Want to have a highly productive and congenial research team? Joshua Hook, Don Davis, and Daryl Van Tongeren have a deep friendship, and each of them has a research team that seems to publish something every Wednesday based on their individual and collaborative grants. They lead you through procedures that are efficient yet relationally warm. Putting this book into action will repay its reading many times over.

—Everett L. Worthington, Jr., PhD, Commonwealth Professor Emeritus, Virginia Commonwealth University, Richmond, VA

Highly recommended for anyone entering, or even considering, graduate study in psychology. Loaded with specific and practical suggestions, this book will help students navigate a challenging and sometimes confusing environment, especially as it pertains to conducting research. Unlike any other book (why hasn't anyone else thought of writing it?), this one should be kept within arm's reach.

—Peter C. Hill, PhD, Rosemead School of Psychology, Biola University, La Mirada, CA

Three creative, prolific scholars gently offer their hard-earned practical wisdom for becoming productive—or even creative and prolific. For motivated but uncertain grad students and new academics, *The Complete Researcher* is a gold mine of generative mentoring and useful advice.

—David G. Myers, PhD, Hope College, Holland, MI; coauthor, *Psychology, 14th Edition* and *Social Psychology, 14th Edition*

Drawing from several decades of collaboration between three highly accomplished and respected researchers, *The Complete Researcher* gives a compelling inside scoop on what really makes research tick: value-driven projects, meaningful and effective relationships, consistent attention to self-care and work habits, and the ability to weather times of adversity. The authors do a superb job describing the nuts and bolts of project design, writing, mentoring, and the transition into an academic career. This book will be a fantastic resource for faculty, graduate students, and undergraduates alike.

—Julie J. Exline, PhD, Professor, Department of Psychological Sciences, Case Western Reserve University, Cleveland, OH

The Complete Researcher: A Practical Guide for Graduate Students and Early Career Professionals is a must-read for any graduate student and *their mentors*. It is practical, personal, and aspirational. The authors address the existential dilemma of why to do research, while providing direct solutions to move research projects forward.

—Jesse Owen, PhD, Licensed Psychologist; Professor, Department of Counseling Psychology, University of Denver, Denver, CO; Editor, *Psychotherapy*

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INTRODUCTION

How This Book Can Help Build Research and Leadership Skills

Learning how to do research is challenging. The purpose of this book is to help you develop the essential skills necessary to become an effective—and complete—researcher. The research requirements of a doctoral program (often a thesis and a dissertation) demand planning and persistence over a long period. Even students aiming for academic careers may feel nervous about the process because they know delays in this area are the main reason people may not graduate on time. So, students often feel daunted by the scope of a research project. They may have volunteered in a lab as an undergraduate student, perhaps doing data entry or other novice tasks, but now, starting a doctoral program, they are the lead scientist on two projects that will take years of dedicated effort. It can feel overwhelming.

Independent research is a different sort of challenge than anything a graduate student has completed before. In college, most students work in "bursts." In other words, there might be an upcoming test or a project to complete, so students work hard to complete the task and then relax until pressure from a new task begins to mount. We have never seen anyone finish a dissertation this way. Even in a team environment, with lots of help and support, it still takes 1 to 2 years to complete each project. You simply

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cannot "cram" for a dissertation. Gaining research acumen is like training a set of endurance-related muscles. Skill and expertise build over time. A new kind of work strategy and level of discipline is needed to complete a strong research project.

Challenging goals require lots of support. Research is a team sport. You cannot develop into your full potential as a researcher if you are going at it alone. Working in teams allows us to share our strengths and skills, which makes the work stronger than what any one person could do alone. And it is much more fun to work in teams. When one person hits a barrier, someone else can help get things going again, which decreases discouragement.

The foundation of your "research team" is your relationship with your mentor. Accordingly, the quality of students' relationships with their mentors is often a major factor in their success in a doctoral program. Mentors help balance challenge with encouragement. If this relationship falters, progress can grind to a halt. We wrote this book with the mentoring relationship in mind.

Thus, the primary audience for this book is graduate students and early career professionals, who must complete their own independent research projects as a requirement of their graduate program or faculty position and also mentor others doing research. We hope the book will help mentors and students form productive relationships that feel mutually beneficial and rewarding.

Graduate students have a range of career goals. Some know they want to go into academic careers. Some know they want to become clinicians. Others want to go into industry. Many start their doctoral programs still undecided. We wrote this book for people with a broad range of career goals. Even for people who know they will only do the minimum research requirements to graduate, it is still beneficial to have a sense of the big picture and a clear vision of the purpose of research in your program and career.

We also tried to write this book in a way that would promote empathy and perspective-taking for the multiple roles that students and faculty have while engaging in research. Beginning faculty members are often in the difficult position of training new doctoral students when they have not received much education or guidance on how to do that. Much of what new faculty members learn about advising is from how their primary advisor mentored them, and they often either try to emulate that experience closely (if their mentor experience was positive) or do the opposite (if their mentor experience was negative). There is little formal training on research mentorship. Thus, the mentoring relationship requires patience and a persistent investment of energy and care.

The mentoring relationship has the potential to continue throughout your career. Over the years, we have developed helpful resources, including various

step-by-step guides for many of the steps of the research process and interviews with successful researchers on a wide range of topics. Also, we are constantly updating this material to stay current. If there is something you would like help on that is not covered in this book, send us an email, and we will try to come up with a resource for it. Research can be engaging and rewarding, but it is often a struggle. Our hope is this book can help you in your journey toward not just surviving the research process but thriving!

