

Professional Development Workshop #2





Introductions



Meredith Pecukonis

Developmental Science
mpecukon@bu.edu



Esra Nur Küçük

Developmental Science
esranurk@bu.edu



Ian Chandler-Campbell

Applied Human Development
ilc@bu.edu



Jenna Sandler Eilenberg

Clinical Psychology
jenmiche@bu.edu

Today's Agenda

- What is research?
- Benefits of working/volunteering in a research lab
- Types of research positions
- Finding research labs and research positions
- Applying for research positions
- Cold emailing and interviewing
- Q&A discussion panel

What is “research?”

Literature Review

- ❖ Choosing a topic
- ❖ Identifying scientific field (s)
- ❖ Searching and reading the literature
- ❖ Identifying “discovery avenues”
- ❖ Finding theoretical literature support
- ❖ Finding research support

Study Design

- ❖ Developing a research question
- ❖ Operationalizing your variables
- ❖ Thinking about analytical plans
- ❖ Choosing research paradigms and methodology
- ❖ Selecting and justifying your sample

Data Collection

- ❖ Recruitment/ procurement
- ❖ Running procedures with your sample
- ❖ Collecting and recording data
- ❖ Storing, entering and organizing data

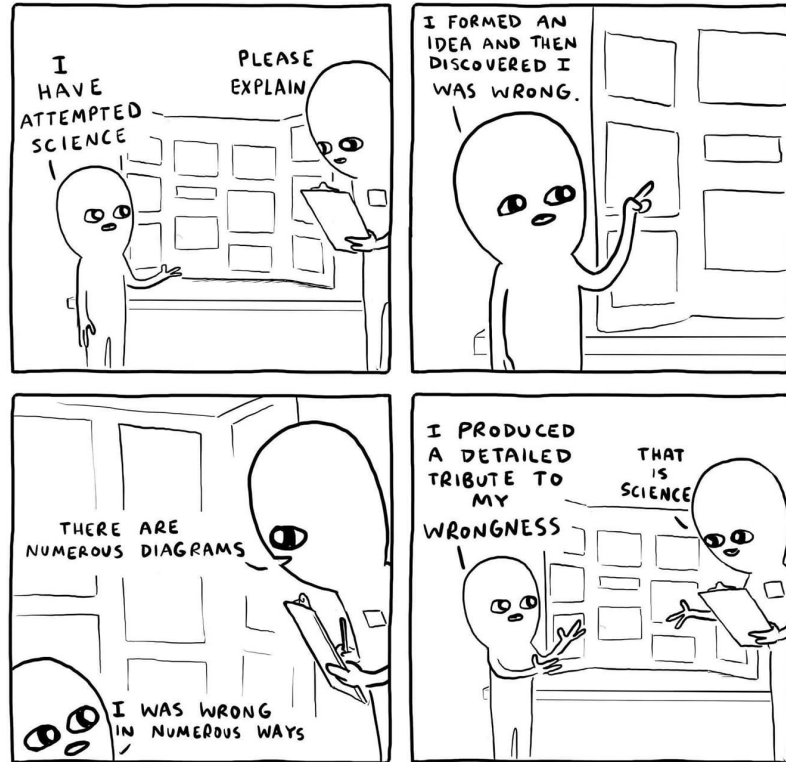
Coding & Analysis

- ❖ Data cleaning
- ❖ Data conversion (e.g., transcription)
- ❖ Data coding
- ❖ Analytical coding (e.g. dummy coding, categorical coding)
- ❖ Data Visualization & Analyses

Science Communication

- ❖ Posters/ Symposia
- ❖ Manuscript writing & publication
- ❖ Social media (e.g., “academic Twitter”)
- ❖ News media
- ❖ Local institution partnerships (e.g., MoS)

What is “research?”



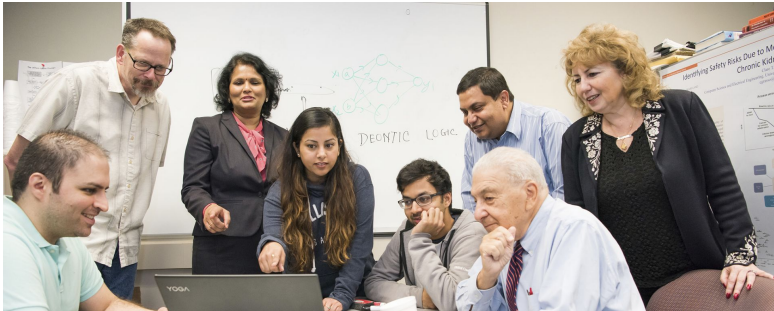
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What areas of psychology research can I specialize in?

