 Ibid.
8 Ibid.
9 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018 (p. 2002).

Don't Aim to Be a Productive Scholar

1 Mahfouz, N. *BrainyQuote*. www.brainyquote.com/quotes/mahatma_gandhi_134719.
2 Patterson-Hazley, M., & Kiewra, K. A. (2013). Conversations with four highly productive educational psychologists: Patricia Alexander, Richard Mayer, Dale Schunk, and Barry Zimmerman. *Educational Psychology Review*, *25*, 19–45 (p. 39).
3 Prinz, A., Zeeb, H., Flanigan, A., Renkl, A., & Kiewra, K. A. (2020). Conversations with five highly successful female educational psychologists: Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. *Educational Psychology Review*, *33*, 763–795 (p. 783).
4 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018 (p. 1992).
5 Ibid., p. 2015.
6 Prinz, A., Zeeb, H., Flanigan, A., Renkl, A., & Kiewra, K. A. (2020). Conversations with five highly successful female educational psychologists: Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. *Educational Psychology Review*, *33*, 763–795 (p. 783).
7 Kiewra, K. A., Hasnin, S., Soundy, J., Premkumar, P. K., & Labenz, C. (2023). Graduate student award winners in educational psychology: What made them successful? *Educational Psychology Review*, *35*, Article 90.

Be Productive Because You Love It: Follow Your Bliss

1 Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. New York: HarperCollins (p. 107).
2 Kiewra, K. A. (2019). *Nurturing children's talents: A guide for parents*. Santa Barbara, CA: Praeger (p. 20).

3 Twain, M. *Goodreads*. www.goodreads.com/quotes/646569-find-a-job-you-enjoy-doing-and-you-will-never.
4 Kiewra, K. A., & Kauffman, D. (2023). John Glover: A long overdue account of his productive scholarship methods. *Educational Psychology Review*, *35*, Article 56.
5 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018 (p. 2002).
6 Ibid., p. 2004.
7 Kiewra, K. A., & Creswell, J. W. (2000). Conversations with three highly productive educational psychologists: Richard Anderson, Richard Mayer, and Michael Pressley. *Educational Psychology Review*, *12*, 135–161 (p. 146).
8 Kiewra, K. A., Luo, L., & Flanigan, A. (2021). Educational psychology early career award winners: How did they do it? *Educational Psychology Review*, *33*, 1981–2018 (p. 1997).
9 Ibid., p. 2000.
10 Bembenutty, H. (2022). *Contemporary pioneers in teaching and learning*, Vol. 2. Charlotte, NC: Information Age Publishing, Inc. (p. 89).
11 Prinz, A., Zeeb, H., Flanigan, A., Renkl, A., & Kiewra, K. A. (2020). Conversations with five highly successful female educational psychologists: Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. *Educational Psychology Review*, *33*, 763–795 (p. 775).
12 Bembenutty, H. (2022). *Contemporary pioneers in teaching and learning*, Vol. 2. Charlotte, NC: Information Age Publishing, Inc. (p. 100).
13 Prinz, A., Zeeb, H., Flanigan, A., Renkl, A., & Kiewra, K. A. (2020). Conversations with five highly successful female educational psychologists: Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. *Educational Psychology Review*, *33*, 763–795 (p. 783).