Introduction

Iron sharpens iron; scholar, the scholar.

William Drummond[1]

Publish or perish. Sure, there's that. Newly minted assistant professors understand they must publish, and likely publish a lot, to attain tenure. Graduate students understand this too, as they sow publication seeds well before graduation, hoping for an early harvest and fertile job prospects. But employment yearnings and tenure trepidation are not the only publication starters. Many scholars, green and seasoned alike, relish the scientific process – raising new and important questions, designing solution-seeking studies, and offering game-changing implications for practitioners. A few scholars are particularly good at this. They break new ground and do it again and again. Their names and ideas are ubiquitous in scientific journals and scholarly books. They scoff at publish or perish. To them, it's publish and flourish. But, how? How are they so productive? What separates them from the rest?

Meet the Productive Scholars

Colleagues and I sought to find out how expert scholars are so productive by investigating the best of the best in my own field of educational psychology. Beginning in 2000, I coauthored the first of seven qualitative studies investigating highly productive educational psychologists to understand their backgrounds and methods and to pass along advice to emerging and seasoned scholars alike. That first study[1] investigated the top three scholars emerging from a survey of educational psychologists. They were Richard Anderson, Richard Mayer, and Michael Pressley. The next study[2] identified and investigated the four leading educational psychology scholars at the time: Patricia Alexander, Richard Mayer, Dale Schunk, and Barry Zimmerman.

The third study[3] investigated a highly productive cohort of German educational psychologists associated with Ludwig Maximillian University of Munich: Heinz Mandl, Hans Gruber, Alexander Renkl, and Frank Fischer. The fourth study[4] investigated top female educational psychologists in Europe and the United States. They were Patricia Alexander, Carol Dweck, Jacquelynne Eccles, Mareike Kunter, and Tamara van Gog. The fifth study[5] focused on early-career award-winning scholars, recognized by the American Psychological Association and the American Educational Research Association (AERA), to unearth the roots of early success. Those scholars were Rebecca Collie, Logan Fiorella, Doug Lombardi, Sabina Neugebauer, Erika Patall, and Ming-Te Wang. The sixth study[6] explored successful graduate student scholars, namely four recent Graduate Research Excellence Award winners from AERA Division C, to understand which graduate school factors align with success. They were Hyewon Lee, Hyun Ji Lee, Carly Robinson, and Sirui Wan. A seventh study[7] focused on a single productive scholar, John Glover, by interviewing three of his former collaborators. I also conducted unpublished interviews with two AERA award-winning diversity and inclusion psychologists: Carol D. Lee and Zeus Leonardo. Finally, I also draw from interviews that Hefer Bembenutty conducted for his book on contemporary pioneers in teaching and learning.[8] Some of those pioneers I had interviewed previously (Eccles, Alexander, and Zimmerman) and others I had not (David Berliner, James Banks, Karen Harris, John Hattie, Marilla Svinicki, Brian Coppola, and Ivar Braten). A thumbnail sketch for each of these thirty-four productive scholars appears in the Appendix. This sketch serves as a source you can return to throughout the book to remember who's who.

For this book, I also draw from my research on talent development,[9] which includes (a) interviews with dozens of national and world-class experts or Olympic medalists, their parents, and coaches spanning numerous domains such as chess, baton twirling, rodeo, music, photography, swimming, fencing, spelling, and figure skating, to name a few, and (b) interviews with those still producing creative works in their wisdom years,[10] such as Rich Mayer (again), PBS news anchor Judy Woodruff, and the Wander Women who quit their jobs, sold their homes, and set off exploring the American wilderness. Finally, I draw from my own forty-year academic career as a six-time book author, top 2 percent most-cited researcher worldwide,[11] journal editor of

Educational Psychology Review, creator of the SOAR (Select, Organize, Associate, Regulate) Teaching and Learning Method,[12] chair of my college's promotion and tenure committee, and Academic Success Director at the University of Nebraska to offer a bit of personal scholarly advice.

This wide-ranging collection of talent stories and advice you're about to read transcends domains. What I learned investigating productive scholars in educational psychology likely holds for most productive scholars from astronomy to zoology. Moreover, *Be a More Productive Scholar* uncovers the pathways to scholarly success for emerging scholars at the graduate school or assistant professor trailhead, seasoned scholars well on the way, and those nearing their wisdom years finish. The book lends a hand to all travelers, including those from underrepresented groups encountering structural barriers to those seemingly born into their talent domains. Pathways as far-ranging as professional training, mentorship, work habits, research management, writing strategies, life routines, collaboration, support networks, failure framing, and many others are revealed using data, stories, advice, and quotations culled from my investigations of productive scholars, other talent-related work, and my personal journey.

Because each section in the book is meant to be self-standing and a quick go-to resource for readers seeking advice about a particular topic, some ideas, stories, and quotations appear more than once throughout the book because they are germane to more than one topic. Please think of such repetition as opportunities for increased learning, knowing that "No man ever steps in the same river twice, for it's not the same river and he's not the same man."[13]

Seek the Hidden Curriculum. Look at That. It's All Right Here

Rebecca Collie credits much of her scholarly success to the mentors who taught her the "hidden curriculum in academia," the insider knowledge that helped her avoid dead ends and saved her "years-worth of wasted time."[1] One bit of insider information Collie received dealt with how to interpret and react to journal reviewer feedback following a manuscript submission. In this case, she learned that a revise-and-resubmit decision with massive comments was actually a positive outcome. Her foot was in the door, and it was time to get busy making revisions and push through.

Collie pointed out that many assistant professors are not well versed on the workings of academia and have to "navigate the hidden curriculum on your own." Collie said, "You might wonder, 'Do I do it this way or that way? I guess I have to try it this way.' Then if it doesn't work, you have to go back and do it the other way."[2]

Collie's right. Graduate school mentors and senior colleagues might not have time to direct you, or falsely believe that you already know the ropes, leaving you to trial-and-error it. Or they may dispense unnecessary and ridiculous advice as a teaching supervisor did for me as I was about to teach my first college class as a teaching assistant. The supervisor said, "Don't be up there itchin' and a-scratchin' like some damn baseball player." Okay . . .

That's the purpose of this book. To reveal the hidden curriculum, the insider information needed to succeed as an academic scholar. Things your doctoral advisor and senior colleagues never told you or might not even know. And I promise, all the advice is much better than refraining from itchin' and a-scratchin'.

References

Introduction

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Meet the Productive Scholars

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2 Ibid.

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

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.