PROFESSOR LAWSON'S LAB MANUAL

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Last updated: September 2024

ABOUT THIS MANUAL ----------

I'm thrilled to have the opportunity to work with undergraduate students in my research lab at Rhodes College. This document is designed to give students an idea of the structure of the lab and my expectations of research assistants (RA's). These guidelines are designed to enhance communication and transparency among lab members and are not exhaustive. Please reach out to me with any questions that arise after reading the manual. This is a living document and content can and should develop over time. If you feel like any of the information in here is inaccurate or should be modified, please let me know and we can collaboratively discuss edits.

LAB CULTURE ----------

Mission. As a lab, we strive to conduct methodologically rigorous, open, and inclusive research on personality and psychological adjustment. In doing so, we aim to foster well-being and promote the functioning of our participants, lab members, academic community, and society.

Norms. I believe lab norms need to be intentionally set and cultivated by all members to be truly effective. Early on in our working together, we will discuss lab norms and this document will be edited accordingly. Some norms I would like to see in our lab include:

- Acknowledgement that everyone has something to learn – no one person is good at everything or has all the skills to complete a group-worthy task
- Recognition that everyone has expertise to offer – every person has relevant strengths to bring to each group-worthy task
- Commitment that we each are present and aim to bring our best selves to the lab
- Appreciation for open science principles, including transparency, reproducibility, respectful critique, accountability, collaboration, and flexibility
- Assurance that we do our best to listen carefully to each other's ideas, suggestions, and feelings; in return, others will make us feel heard

Discussions. Much of the time we spend together as a lab will be in group discussions. To help foster effective and inclusive discussions, all lab members should work to embrace these four discussion principles.

1. Conciseness – being brief but comprehensive will help us make the most of our short time together and ensure that everybody can contribute to the discussion.

2. Listening – paying attention to other lab member's ideas with the intent of truly hearing them, rather than responding, will result in deeper and more productive conversations. Additionally, giving each other time to pause and think provides processing time and ensures nobody usurps the conversation or moves on too quickly.
3. Reflecting – reflecting on what has been said by other lab members validates the other person and confirms that we understood them correctly.
4. Everyone contributes – hearing from every group member leads to a diversity of ideas and greater confidence in consensus building. If speaking up comes naturally to you, try to give space for others to talk. If you tend to hang back in group conversations, challenge yourself to speak up.

These principles can help disrupt status-based hierarchies that can dominate group conversations by promoting self-reflection and equitable contributions (e.g., Is the same person always speaking first? Is somebody often being interrupted?). We are all constantly learning to be more effective communicators and sometimes we will say things, intentionally or not, that harm our other lab members. In these cases, it is important to recognize that both the impact and intention of our actions matter and we can work to remedy the situation in our community. We all make mistakes, and we should embrace them and learn from them. I will do my best to model this, and I hope you all help hold me, and yourselves, accountable.

Diversity, Inclusivity, and Positionality. Lab members represent vast diversity with respect to race/ethnicity, socioeconomic status, gender, sexuality, immigrant status, nationality, religion, disability, and worldview, among other dimensions of diversity. A major aspect of our research concerns how these dimensions of diversity, both independent and intersecting, relate to psychological phenomena. A strong appreciation for diversity among lab members will contribute to better understanding of our research topics and psychology more broadly. I am committed to fostering an equitable and inclusive learning environment for all lab members. In pursuit of this goal, it is up to all of us to embrace curiosity and willingness to critically reflect on our existing beliefs, practice compassion and patience with ourselves and others, and commit to changing behavior in the face of constructive feedback. Mistakes are part of the learning process; when we receive feedback, it's up to us to take ownership of the impact of our actions (regardless of intent) and work towards improvement in the future. Continuously reflecting on our positionality, and how it may influence our perspective on the research that we do, is an important aspect of being a good researcher. It is important for all lab members to recognize, understand, and respect how these positions and perspectives inform our work. If assistance is needed for DEI-related issues that cannot be comfortably handled within the lab, members can contact the Rhodes College Inclusive Excellence Leadership Council.