- Clinical psychology
- Counseling psychology
- Developmental psychology
- Educational/school psychology
- Experimental/quantitative psychology
- Forensic psychology
- Health psychology
- Industrial/organizational psychology
- Neuroscience/cognitive science
- Social psychology
- Social work
- ... and many more!!!

What does day-to-day look like in a research lab?

- Reading and discussing articles
- Scheduling participants
- Collecting data
- Processing, visualizing, and analyzing data
- Meeting with other researchers
- Presenting your research findings to various audiences
- Writing and editing papers



Why should I work/volunteer in a research lab?

- To see if you enjoy it
- To build skills and professional connections
- To strengthen your knowledge on a specific topic or method
- To prepare you for graduate school applications
- To prepare you for job applications
- To add to your resume

Types of research positions

- Undergraduate research assistant or intern
 - Part-time
 - Usually unpaid/volunteer-based
 - Can sometimes get academic credit
 - Can sometimes involve honors thesis
- Post-bac research assistant or research technician
 - Full-time
 - Paid
 - Requires bachelor's degree ("post-bacc")
- Research fellows
 - Specialized research training programs/fellowships
 - Usually funded
 - Summer or semester programs
 - e.g., UROP

Specialized research training programs/fellowships



AMERICAN PSYCHOLOGICAL ASSOCIATION

<https://www.apa.org/education-career/undergrad/research-opportunities>



National Science Foundation
WHERE DISCOVERIES BEGIN

<https://www.nsf.gov/crssprgm/reu/>



<https://www.training.nih.gov/programs>

Specialized research training programs/fellowships

Boston University Research:

Undergraduate Research Opportunities Program

<https://www.bu.edu/urop/>

Boston University Undergraduate Research Opportunity Program

Summer Undergraduate Research Fellowship

<https://www.bu.edu/surf/>

Check out this link for other summer programs/fellowships!

<https://www.bu.edu/urop/opportunities/summer-research-2/>

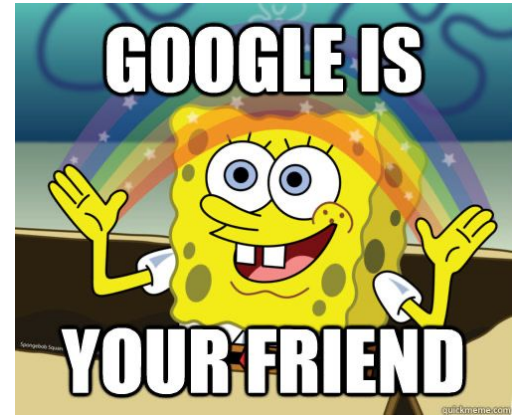
How do I decide which lab to apply to?

Ask yourself the following questions...

- What was my favorite undergraduate course?
- Which topics did I like the best in that course?
- Who was my favorite professor or TF?
- What population do I want to work with?
 - People, animals, cells, or computers
 - Children or adults
 - Clinical or “neurotypical”
- Where do I want to work?
 - Which university?
 - Which city?
- How much time can I realistically devote to research?
 - Semester vs summer
 - Part-time vs full-time
- What skills, knowledge, and expertise do I need to reach my long-term goals?

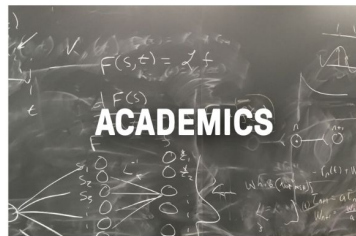
How do I decide which lab to apply to?

- Google, google, google!
 - Professor's name + "research"
 - Research topic/population + geographic location + "research"
- Find lab's website
 - Research center = large research lab
- Explore lab's website, looking for the following information...
 - Lab members/team/staff (know who the PI is - that stands for "principal investigator")
 - Current and upcoming research projects
 - Recent publications (<https://scholar.google.com>)
 - Current grants (<https://report.nih.gov> or google PI's name + "grant")



Navigating lab websites at BU

<https://www.bu.edu/psych/>



Navigating lab websites at BU



bu and child development and research



Boston University Psychological & Brain Sciences
Child Development Labs

[About Us](#) [Join Us](#) [Directions](#) [FAQ](#) [News](#) [Contact Us](#)

Come discover with us!

