Harnessing the Power of Students in Faculty Research

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Overarching Framework

See https://leader.pubs.asha.org/article.aspx?articleid=2087385

- **Expertise: Become a researcher**
  - Hands-on research

- **Experience: Think like a researcher**
  - Broader & deeper understanding of research
  - Application to an issue in the field

- **Exposure: Gain an appreciation of scientific inquiry**
  - Develop basic research skills
  - Introduction to research questions and methods
Apply Framework to Undergraduates


- **Expertise**: Become a researcher
  - Conduct a mentored research project
- **Experience**: Think like a researcher
  - Take a research methods course
  - Write a research proposal
- **Exposure**: Gain an appreciation of scientific inquiry
  - Take a statistics class
  - Learn to read journal articles
  - Simulate research methods
Undergraduate Expertise Example: University of Kansas

- Research Experience Program (REP) vs. Departmental Honors Program
- Centralized Matching Process
  - Faculty (and PhD Students) submit project ideas to the coordinator
  - Coordinator distributes application to all students
  - Students submit completed applications
    - Students can propose a more independent project
  - Coordinator matches students to faculty
  - Research begins!
Apply Framework to MA SLP Students

- **Expertise**: Become a clinical researcher
  - Conduct a clinical research project
- **Experience**: Think like a clinical researcher
  - Implement an EBP practice in the clinic
  - Collect data in the clinic
- **Exposure**: Gain an appreciation of EBP
  - Learn to read journal articles from an EBP perspective
  - Identify evidence that supports your clinical practice
MA SLP Expertise Example: University of Kansas

- Research Practicum vs. MA Thesis
  - Practicum = involvement in ongoing faculty (or PhD student) research
  - Thesis = more independent project
- Students encouraged to talk to faculty to learn about ongoing research
- Mutually agreeable project is negotiated
Apply Framework to AuD Students

- **Expertise**: Become a clinical researcher
  - Conduct a data-based research project
- **Experience**: Think like a clinical researcher
  - Frame clinical questions into a research project
  - Consider foundational and applied research
- **Exposure**: Gain an appreciation of EBP
  - Read journal articles from an EBP perspective
  - Identify evidence that supports clinical practice
AuD Expertise Example: University of Memphis

- Data-based research projects in 2nd and 3rd years
  - Students work with faculty mentors
  - Conduct literature review, contribute to design of methodology, submit IRB
  - Collect all data
  - Faculty assist with statistical analyses

- Presentation and dissemination of research
  - Annual research forum for faculty and students
  - Poster presented at U of M Student Research Forum and at regional and national conferences
  - Many are published
Apply Framework to PhD Students

- Expertise: Become a researcher
  - Develop your independent, programmatic line of research
- Experience: Think like a researcher
  - Research apprenticeship
- Exposure: Gain research tools
  - Theory
  - Research methods/statistics/paradigms
PhD Example:
University of Memphis

- Exposure
  - Coursework - doctoral plan highly individualized
- Experience
  - Laboratory involvement – 20 hours a week t/o program
  - Work on existing lab projects
- Expertise
  - Pre-candidacy project
  - Dissertation
  - Presentations and publications
  - Grant submissions
PhD Example: University of Kansas

- Years 1-2’ish
  - Exposure - coursework & research practica
  - Experience - research practica &/or GRA position
- Transition - comps
  - Move into expertise
  - Take the intellectual lead
- Expertise - dissertation
  - Full responsibility (with a net)

Independence

Collaboration

Mentoring
Questions & Discussion

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CAPCSD 2018 Resource List
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Undergraduate Resources

- **C.R.E.A.T.E.** (*Consider, Read, Elucidate the hypotheses, Analyze and interpret the data, and Think of the next Experiment*) is a teaching method for using primary research articles in courses.
- **SWoRD** (*Scaffolded Writing and Reviewing in the Discipline*) is a Web-based system for peer review of research proposals or final reports. Now Peerceptive.
- The Council on Undergraduate Research has many publications related to a wide range of successful undergraduate research practices.
- The University of Kansas Center for Undergraduate Research, Departmental Best Practices provides resources for building departmental culture for student research.

Evidence-Based Practice Resources

- ASHA National Center for Evidence-Based Practice in Communication Disorders (N-CEP) Evidence-Based Systematic Reviews [http://www.asha.org/Research/EBP/EBSRs/](http://www.asha.org/Research/EBP/EBSRs/)
- ASHA wire for access to all ASHA publications [http://pubs.asha.org/](http://pubs.asha.org/), especially the Clinical Research Education (CREd) Library at [https://cred.pubs.asha.org/credlibrary.aspx](https://cred.pubs.asha.org/credlibrary.aspx), which provides tutorials on research methods and research careers
- Cochrane Library (Systematic Reviews, Medical) [http://onlinelibrary.wiley.com/cochranelibrary/search](http://onlinelibrary.wiley.com/cochranelibrary/search)
- Agency for Healthcare Research and Quality National Guidelines Clearinghouse (Medical) [https://www.guideline.gov/](https://www.guideline.gov/)
- Campbell Collaboration (Systematic Reviews & Plain Language Summaries) [https://www.campbellcollaboration.org/library](https://www.campbellcollaboration.org/library)

Literature Databases (these are publicly available, i.e., accessible post-graduation, and will contain free full text access to articles that were supported by grant funding, as indicated)

- ERIC (education) [https://eric.ed.gov/](https://eric.ed.gov/) (free full text for research supported by IES)

Writing

- Purdue Online Writing Lab (OWL) [https://owl.english.purdue.edu/owl/](https://owl.english.purdue.edu/owl/)