Maintaining Health and Well-Being. I care about promoting and encouraging a happy life for all lab members. This is a central purpose for many aspects of this lab manual (e.g., collaborative norms including how we can help each other, clear expectations to foster confidence and mitigate anxiety, time management to promote work-life balance). You may also find it helpful to receive support from various people and services during your time in the lab and afterwards. Connecting with me is one way to do this; I will do my best to help any student who comes to me with non-lab-related concerns. In these conversations, please keep in mind that, in my role as a faculty member, I am required to report any knowledge of potential

harassment, sexual misconduct, and discrimination on the basis of protected class to the Title IX coordinator. That means that I cannot keep information about sexual misconduct confidential from the college if you share that information with me, but the college has specific confidentiality and anti-retaliation protections in place. You can also or alternately choose to talk with a confidential resource (Rhodes Counseling Center, Student Health Services Staff) that will not share information that they learn about sexual misconduct. Additionally, Rhodes offers several resources to support student learning and well-being (check out the links below). Let me know if you would like help pursuing any of these resources.

- ADHD Coach
- Campus Safety
- Career Services
- Counseling Center
- Information and Technology Services
- International Student Services
- Language Learning Center
- Mathematical and Computational Reasoning Center
- Office of the Chaplain
- Office of Violence Prevention
- Student Accessibility Services
- Student Health Center
- Student Success
- Writing Center

LAB MEMBER INTERACTIONS ----------

Becoming a Lab Member. Rhodes students interested in joining the lab should reach out to me via email (lawsonk@rhodes.edu) to ask about opportunities and openings. All interested students will be asked to fill out a Google form communicating their interest in the lab, including previous research experience, skills they have and skills they hope to foster moving forward, and what area(s) of research they are interested in contributing to (see this website for a list of prior work conducted by Professor Lawson). Students whose forms convey strong interest will be asked to interview with me in person, after which a subset of applicants will invited to join the lab based on overall fit. Space permitting, new lab members will be welcomed into the lab at the beginning of the fall and spring semesters (August and January), not in the middle of semesters. Participation in the lab one semester does not guarantee participation in future semesters. Positions and research opportunities will differ across semesters and academic years.

Lab meetings. Our lab will hold weekly lab-wide meetings at a time that works for all lab members (schedules permitting). These meetings will typically happen in-person, but they may sometimes need to be held over Zoom. Lab meetings will typically last about an hour. Each lab meeting will have a different topic/theme/goal and RA's will be asked to help generate topics that are of interest to them to cover during these meetings. Tasks for lab meetings (e.g., readings, research tasks to complete) will be assigned at least one week in advance. All lab members are expected to come to meetings prepared to engage in that week's activity. If a situation arises that prevents you from attending a lab meeting, please let me know as soon as you can. Regularly missing lab meetings and/or failing to come to lab adequately prepared may result in dismissal as an RA and/or a lower grade (if you are receiving course credit).

Individual meetings. By default, we will not have regular one-on-one meetings. I will schedule one-on-one meetings with RA's as necessary. If you would like to schedule a meeting

with me, please sign up at my Calendly link or reach out via email. When setting a meeting, please include a description of what you would like to discuss. If you want to discuss specific materials (e.g., drafts of papers, applications) please submit them to me one week prior to the meeting to allow time for review.

Punctuality. Assuming there are not extenuating circumstances, it is important to be on time to all lab-related meetings and events. Punctuality demonstrates your respect that others have busy days, and everyone's time is valuable.

Communication. Lab members should communicate with me and each other via email. I will try to respond to emails within 24-48 hours, if possible, and it would be great if you could try to do the same. If you know you will be unavailable for a long period of time, please give me a heads up so I know that responses will take longer during that period.

Letters of recommendation. Some RA's may want to request a letter of recommendation and/or reference at some point when we are working together. In general, I am happy to serve as a reference for students when I feel like I have developed enough of a relationship where I can speak to their strengths and fit for a specific opportunity. If you would like to request a letter/reference, please reach out to me as soon as possible – ideally 1 month before the letter is due. This will give me enough time to gather the necessary information and submit the letter on time. There are some situations where I cannot write you a letter, so it is always best to check with me directly as soon as an opportunity arises rather than assume I can do it. When you reach out, I will ask you to fill out this Google form that includes information about the timeline, specific details about the opportunity, and relevant information you'd like me to include in my letter. Letters/references are almost always confidential, and you will not have the opportunity to read the letter before or after it is submitted.