We work with children from birth to 12 years of age. Our studies involve stories and games, and visits are scheduled at your convenience.



Our Labs



[Boston University Twin Project](#)



[Brain and Early Experiences Lab](#)



[Child Cognition Lab](#)



[Developing Minds Lab](#)



[Research on Autism & Developmental Disorders](#)



[Social Development & Learning Lab](#)



[Biobehavioral & Social-Emotional Development Lab](#)

Navigating lab websites at BU

 Center for Autism Research Excellence - CARE

[Welcome to CARE](#) [Research](#) [Approaches](#) [Student Opportunities](#) [Publications](#) [Contact CARE](#)



Welcome to CARE!

Center for Autism Research Excellence

Undergraduate Research Opportunities

Thanks so much for your interest in an internship at CARE.

Meet our Wonderful Research Team!



Publications

2021

[Mariscal, M., Levin, A., Gabard-Durnam, L., Xie, W., Tager-Flusberg, H. & Nelson, C.A. \(2021\). EEG phase amplitude coupling strength and phase preference: association with age over the first three years after birth. *eNeuro*](#)

[Romeo, R., Choi, B., Gabard-Durnam, L., Wilkinson, C., Levin, A., Rowe, M., Tager-Flusberg, H. & Nelson, C.A. \(2021\). Parental language input predicts neurooscillatory patterns associated with language development in infants at risk of autism. *Journal of Autism and Developmental Disorders*](#)

[LaValle, C., Chenausky, K., & Tager-Flusberg, H. \(2021\). How do minimally verbal children and adolescents with ASD use communicative gestures to complement their spoken language abilities? *Autism and Developmental Language Impairments*.](#)

[Chenausky, K.V., Brignell, A., Morgan, A.T., Norton, A.C., Tager-Flusberg, H.B., Schlaug, G., Guenther, F.H. \(2021\). A Modeling-Guided Case Study of Disordered Speech in Minimally Verbal Children with Autism Spectrum Disorder. *American Journal of Speech-Language Pathology*.10.1044/2021_AJSLP-20-00121](#)

How do I find research positions?

- Explore job postings online
- Look out for emails about research positions
- “Network” with folks you already know
- Explore lab’s website
 - Announcements about open positions
 - Online application
- “Cold email” members of the lab directly
 - Email the lab manager
 - If the lab doesn’t have a lab manager, email the PI
 - You can also email doctoral students directly if you see that they are working on a project that looks interesting to you

“Cold emailing” etiquette

- Introduce yourself
 - Name, school, major, year in studies
- Express your interest in their research
- Ask them if they are currently recruiting undergraduates to join the lab
- Let them know you are available to talk more and can send your resume upon request
- If you do not hear back from them within ~1 week, you can send a follow up email



“Cold emailing” etiquette

Remember to be “PBS” :)

- **Professional**
 - Don't say anything you wouldn't say to your grandmother
- **Brief**
 - Your email should be between 3-5 sentences
- **Specific**
 - Mention which of their projects/recent papers sound the most exciting to you

Cold email template

Dear Dr. _____,

My name is _____, and I am currently a _____ year undergraduate student studying psychology at Boston University.

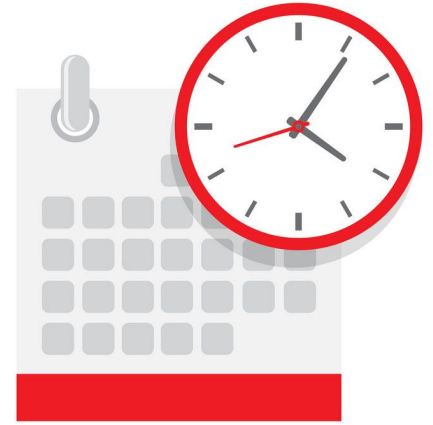
I find your research on _____ to be very interesting/fascinating/exciting/intriguing/etc. I am particularly interested in your recent paper/study on _____.

