

CD 501

Introduction to Research Methods

Paul E. Reed

Fall 2017

E-mail: pereed1@ua.edu

Office Hours: 10am-11am TR

Office: Rm 306 Speech and Hearing Center

Web: paulereed.com/teaching

Class Hours: 1pm - 2:15pm MW

Class Room: TBD

Course Description

From the *UA Course Catalog*: Study of research methods for use in communicative disorders and related disciplines. Emphasis on evaluation of experimental design for clinical research and critical reading of published research.

What this means: This course is designed to teach basic research skills as well as to help students think critically, particularly how research can inform therapy. Part of the course will be such items as presenting and discussing different types of research designs, statistical tests and understanding validity and reliability. The majority of the course will be reading and critiquing articles from typical speech, language and hearing journals. When the class is complete students should have a basic understanding of how to find specific articles, how to analyze what they have read, and how to implement what they have learned in the clinical setting.

Course Objectives

At the end of the course, students will be able to:

- Understand different research designs
- Understand measures of central tendency
- Understand different types of statistics and when they are appropriate to use
- Determine if the article has validity
- Read, understand and critique journal articles in the field
- Determine efficacy from a journal article

- Determine good and poorly designed studies
- Read tables and figures
- Understand ethics in research
- Become familiar with internet search engines and how to use them

ASHA Knowledge Outcomes

- Standard IV-E - The applicant must have demonstrated knowledge of standards of ethical conduct. Implementation: The applicant must have demonstrated knowledge of the principles and rules of the current ASHA Code of Ethics.
- Standard IV-F - The applicant must have demonstrated knowledge of processes used in research and of the integration of research principles into evidence-based clinical practice. Implementation: The applicant must have demonstrated knowledge of the principles of basic and applied research and research design. In addition, the applicant must have demonstrated knowledge of how to access sources of research information and have demonstrated the ability to relate research to clinical practice.
- Standard V-A - The applicant must have demonstrated skills in oral and written or other forms of communication sufficient for entry into professional practice. Implementation:the applicant must have demonstrated the ability to write and comprehend technical reports, diagnostic and treatment reports, treatment plans, and professional correspondence in English.

The course will be a combination of assigned readings, lectures, exercises, small group discussions and individual projects.

Required Text

- Orlikoff, Robert F., Nicholas Schiavetti, and Dale Evan Metz . 2015. *Evaluating Research in Communications Disorders*. 7th ed. Upper Saddle River, NJ: Pearson.

Course Readings

Additional readings will be provided on the course website (or on the teaching page of my website)

Course Policies

- **Attendance and punctuality** — Attendance is a requirement in this course. Although there is no specific penalty for missing a class, you will be held responsible for the content of every lecture and for knowing about assignments. If you should need to miss a class, be certain to check with me to ascertain what you will be missing. If you should miss a class

or arrive late, be sure to find out what you missed. It is very important that you come to class **on time**. Failure to do so is disruptive and impacts negatively on the rest of class.

- **Electronic distractions** — Laptops, tablets, and smart phones are almost becoming like extended parts of our bodies; however, please respect the institution of the University, the instructor, and yourself by using electronic devices appropriately. You may use your laptop/tablet to take notes and participate in class activities, but you are required to be responsible with respect to sites visited during class. Further, please silence your cell phones before entering the classroom. Use of any technological devices during exams will result in a zero on that exam. Failure to adhere to these policies may result in dismissal from class.
- **Grading of homework assignments** — Grading criteria vary according to the assignment (rubrics for each assignment will be provided on the class website or the teaching tab of my website), though you should always aim for originality, relevance (use proper citation methods), style, grammar, and well-crafted presentation of arguments and counter-arguments. It is your responsibility, whether you are present or not, to be aware of due dates and times for assignments ('It's in the syllabus'). Late assignments (when accepted) will be lowered one letter grade (10%) for each day late (including weekend days).

– No make-up exams will be given.

Grading Policy

- 10% Participation
- 20% Homework
- 20% Article Critiques
- 10% IRB Certification
- 20% Final Project
- 20% Exams (2 - 10% each)

Grading Scale

A	89.5-100.0	excellent, exceptional
B	79.5-89.49	good, commendable
C	69.5-79.49	adequate, passable
D	59.5-69.49	unsatisfactory
F	< 59.49	über unsatisfactory

Exams and Assignments

- **Participation:** Please read and come prepared to discuss the readings. Much of the class will be spent putting the reading into practice.

