Time for Math

E. E. Eischen *

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How should you allocate your time? Within the context of a mathematical career, we face particular challenges in deciding how to spend our time effectively. The steps of a research project cannot all be mapped to a prescribed timeline. We often have a large amount of autonomy and no externally imposed structure for doing research. Expectations for service and some aspects of teaching can seem nebulous, especially when feedback is scant.

Early in your career, it can feel like maybe once you get past the next hurdle, or the one after that, somehow you will have more time. In my experience, the opposite is true. The demands on my time have increased as my career has progressed.

There is no "one weird trick" for magically creating time for everything you want and need to do. It can be worthwhile, though, to learn what has helped others find time for their priorities. You can then experiment with adapting some of their methods to your situation.

Here are three strategies that have helped me.

1. **Tracking time.** Tracking can help you gain clarity about how you are spending your time. In turn, this can help you discover how much time is enough to schedule for various projects, establish boundaries, and know when to decline new requests. It can also help you hold yourself accountable. Strikingly often, when I have thought I was "stuck" on research, the cause has turned out to be not a mathematical obstacle but rather that I had been concentrating my time elsewhere.

One basic approach is to spend a week recording how you spent your time in half hour increments. This can serve as a starting point for helping you understand where your time has gone. You can create a spreadsheet for this with a column for each day of the week and a row for each half hour increment from midnight to 11:59 pm, or you can find templates online.

Another approach is to keep track of how much time you spend on specific tasks over a long duration. For complex endeavors, like research projects that go on for years, this can help you discover how much time you need. You might know how you spent your time over the course of a week, but do you know how much time you put into a particular paper that you completed over the course of several years? Of course, projects differ in how much time they require, but this can help you identify trends. Various apps, such as `kanbanflow` (which I use), are designed for this purpose.

2. **Making an appropriate schedule.** Scheduling specific times for various tasks can help align your time with your priorities. If you have tracked your time, you have a sense of how much time you need for different activities. An appropriate schedule takes this into account.

Although it can be tempting to fill every moment, it is crucial to leave open space. Likewise, it is important to allow enough space so that you can be flexible and break the schedule. Breakthroughs often happen in the space between scheduled blocks of time or when you were "supposed" to be doing something else.

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*E. E. Eischen is a Professor of Mathematics at the University Oregon. Her email address is eeischen@uoregon.edu.

Mapping your activities onto a schedule can help you see how they can all fit (or see that they do not fit and that you need to cut back). If you have trouble sticking to the schedule, you can build in accountability structures. Some people find that weekly meetings with collaborators help them stay on track. You can also find accountability in a writing circle, a group of people who meet weekly to check in about their individual writing goals and then work on their own writing projects for a few hours.

3. **Keeping an ideas list.** It takes only a moment for an idea for a project to pop into your head, but you might need years to carry it out. You might not have any time available when the idea arises. You might also need collaborators and resources that are not readily available. An ideas list is a place you record your ideas, just for yourself. When you have thoughts about how to build on some of your ideas, you can jot notes in your ideas list in just a few minutes. If you have an idea for collaborators or identify ways to overcome obstacles, add to your notes. Over time, some of the entries might begin to take shape and can become the starting point for new projects, which you can begin after you complete prior commitments.

   An ideas list can be a useful for recording not just ideas for research projects but also other endeavors. A museum exhibit I organized in 2021 started out on my ideas list in 2014 and gradually grew into a part of a grant proposal that led to funding for the project. Other outreach projects, such as a collaboration involving elements of improvisational theater, likewise started out as rudimentary notes in my ideas list and percolated for years. I would never have had a continuous block of time in which to carry these out all at once. Doing small amounts sporadically, though, made it possible for these ideas to morph gradually into successful projects years later.

starting point time and again. I hope you find them helpful, too.

These three strategies are not rules. I do not always follow them. They have, however, provided a helpful