

for the things you are actually doing. (If I'm enjoying my routine, I write it down, for inspiration in times where I feel less productive.) Third, after too long a working day, your productivity will be down the next day—so it's really not more efficient to work late (whatever "late" means for you).

Emails

Email is such a big thing that it deserves its own section. Writing emails is not a goal in itself, and you cannot plan when someone will write to you. Emails come in continuously and the more you write, the more you receive. In other words, you will never be done with email, but can only hope to stay on top of it, without spending too much time on it.

I personally don't allocate time for writing emails, although I typically start and end the day with it. There will always be a few minutes between meetings, or when I'm taking a short break from thinking about math, in which I can write some quick emails. To reduce stress, I do not receive work emails on my phone and have turned off most notifications, so that I only see emails when I actively choose to do so. But strangely, it is less stressful for me to check my emails regularly, even outside of working hours, so that I know they are not secretly piling up.

COVID Craziiness

All of the above applies at any time. But we live in exceptional times, and this is reflected in how we manage our time. You may be mourning—if not losing someone or something specific, then at least a sense of normality. You may be very distracted by everything that is going on.

I think we should accept that we may have less energy or mental bandwidth than usual, and simply plan to do less. Now that everything is all online, a lot of idle time has been cut out of our schedules, but we need this time to not overexhaust ourselves rather than squeezing in yet more work. It helps me to work standing some of the time, to keep my body active. I also balance my extra screentime with completely different things (socializing, sports, music, reading).

Listen to your body and cut yourself some slack. If you are working too much, "because there is nothing else to do," maybe the solution is to plan more non-work things that you then commit to. (I have put "sitting on the couch" on daily to-do lists, to make sure it actually happens.) If you feel like you are trying and failing to do something, take a break and do something else. While going on a nice walk, you may just suddenly have a great idea. If not, then at least you will have taken a nice walk.

Credits

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Valentijn Karemaker

How I Learned to Research Like the Incredible Hulk (or I'm Always Angry)

Robert W. Vallin

In the early 1990s, jobs were difficult to find, and my job search was torturous. I answered more than 100 ads, went to the 1992 Joint Mathematics Meetings (that year in Baltimore, MD) as a freshly-minted PhD, and participated in the cattle call known as the Employment Center. And then I waited, and waited, and waited. My first on-campus interview was in April. But the fates were kinder to me than others. In August, I was bright-eyed, bushy-tailed, and starting a tenure-track job. I landed at what seemed like a good, if not great, school for me—a mid-level state school with a four-four teaching load and "professional development" rather than research expectations.

I was okay with the teaching load, despite its heaviness. Service would work out—I had been involved in lots of service as an undergraduate and graduate student. But there was the third part. I did not have to do research *per se*, but I *wanted* to do it. Since the first time I figured something out that had never been figured out before and then saw my name in print, I wanted to do it again. I wanted to be like my thesis advisor and the bigwigs he knew. But how? Yes, I had written a thesis and published it as two papers. However, my results had come from meeting with my thesis advisor, having him suggest the path I should look at for the next week, and seeing him the following Monday. Lather, rinse, and repeat. Now I was on my own. To make a long story short, I decided I wanted to move away from my thesis (but still do research in real analysis), and so I started looking through journals for something that interested me. What I did not realize was that my thesis was not just guided research, but pretty heavily-guided research. Working on my own was going to be hard.

It's been long enough that I don't remember the topic, but I do remember trying to find some results and thinking I had some small, but clever ideas. In my naive state, I thought that even a small thing, whether a positive proof or a negative example, would be interesting and publishable. I was one of the first in my department to get a desktop computer and one of only two who knew LaTeX and could typeset mathematics to look nice. So, I typed up my results

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and sent them to my old advisor so that I could get some nice kudos that would keep me going. A quick reply was not forthcoming. Finally, he wrote back, and the subject line said it all: "Ugh." I'll skip the sordid details. I thought I had results. He said they were obvious, not interesting, and not research. But professional development at my institution was the name of the game, and I thought about taking myself in lots of other directions, giving up research, and sticking with things I knew I could do. So, what was my next move? I moped. Yeah, I felt sorry for myself. Then I got better. Then I got mad.

And now I had a goal to focus on. An angry goal, but still a goal: to show to my advisor (and others) that I could get something done.

I started by reading lots of journal articles. Specifically, I was looking for articles with open problems in them. This way, I could get my hands on some problems rather than determine my own, and I could start to learn what are good questions. I got some decent results about the metric space of metrics. Boom! Paper. I realized there's no harm in asking others, so at a meeting, I asked an older friend if he had anything we could work on together. He did, and that was another paper. Boom, again! Then, I lucked out. I found a paper on metric-preserving functions that had an open question, and one of the authors was at a school about an hour away from me. I emailed to ask if the question was still open, and it was. It took me over a year, but I answered it with a really nice, deep counterexample.

Getting to know this person gave me the opportunity to (a) go to his school to both attend and present at their mathematics colloquium, (b) have someone to talk with, and (c) have a place to go to when I took a sabbatical. Let me point out that this took years. It was a marathon, not a foot race. It's ongoing today.

So, I learned how to ask and answer questions. Sometimes, I'm the only one interested in them. I give talks, and nobody has anything to say, but that's OK. I think they're good. I've moved on from my first tenure-track job, but for the decades I was there, I averaged a research paper a year and have branched out into many topics (analysis, topology, number theory, recreational mathematics, etc.). I have also written expository and pedagogical papers and a book. My perseverance paid off. I'm sure that yours will, too.



Robert W. Vallin

Credits

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