LAB CONDUCT ----------

Ethics. Upholding research ethics includes protecting the rights and confidentiality of participants, maintaining academic integrity, and accurately reporting and communicating results. Lab members should complete Rhodes CITI Training before completing any research that involves collecting data from human subjects. As part of these research ethics, lab members must abide by all College requirements for working with human subjects. It is essential for all members of the lab to be respectful of our research subjects and to comply with all of the principles of informed consent. When doing human subjects research, we will collaboratively discuss the Institutional Review Board (IRB) protocol and our duties to uphold it.

Resolving Conflicts. Communication is key to minimizing conflicts. Please let me know if you have a conflict with another lab member and cannot reach an amicable resolution. If you would prefer to speak to someone else, you are welcome to talk with the Psychology Department Chair and/or others in the Rhodes community. In all conversations, if you wish for a conversation to remain anonymous, be sure to indicate that at the start of the conversation.

Confidentiality. Lab tasks will sometimes involve working with datasets and/or manuscripts that are confidential or have restricted access. Manuscripts may be drafts of papers that I am an author on or drafts from colleagues who have allowed me to share them with you but are not yet ready for public dissemination. As a general rule, do not share any internal lab documents or materials with non-lab members unless I have provided explicit permission to do so.

Dismissal. RA's are responsible for engaging with our lab's code of conduct. A significant breach of lab policy (including multiple unexcused absences from lab meetings) is grounds for dismissal as an RA. I expect this to be a very rare situation and will do my best to get in touch with students to discuss outstanding issues before dismissal is necessary.

LAB PROJECTS ----------

Lab Tasks. Over the course of the semester, RA's will be responsible for completing various lab tasks, including data entry, coding, finding relevant literature, reading and critiquing manuscript drafts, and/or running data analyses. I will do my best to be clear in assigning lab tasks and my expectations surrounding them (e.g., distribution of duties, timeline, examples when needed). Some of these lab tasks will be more monotonous and others will be more cognitively effortful. I will do my best to supplement rote tasks with more interesting lab meeting topics, when possible. If you have questions about lab tasks or feel like your skills are not being put to good use, please reach out to me.

Literature Review. There are multiple online databases to find relevant literature, including Google Scholar and the Rhodes College Library. Journal articles and book chapters should be read in full before being added to a literature review (reading only an Abstract is not sufficient).

Annotated References. Our lab will often annotate our references for manuscripts intended to be written up for publication. Annotated references include a concise description of why a source was cited and its importance and can also be a place to provide transparency about which works one has not fully read or examined. Please familiarize yourself with the importance of high-quality citing practices before diving into a literature review (Lawson, Murphy et al., 2023).

Finding Existing Data. Numerous open- and restricted-access datasets including measures of personality development, psychopathology, and other indicators of psychological adjustment are available online at the Personality Development Collaborative. In general, we will work to find existing data to answer our research questions before deciding to collect new data.

Writing. Writing is an important research skill that requires substantial practice to hone. Lab members should expect to edit their writing numerous times on their own before receiving additional feedback from other lab members. In addition to regular practice, I recommend these two book to hone your academic writing skills: *On Writing Well* by William Zinsser and *How to Write a Lot* by Paul J. Silvia.

Coding and Statistics. We will generally use R and RStudio to conduct statistical analyses in our lab. Lab members interested in developing their coding and statistics skills should refer to the below resources, all of which are free and available online.

Textbooks, Articles, Lectures, and Practice Activities:

- Getting Started with R When You Know Absolutely Nothing by Moin Syed
- learning statistics with R (comprehensive online textbook) by Danielle Navarro
- OSL Open Stats Lab: Teach Statistics Using Open Data from Psychological Science (practice activities, data sets, R scripts, and published articles for basic analyses) by Kevin McIntyre
- RYouWithMe (a series of online learning resources for using R including basic infrastructure, data cleaning, data visualization, and R Markdown) by R-Ladies Sydney
- R for Data Science (blog post including links to workshop talks on using dplyr, ggplot, and tidyverse packages) by Chris Vaccaro
- Introduction to R Programming Syllabus (lectures, homework assignments, keys, and templates for data management and data visualization in R) by Adam Kuczynski
- Data Management for Psychological Science: A Crowdsourced Syllabus (topics, resources, and activities to use to teach data preparation, cleaning, storage, and sharing) by Michaela DeBolt, Arianne Herrera-Bennett, Kailey Lawson, Sarah Schiavone, & Anna Wysocki
- Pownall, M., Azevedo, F., Aldoh, A., Elsherif, M., Vasilev, M., Pennington, C. R., Robertson, O., Tromp, M. V., Liu, M., Makel, M. C., Tonge, N., Moreau, D., Horry, R., Shaw, J., Tzavella, L., McGarrigle, R., Talbot, C., Parsons, S., & FORRT. (2021). Embedding open and reproducible science into teaching: A bank of lesson plans and resources. *Scholarship of Teaching and Learning in Psychology.*
- APS Resources for Learning to Work with R (collection of basic and advanced resources for learning R, many of the resources included on this document are also included on the APS site)
- An Introduction to R online textbook by Alex Douglas, Deon Roose, Francesca Mancini, Ana Couto, & David Lusseau
- R for Data Science online textbook (2nd edition) by Hadley Wickham, Mine Çetinkaya-Rundel, & Garrett Grolemund
- Making Statistics Make Sense by Jeremy Balka
- Answering Questions with Data by Matthew J.C. Crump, Danielle J. Navarro, & Jeffry Suzuki
- Introduction to Modern Statistics
- Crash Course Statistics YouTube videos
- Awesome Statistics GitHub repository

Self-Paced Courses:

- swirl (an interactive course for learning R that is conducted through the RStudio interface)
- Improving your Statistical Inferences (self-paced course, estimated 27 hours to complete) by Daniel Lakens
- Getting Started with R (self-paced course, estimated 3-5 hours to complete)

- Coursera on R Programming (self-paced course, estimated 55-60 hours to complete)
- Principles, Statistical, and Computational Tools for Reproducible Data Science (self-paced course, estimated 24-48 hours to complete) by Harvard University *Note: Harvard has numerous free online self-paced courses in data science and statistics.

Organization. Lab members are expected to practice good digital organization of files. All files should be version controlled so that earlier versions can be accessed as needed. Microsoft Word/Excel/PowerPoint files should be titled descriptively and should include the date the document was last worked on (e.g., LawsonLabManual_07.19.22). Including dates is preferred over other descriptions of the version (e.g., first, version 1, final). For important lab tasks, we will either use Google Drive or Box to secure files. Note that when Box is synced to your computer deleting files from the Box folders on your computer will permanently delete them from your Box account and any accounts they are shared with. Make sure your lab mates have appropriate permissions (e.g., viewer, editor, administrator) when sharing files via Box. Be extraordinarily careful before deleting files from Google Drive and Box.

Feedback. Feedback is an important part of research, and it goes in many directions, from mentor to mentee, mentee to mentor, and amongst peers. All feedback should be aimed at improvement; criticism should be directed toward the work, not the person. I am happy to hear constructive feedback about our working relationship and any additional support you need. For writing projects, I will typically provide written feedback via tracked changes on a document. Please read through all tracked changes before "accepting" them – this will help you learn what is being edited and why, which will improve your skills. When you share a new draft of the document with me, all *new* additions, deletions, and edits should be shown using track changes (i.e., please accept or reject all previous tracked changes and then begin editing again in tracked changes from there). When your lab mates are providing oral feedback during our in-person meetings, please make sure to take notes to reference later. Feel free to ask a fellow lab member to take notes for you instead if that will help you focus on your presentation.

Mistakes. Mistakes are an inevitable part of the learning and research process and are expected to occur. Although we often feel bad when we realize we make a mistake, they should never be hidden from lab members. Please inform me as soon as you notice a mistake that impacts any lab project we are working on. Then, we will work together to fix the mistake and implement procedures to avoid the same mistake happening in the future. To foster comfort discussing our mistakes and aim to mitigate their impact, we will follow the Error Tight framework.

Independence. I am always happy to provide feedback and respond to questions that come up while you are working on your lab tasks. You can ask for help via email; if I am on-campus in my office with the door open, you can also quickly stop by my office. In general, however, I expect you to work without constant input or guidance from me. If you need input in order to move forward on a task, it is your responsibility to reach out and ask for help. Please make sure you have made a concerted effort to resolve the problem before contacting me. For all projects, I will provide feedback on both big picture issues and small details. My goal is to provide enough guidance so that you feel supported in your work, but not so much that you fail to develop the ability to make independent decisions.