STRUCTURE OF THE BOOK

We have divided the book into three main sections. Part I is focused on principles. In this part, we focus on personal development and talk about personal attributes and habits that are important to develop if you are going to be a successful researcher. You can have the best step-by-step plan in the world, but if you cannot get yourself to sit down at your desk and work consistently, it will not matter much. Most graduate students want to rush ahead and focus on the details of completing their research projects, and we promise we will get there in the later sections of the book—but first, we have to lay some groundwork. Throughout Part I, we use the framework of developing expertise to guide our thinking and organization. What does it take to develop our skills in research and writing? In this first section, we walk through some of the most important character qualities to work on if you want to succeed at research, such as values, goals, habits, and dealing with adversity.

We start here because the most important asset you bring to the table is you! Investing in yourself as a researcher will pay huge dividends down the road. You can know all the tips and tricks about how to do research, but if you do not have some foundational personal attributes in place, you will struggle to be successful. These qualities may seem overly basic, but trust us, they are important. We have seen incredibly bright students fail as researchers because they have not taken the time and energy to develop these attributes and habits. They are foundational.

After covering some essential information on personal development, Part II gets more into the details. In this section, we walk through the key steps for completing a research project from start to finish. We talk about things like choosing a research topic, completing a literature review, collecting data, analyzing data, and writing up your results. It is important to note that this book is not specifically about the nitty-gritty of research methods—for example, how to conduct various specialized statistical analyses. Instead, it is more about the big picture of what it takes to do research. The material we cover

can be applied to any independent research project, but because many of our readers will be graduate students, we also discuss the key milestones of the thesis or dissertation process specifically, such as successfully navigating the dissertation proposal meeting. Furthermore, we discuss navigating some of the "products" of a research project, such as presenting your research at a conference and preparing your research for publication. We want to point out ahead of time that there is not one "right" way to organize a research project. Many different paths lead to the same destination. We share what has worked for us and our students. We expect you can adapt this plan to find something that will work well for you and your mentor. Also, if you are a mentor and do not have a clear step-by-step approach to help your students complete their independent research projects, this framework can be adjusted to fit your needs.

After walking through the research process from start to finish, Part III is focused on developing your research program and transitioning from graduate student to professional. For many of our readers who want research to be part of their career moving forward, it is not enough to know how to complete a single research project (although this is important). Most academic careers require scholars to develop a programmatic research agenda, which is unified by an overarching focus, comprising smaller projects making incremental progress toward the researcher's broader goal. They also need to understand concepts such as leadership and collaboration, making the transition from graduate student to professional, and engaging in different kinds of relationships such as mentoring and team building. This section is full of practical advice we have picked up along the way from both our mentors and personal experience.

Throughout this book, we have tried to keep the all-important relationship between graduate student and mentor in mind. A big part of one's success and development as a researcher has to do with one's relationship with their mentor and other students. As most of us know, however, mentoring relationships can be tricky. Mentors and students can have different expectations, goals, working styles, and communication styles. As in any relationship, it is easy for misunderstandings to develop, and when these misunderstandings are not addressed effectively, the relationship can deteriorate. So, throughout this book, we give suggestions for navigating the material with one's mentor. Specifically, at the end of each chapter, there is a section labeled Graduate Mentor Corner and Undergraduate Mentor Corner. Each section focuses on specific considerations of the current topic within the context of mentoring graduate students and undergraduate students. If you are a mentor reading this book, these sections will also give ideas for how to bring up and discuss various important topics with your students.

Although much of the framing of this book is targeted toward graduate students and their mentors, we are aware that an increasing number of undergraduate students are hoping to get involved in independent research as competition for doctoral programs continues to increase. The best way to get engaged in research is to seek mentoring relationships that approximate what occurs within doctoral training. In fact, many departments provide opportunities for undergraduate students to get involved in formal research experiences. Thus, we also provide helpful information on how to adapt the principles in this book to the undergraduate research setting. Finally, in the appendix, we have included sample timelines for completing the independent research project (e.g., thesis or dissertation) in graduate school.

MOVING FORWARD

At the end of each chapter, a Moving Forward section wraps up the material from the current chapter and helps transition the reader to the next one. Reading this book is the first step toward a larger commitment to improving your research skills. We are glad you have decided to commit to this goal (even if someone said you had to read this book). Research can be meaningful and rewarding. You can discover things that are new to science and help people flourish. However, as rewarding as research can be, we also want to start this book with an honest look at the challenge. At least for a while, it may seem like everyone is speaking a different language you will never be able to understand. Getting to the point where you feel competent as a researcher can feel so far away. Sometimes it might feel easier to quit and do something different with your life. Wherever you are in your research process, you are not alone. There are plenty of people who have faced similar struggles and have overcome them—with help. We hope this book can be one of your "helpers" as you move forward in your research journey.

CHECKING IN

Periodically throughout the different chapters of the book, there is space for you to check in and respond to discussion questions. If you are working through the material in this book with someone else, such as a classmate or mentor, or even if you are using this as a textbook for a class, this would be a great time to have a discussion about the material you are reading. Again,

research is best done in the context of a supportive environment, so it can be helpful to share your reactions to the material and hear about what others are thinking. You might hear something about another person's experience that will help you in your own research journey. Consider the following prompts for discussion: Where are you right now in your research journey? What is one thing you hope to gain from reading this book? What is your biggest challenge or struggle right now in your research process?