Will the _____ lab be recruiting any undergraduate research assistants for the fall semester/spring semester/summer? If so, I would love to set up a time to talk to you more about getting involved with your research.

Sincerely,

When should I apply?

- Most labs recruit research assistants/technicians to start working at the beginning of the fall semester and the beginning of summer
- Job postings
 - Spring job posting → fall start date
 - Winter job posting → summer start date
- Cold emailing
 - Start sending emails 2-3 months before you want to start, even earlier if possible
- Research training programs/fellowships have their own unique application deadlines
 - Get applications in ASAP



What will I need to prepare for my application?

- Resume
- 2-3 references
 - Professors
 - TFs
 - PIs/Bosses
- Cover letter
- Keep a running list of the jobs you have applied for
 - Deadlines
 - Email addresses for points of contact
 - Links to applications
 - Notes about position

A few notes about resumes...

- Name the document appropriately
 - “First Name Last Name_Resume.pdf”
- Keep it short (1 page)
- Tailor it to the position you’re applying for
 - Use keywords that are included in the job posting
- Use strong action verbs
- Make sure there are NO typos!
- Reverse chronological order (most recent dates first)
- Be honest about your skills and experiences
- Helpful links
 - <http://www.bu.edu/careers/files/2012/08/Resume-Guide-2012.pdf>
 - <http://questromworld.bu.edu/udc/career/resumes-and-cover-letters/>
 - <http://questromworld.bu.edu/udc/files/2019/01/Fall-2017-UndergraduateResumeGuide.pdf>
 - https://www.psychologicalscience.org/members/apssc/undergraduate_update/undergraduate-update-summer-2013/how-to-write-a-strong-cv

"Hey can you put together an in depth excel spreadsheet? On your resume it said you were proficient."

Me:



A few notes about resumes... (continued)

- Headings
 - Personal Info
 - Name, phone number, email address, address info
 - Summary
 - Brief description that highlights skills related to position (not always required)
 - Education
 - Name of School, Degree
 - Honors & Awards
 - Name of awards/honors/fellowships
 - Research Experience or Professional Experience
 - Name of position, location
 - Description of responsibilities & accomplishments
 - Publications/Conference Presentations
 - Put in numbered format and use APA style
 - Clinical Experience
 - Name of position, location
 - Description of responsibilities & accomplishments
 - Professional Memberships
 - Any organizations, associations, and societies you are affiliated with
 - Skills & Certifications
 - Do you have any specialized training?
 - Are you proficient at certain skills (e.g., programs, coding)?
 - Service
 - Have you participated in any service opportunities (university level, community level, professional level)?
 - Teaching & Mentorship
 - Have you taught any courses? Have you mentored any students?

Woohoo, I got an interview!
Now what?

Interview etiquette

- Know who will be interviewing you ahead of time
 - Title
 - What they research/do in the lab
- Prepare a list of questions to ask the interviewer
- Arrive early
- Bring a copy of your resume
- Bring a pen/paper to take notes (even though you might not take any notes)
- Dress business casual
 - No shorts/short skirts
 - No tank tops
 - Brush your teeth and comb your hair
- Exhibit positive, confident body language
- Do not leave the interview early
- Put your phone away
- Send a thank you email



TOP 6 INTERVIEW BODY LANGUAGE TIPS

Confident Body Language In An Interview

1 Give a great handshake



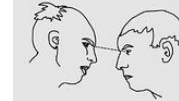
THE KEY TO A GREAT HANDSHAKE IS TO BE FIRM AND MATCH YOUR INTERVIEWER'S GRIP. THIS WILL SHOW THAT YOU ARE CONFIDENT AND READY TO TACKLE PROBLEMS THAT COME YOUR WAY. YOU DON'T WANT TO GRIP TOO HARD BECAUSE THIS WILL GIVE OFF THE IMPRESSION THAT YOU ARE OVERBEARING. YOU ALSO DON'T WANT YOUR HANDSHAKE TO BE FLOPPY. THIS WILL SIGNAL TO THE INTERVIEWER THAT YOU ARE A PUSHOVER AND HAVE A HARD TIME MAKING DECISIONS.