Time management. Lab members are expected to learn and practice good time management to help them work efficiently and meet project deadlines. The most effective time management strategies will differ between people. Some helpful strategies include: creating weekly to-do lists, scheduling meetings and dedicated work time around classes to maximize chunks of uninterrupted time, keeping track of both short-term and long-term goals using an academic project planner, and/or sending regular progress reports to other lab members who can offer support and provide accountability.

Open Science. Our research group is strongly committed to the principles and practices of open science (see Kathawalla et al., 2021 and Syed, 2019, for a description of what this means). We are constantly in the process of revising policies and procedures to ensure greater transparency in our research. This includes spending time creating proper data files, making data open for other researchers unless doing so is not feasible, conducting all analyses using reproducible code, pre-registering studies, and explicitly rejecting questionable research practices (e.g., selective reporting of variables, removal of cases, inclusion of unjustified control variables). All lab members are expected to conduct their research according to these principles.

AUTHORSHIP AND PRESENTATIONS ----------

Credit and Authorship. As an RA, you will often work on projects that are intended for publication in an academic journal. Following APA guidelines for authorship, RA's will be included as co-authors on manuscripts when they contribute substantially to a project (e.g., conducting data analyses, writing a lot of new material, providing substantial edits to drafts). Tasks like data entry, coding, and finding relevant articles for a literature review tend not to meet requirements for co-authorship, but will be acknowledged in the submitted manuscript under the "Author Note." Just because one RA is included as a co-author does not mean that all RA's will be co-authors; authorship is decided on a person-by-person basis based on unique contributions. Roles and authorship should be decided at the very beginning of a collaborative project. This decision can be later altered by mutual agreement if roles have changed.

Professional Meetings. Opportunities may arise for RA's doing novel research to attend local and/or national academic conferences and present their work. Three professional conferences that fit well into topics our lab studies include the annual conference for the *Society for Personality and Social Psychology* (SPSP), the annual conference for the *Society for the Improvement of Psychological Science* (SIPS), and the biennial conference for the *Association for Research in Personality* (ARP). If you are doing work that might fit well as a poster presentation at a conference and you have expressed interest in presenting at academic conferences, I will do my best to share the opportunity with you as soon as possible. Typically, conference submissions are due 6-8 months before the conference itself is held. Therefore, conference attendance often requires substantial advance notice and may only be available to students who have been in the lab for certain period of time. I do not currently have funding to cover expenses for students to attend conferences, but I will work to connect you with department and campus awards and/or travel awards from professional associations to try to help cover costs to help you attend these conferences, if applicable. Before attending a conference, I will hold a lab meeting about what to expect, appropriate conduct, etc.

PROFESSIONAL DEVELOPMENT AND FUTURE STEPS ----------

Research assistants in the lab have a wide range of career goals. I will do my best to share resources about many different career paths; however, please note that I know more about graduate school in psychology and less about industry, non-profits, medical school, law school, etc. given my own limited experiences. If you have a desired career path that I have not shared resources for, please reach out to me and we can work together to find relevant information.

Resources for graduate school in psychology:

- Grad School Application Resources for Clinical Psych PhD Programs (via Emily Bibbly)
- Advice for Applying to Graduate School in Clinical Psychology (via Mitch Prinstein)
- Undergraduate Steps for Pursuing a Clinical Psychology PhD (via Jessica Hamilton)
- So You Want to Go To Grad School in Clinical Psychology? (via Jessica Schleider)
- Graduate School Resources List and List by Research Area (via Meltem Yucel)
- Graduate Application Guide (via Jamil Zaki)
- Psych Masters Programs with Rigorous Statistics/Methods and Affordable (via Linda Skitka)
- Guide to Graduate Programs in Legal and Forensic Psychology and Student Resources (via the American Psychology-Law Society)

Resources for post-college research positions and internships:

- Resources for Applying to Post-Graduate Research Positions in Psychology (via Matt Coleman)
- Psych Research List Main Page (via Meltem Yucel)
- Postbac Jobs List and Paid Internships List (via Meltem Yucel and Yale Psychology)
- Psychology Grad School Wiki (turns over annually, check for most up-to-date year)
- Post-Graduate Research Jobs (via Harvard University)
- Psychology Job & Internship Opportunities (via Camilla McMahon at Miami University):
- Psychology Job & Research Opportunities (via Georgetown University)
- Post-Graduate Employment Opportunities (via University of Pittsburgh)
- AltAc Chats on LinkedIn