

Research Minute

Getting Started in Research

Issue 1

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In my experience, a research project begins with a cloud of ideas, questions, and/or inspiration. How does one shape that cloud into a solid strategy for gathering information and answering a question? Below are 9 steps for getting started. In real life, they overlap each other in time and space.

Step 1. Get Curious. Ask questions, consider clinical conundrums, follow a general interest, indulge in inspiration, or attach yourself to someone doing interesting work.

Step 2. Identify an Interest. Maybe it's an experience you had (witnessing your uncle's illness) or a passion (wilderness medicine), or something curious (why did patient A react to our treatment that way?)

Step 3. Be Patient. It may take awhile for the idea-cloud to stop swirling and take shape. Also, be patient with research processes: IRB applications, grant reviews, journal editors are not fast.

Step 4. Find a Mentor. Maybe you can figure this out on your own, but ...

IT. IS. SO. MUCH. HARDER!

Ask someone more senior to guide you. Offer to help them with their work. Learn from them, then apply these lessons to your own research questions.



Step 5. READ!

Reading and Finding a Mentor are the 2 most important things you can do!

Why read? All research is built on the shoulders of previous researchers. Read research papers in your area of interest. **Read A LOT!** Know your topic well.

Why read? When you write about research, you must cite other researchers' work. You must know the literature.

Why read? Other researchers may have methods or measurements that you can borrow. Pay attention to how they write about their rationale and methods.

Befriend your librarian!

Step 6. Find a Focus. Focusing in one area helps to keep your project manageable and to establish your expertise for future work. The focus does not have to be a disease; it could be QI, health services, a research methodology or a population.

Step 7. Start Small. Successful researchers start with small pilot studies, then use those findings to justify going bigger. Start with unfunded work, then apply for a small local grant, say \$500-\$5000, to take it to the next level. Those findings can leverage a \$50,000 or \$100,000 project. Larger projects will pose new questions that lead to future work and more \$\$ support.

Step 8. Don't Sweat the Statistics. Find people! Your mentor may guide you. Identify local resources for statistics. If not in your department, reach out to other departments or go to a research conference. Perhaps a graduate student can help you. Use your grant dollars to hire a statistician.

DO involve a statistically-minded person when planning in your project so they can assure that your data are statistics-friendly when you finish.

Alternatively, consider non-statistical research methods. Qualitative research is all about summarizing and making sense of words or text, rather than numbers. Data collection methods include interviews, observations, focus groups, studying documents, etc.

Step 9. Plan a Project. Consider these things: **A.** From the literature: Why is this issue important? What is already known? **B.** Write a clear Study Aim about the concepts you want to address. **C.** Measurement: How will you define or measure these concepts? **D.** Subjects: What are the inclusion and exclusion criteria for subjects? **E.** Planning an intervention? Describe it. **F.** Procedure: Who will gather data? How? When? **G.** Data analysis. What statistics will you use? How will you know if you have met the study aim?