- **Homework:** There will 3-5 homework assignments designed to allow you to practice the concepts covered in readings and lectures. They will be posted on the class website and/or on the teaching tab at my academic website at least one week prior to the due date.
- **Article Critiques:** Each student will be expected to read and critique 6 research studies in academic articles. These articles will be available to the student through www.lib.ua.edu. The critiques will be submitted via email and also posted to the Blackboard Discussion Board.
- **Exams:** There will be 2 examinations for this course, and they will be a combination of short answer/short essay questions. The course is roughly divided into halves. The first exam will cover the material from the first half, and the second exam will cover the second half.
- **Final Project:** Students will write a research proposal, where you discuss how you would carry out a study/experiment/case study on a research topic of their choice (for 20% towards their final grade). This class is an introduction to research and I will not require that you conduct a fully fledged study (although if you want to, you are very welcome to do so). However, no matter if your orientation is theoretical or practical by the end of the course you should be able to consider how you might carry out research. I encourage you to start thinking about your research proposal right away. Students are strongly encouraged to schedule a meeting with me to discuss possible topics and methods. A 1-page research prospectus outlining the research topic is due by the date indicated below. In the following weeks you will be working on finding a research method that you think will produce a straight answer to your question. The research proposal should be between 6-10 pages long (excluding the cover page, references, and potential appendices), double-spaced, 12-point font, 1-inch margins throughout. The research paper is due by the date indicated in our schedule below.
- **IRB Certification:** You will be required to complete the Collaborative Institutional Training Initiative (CITI) Program for non-medical training. You must print out a copy or email me your certificate. The training can be found at: www.citiprogram.org.

Academic Dishonesty Policy

You are encouraged to work together, but are expected to do your own work and acknowledge use of anyone else's work or ideas. Academic dishonesty includes: (a) copying another student's work or letting another student copy your work and (b) copying passages or ideas directly from another source and passing them off as your own; that is, without properly referencing them. If you have been academically dishonest, and violated the Honor Pledge and Code (<https://goo.gl/6j2E2F>), I will be required to report you to the Office of Academic Affairs. Each student must write up her/his assignment independently; copying and pasting is not allowed.

If you decide to collaborate with others, please describe the nature of this collaboration, whether in the capacity of having your assignment proofread, receiving assistance with the analysis, or simply 'throwing around ideas'. A brief sentence at the top of your assignment will be sufficient. You will not be 'marked down' if you received assistance, but it is important to acknowledge those who have directly helped you develop your ideas.

Statement on Academic Misconduct

Students are expected to be familiar with and adhere to the official Code of Academic Conduct (<http://bit.ly/2vcePnr>) provided in the Online Catalog.

Statement On Disability Accommodations

In keeping with the University of Alabama’s commitment to non-discrimination and providing program accessibility for qualified students with disabilities, I am happy to provide reasonable accommodation in collaboration and guidance with the Office of Disability Services. Students wishing to make such arrangements should contact the Office at 348-4285.

Severe Weather Protocol

Please see the latest Severe Weather Guidelines (<http://bit.ly/2g3hHQN>) in the Online Catalog.

Pregnant Student Accommodations

Title IX protects against discrimination related to pregnancy or parental status. If you are pregnant and will need accommodations for this class, please review the University’s FAQs on the UAct website (<http://bit.ly/2xavlWE>).

Religious Observances

Under the Guidelines for Religious Holiday Observances, students should notify the instructor in writing or via email during the first two weeks of the semester of their intention to be absent from class for religious observance. The instructor will work to provide reasonable opportunity to complete academic responsibilities as long as that does not interfere with the academic integrity of the course. See full guidelines at Religious Holiday Observances Guidelines (<http://bit.ly/2v3Fw1C>).

UAct Statement

The UAct website (<http://bit.ly/2v3B6Ik>) provides an overview of The University’s expectations regarding respect and civility.

Tentative Schedule

Week 01, 08/21 - 08/25: Course Overview, Why Research?

Week 02, 08/28 - 09/01: What is the Scientific Method?

- **Reading:** Chapter 1

Week 03, 09/04 - 09/08: Research Ethics; Evidence-Based Practice

- **Reading:** ASHA's Code of Ethics
- **Reading:** Ambrose and Yairi 2002 (on website and Blackboard)
- **Activity:** Evidence-based practice tutorial (ASHA website)

Week 04, 09/11 - 09/15: Engaging with Research - The Introduction Section; Writing a Research Question

- **Reading:** Chapter 2

Week 05, 09/18 - 09/22: Research Strategies

- **Reading:** Chapter 3
- **Assignment:** Article Critique 1

Week 06, 09/25 - 09/29: Research Design

- **Reading:** Chapter 4
- **Assignment:** Article Critique 2

Week 07, 10/02 - 10/06: More Research Design - Treatment Efficacy

- **Reading:** Chapter 5
- **Assignment:** Article Critique 3

Week 08, 10/09 - 10/13: Review and Exam 1

Week 09, 10/16 - 10/20: Qualitative Design and Single Subject Designs

- **Reading:** Kovarsky, 1994 (on website)
- **Reading:** Keegan, 2012 (on website)
- **Assignment:** Research Prospectus

Week 10, 10/23 - 10/27: Engaging with Research: Methods Section; Measurement Issues, Reviewing Methods for Evidence-based Practice

- **Reading:** Chapter 6
- **Assignment:** Article Critique 4

Week 11, 10/30 - 11/03: Engaging with Research: Results Section

- **Reading:** Chapters 7-8
- **Assignment:** Article Critique 5

Week 12, 11/06 - 11/10: Engaging with Research: Discussion Section

- **Reading:** Chapter 9
- **Assignment:** Article Critique 6

Week 13, 11/13 - 11/17: Review and Exam 2

Week 14, 11/20 - 11/24: Critically Evaluating Evidence-Based Practice

- **Reading:** Chapter 10

Week 15, 11/27 - 12/01: Review and Final Projects