2 Sit up straight



Posture during an interview is essential! You want your posture to be long and tall. Sitting up straight signals to the interviewer that you are determined and thoughtful. Whereas slumping gives off the impression that you are careless, indifferent and forgetful. While sitting up straight, you want to appear relaxed but not too relaxed. One way to do this is to sit forward from the waist and if you can, sit angled from the interviewer.

3 Maintain good eye contact



Good eye contact in an interview will go along way. When you're interviewed is speaking, look directly at his or her face. Bounce from one eye to the other and then to the mouth. This will help you hold a natural gaze and will show the interviewer that you are engaged.

4 Don't fidget



During your interview, it's important to come across capable and alert. One way to do this is to not fidget. Don't touch your face, don't move around a lot in your seat, don't tap and don't pull at your clothing. This will give off the impression that you are uncertain and unreliable. Rather sit with your feet planted on the floor with your hands placed naturally in front of you, sitting from side to side occasionally.

5 Use natural hand and arm movements



It's okay to use your hands and arms to emphasize certain points during your interview. This will show that you are engaged and energetic. Be mindful however not to overemphasize. When it comes to your arms and legs, don't have them crossed. This suggests that you are closed and not open to learning or change. For women, cross your legs at the ankle.

6 Smile



Smiling during an interview demonstrates that you are warm and friendly. It also shows the interviewer that you have a personality. During the right moments, show your pearly whites, specifically when you first meet, when you say goodbye and when you talk about things that really interest you.

Possible interview questions to be prepared for

- Tell us about yourself.
- Why did you apply for this job?
- Which aspect of our research is most interesting to you and why?
- What project would you like to work on at our lab and why?
- What skills or experiences do you hope to gain from this job? What are your expectations for this job?
- Do you have any previous research experience? If so, which labs? What types of projects did you work on and what types of tasks did you do?
- What courses have you taken that would help you in this job?
- What previous experiences make you a good fit for this job?
- What are your long-term career goals? Where do you see yourself in 5 years?

Possible interview questions to be prepared for (continued)

- Tell us about a personal trait or aspect of your identity that will make you a good fit for this job.
- Tell us about an accomplishment that you're proud of and why you're proud of it.
- Can you describe a time that you had to work in a group to overcome a problem? What was the most challenging part of working on that project with other people? How did you deal with that challenge? What was the best part of working on that project with other people?
- What role do you usually take on when working in a group?
- Tell us about one skill or experience from your resume that you'd like to highlight.
- When you have multiple responsibilities to handle in a given day, how do you prioritize tasks?

Other helpful tips

- Be persistent
- Be flexible
- Any research experience is good research experience
- Leverage your personal connections

Helpful resources

- APA getting involved in undergraduate research:
<https://www.apa.org/ed/precollege/psn/2014/01/research-undergraduate>
- Searching for a full-time RA position:
<https://www.wcupa.edu/sciences-mathematics/psychology/documents/HowtofindaBAlevelRAposition2017.pdf>
- Job postings for full-time RAs: <https://clinicalpsychgradschool.org/positions/>
- Job postings in psychology: <http://psychjobsearch.wikidot.com/#toc19>
- List of paid research internships:
<https://www.psychresearchlist.com/paid-internships.html>
- Post-bac research programs in psychology:
<https://www.apa.org/ed/precollege/psn/2020/03/post-baccalaureate-programs>
- Many other helpful links here!
<https://docs.google.com/document/d/1IFT05jsZIBc9DK6NXYP5c7v18tyHAnoBfJznTtqdc7Y/edit>

Q&A Discussion Panel

- **Sophia Carias**
 - Undergraduate student in neuroscience at Boston University
 - scarias@bu.edu
- **Ione Madsen Hardy**
 - Undergraduate student in linguistics and speech, language, and hearing sciences at Boston University
 - imh@bu.edu
- **Miriam Kamens, B.A.**
 - Senior research assistant at Boston Medical Center
 - mlkamens@gmail.com
- **Casey Lewry, B.A.**
 - Doctoral student in psychology at Princeton University
 - lewry@princeton.edu
- **Madison Newell, B.A.**
 - Research assistant at Youth Anxiety Center Weill Cornell Medicine
 - Part-time research coordinator at MIND Clinic at NYSPI-Columbia University Medical Center
 - minewell@bu.edu
- **Pooja Sonikar, B.S.**
 - Research fellow at the Centers for Disease Control and Prevention
 - psonikar@bu.edu