

# The Importance of Research Experiences in Graduate and Undergraduate Education

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- Regardless of your career goals, **NOTHING** is more important in your education than to garner multiple, substantial research experiences.
- Each of you has a career choice ahead of you—going into academe’ (ranging from research intensive to teaching intensive institutions), the private sector, practical work, or graduate school.
- For each of those choices, it is crucial for you to have knowledge of research methods (as both a consumer and practitioner of research), as well as actual research experiences in utilizing those methods.

- First I will describe my personal research experiences, from my undergraduate days through the present.
- In other words, I will be telling you my deepest, darkest, and most enlightening research secrets (IOW, things my advisees and even my wife might not be aware of, perhaps some things that my colleagues would prefer me NOT to say).
- This will lead into a list of tips on how to obtain research experiences. Thus my personal experiences will provide some context for these tips.
- I will conclude with a personal challenge to you.

# I. Undergraduate Times

- Psychology major at small liberal arts college (St. Joseph's in Philadelphia).
- Freshman year, second semester: Introductory Statistics.
- Sophomore year: Experimental Psychology (weekly labs).
- Junior year, second semester: Intensive Research Semester (hypnosis experiment; first research project from beginning to end; first use of statistics software).
- Senior year: Now what?
- More interested in research methods than psychology, and what can you do with a bachelor's in psychology anyway, so...

# II. Graduate Times

- Initially a master's student in educational research methodology at the University of Pittsburgh.
- Right away learned details about statistics software.
- First year assistantship: GTA in an introductory educational research course.
- Second year assistantship: Personal GRA to the Dean of the College of Arts and Sciences (program evaluation projects).
- Master's thesis on comparing different statistical methods (first presentation <AERA>, first publication).
- Completed master's degree: Now what?
- ETS, SDE, Ph.D...

- Decided to remain at Pittsburgh and work on my Ph.D. in educational research methodology.
- Remaining years assistantship: GRA in the Evaluation Research Unit of the Learning Research & Development Center (LRDC); my assistantship was to develop expertise in a newly emerging statistical technique (structural equation modeling).
- Continued research and conference presentations (mostly AERA).
- Dissertation data came out of 2-year observational study of literacy development in LD classrooms.
- With Ph.D. in hand: Now what?
- ETS, Assessment specialist at R1, professor at teaching university, post-doc.

# III. Post-Doctoral Times

- Obtained first REAL teaching experience (taught a master's course and co-taught a doctoral seminar).
- Completed several papers from my dissertation and began sending those off for review.
- Organized a conference in Santa Monica CA (funded by the System Development Corporation) on structural equation modeling.
- Ultimately I was able to generate 7 publications from my dissertation data.
- And then...

# IV: Professorial Times


- As a researcher, I just kept doing what I had been trained to do. That is, following my already established lines of research (early literacy and multivariate statistics), seeking out the best colleagues that I could find in existing as well as new areas of inquiry, and working VERY hard.
- Largely this was due to the incredible mentorship that I had received from undergraduate times through post-doctoral times. I strive to do the same with my own students (both advisees as well as those in my classes).



- As a result of the mentoring, research experiences in school, working with great colleagues, and basic hard work, lots of good things have happened throughout my career...
- Publications and grants (half with colleagues that I had sought out or who had sought me out; thus publications in many diverse outlets, as shown in the program).
- Honors (Fulbright awards, AERA Fellow, others).
- Promotions.
- Yada, yada, yada.

# V: Top 8 Tips for Obtaining Research Experiences

- 1. ALWAYS be involved in at least one research project (even if your contribution is not funded).
- 2. Take as many research methods courses as you possibly can (and then one more).
- 3. Seek out interdisciplinary research opportunities (i.e., students and professors NOT in your program). This is the new norm. This will allow you to work & publish in multiple venues, as well as generate more publications than you could by yourself.

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- 4. In your discipline, find out...
  - about the top journals (and READ them),
  - about the top professional associations (and JOIN them), and
  - about the top professional conferences (and ATTEND them).


- 5. Seek out the best possible mentor(s) and **WORK CLOSELY** with them (and I don't mean seeing them once a year to decide which courses to take; that is not mentoring). Be proactive and don't wait for them.
- 6. Show your professors how interested you are in research. You never know what that can lead to.

- 7. Go to as many conferences as you possibly can (international, national, regional, local). Here you can obtain experiences in:
  - how to present (and how not to!),
  - networking,
  - preliminary job interviews,
  - learn about your field and as well as other fields of interest (go beyond OSU!),
  - hear the top people in the world talk about their research,
  - find out about the latest books, and most importantly,
  - present your own work.

- 8. There are incredible research resources available to you right now. Find out about them and get going. Beyond those already mentioned, these include: travel funds (D<sup>1</sup>, OR, E), dissertation grants and fellowships (OR, E), and workshops, brown bags, and training sessions (D, OR, U, E) (which is really professional development).
- <sup>1</sup>: D (department), OR (EHE Office of Research), U (OSU), E (external funding agencies, foundations, & professional associations).

# VI: Lomax 24-hour challenge

- Within the next 24 hours, you must promise to do the following:
- Email your advisor (and/or other appropriate mentor) and ask how you can help out with one of their research projects. **DO NOT** ask about funding. Volunteer your services for **FREE**. All professors need help, so go for it.
- This can lead to future activities such as: presentations, publications, funded research opportunities, an enhanced CV, a reference letter that can attest to something beyond course grades, job offers, and ultimately a career.

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- Don't sit around and wait to be asked to be on projects. Be proactive.
  - And don't decline an offer.
  - So let's all say this together:
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- **I PROMISE TO VOLUNTEER MY RESEARCH SERVICES TO MY ADVISOR OR MENTOR WITHIN 24 HOURS.**