

## 80300 Research Methods in Psycholinguistics and Cognitive Linguistics

Tuesday 4:15 - 6:15 pm, 3 credits

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The intelligent consumer of the applied literature in linguistics—whether in experimental or developmental psycholinguistics, or in any field where the evaluation of empirical research is at stake—is well-versed in the underlying principles of experimental design, methodology, and quantitative analysis. This course imparts knowledge of such principles, by surveying a range of methods, from the familiar to the esoteric, currently in use in empirical research on language perception, production, and acquisition. The course includes modules on the established conventions and on the steps involved in gathering data on participants' language histories, on developing and piloting experimental procedures, designs, and materials sets, on understanding the assumptions underlying the analysis of complex designs, and on reporting findings. The course will draw on examples of research in sentence processing, generally, and will give particular emphasis to studies assessing performance in second language learners and bilinguals.

The course is intended not only for those students who have already embarked on their own projects (or are about to do so), but also for those who have plans (however modestly formulated) for some such research in the future. For students at all levels, the course will provide a suite of skills critical for conducting independent research, and for understanding and evaluating the research of their colleagues.

The use of technology to perform research-related tasks will be emphasized, though no background knowledge in any particular software is assumed. The types of software that students will become familiar with include: tools to display experimental stimuli and record participant responses, spreadsheet tools, voice recording processing and speech analysis tools, statistical analysis tools, and tools used to generate visual displays of quantitative information.

In addition to assigned readings and occasional problem-solving assignments, the course requires a 5-10 page report (midterm) and a 5-10 page proposal for an empirical study (final).

### Tentative Outline

Date	In-Class	Out-of-Class
1. 01/31	<ul style="list-style-type: none"><li>▪ Introduction: course plan, requirements, schedule</li><li>▪ Defining and refining a research question</li></ul>	<ul style="list-style-type: none"><li>▪ GC's electronic databases, with focus on LLBA and EBSCO</li><li>▪ Norris &amp; Ortega, 2000, 2001</li></ul>
2. 02/07	<ul style="list-style-type: none"><li>▪ Participants are complex</li></ul>	<ul style="list-style-type: none"><li>▪ Fernández, 2003 (Ch. 6)</li><li>▪ Metz et al., 1997</li><li>▪ Thomas, 1994</li></ul>
3. 02/14	<ul style="list-style-type: none"><li>▪ Materials designs are complex and cross-linguistic comparisons are odious</li></ul>	TBA
02/21	NO CLASS: MONDAY SCHEDULE	
4. 02/28	<ul style="list-style-type: none"><li>▪ Baby stats, part I</li></ul>	<ul style="list-style-type: none"><li>▪ Ferguson &amp; Takane, 1989 (excerpts)</li></ul>
5. 03/07	<ul style="list-style-type: none"><li>▪ Procedures (overview) and introduction to DMDX</li></ul>	<ul style="list-style-type: none"><li>▪ Forster, 1979</li><li>▪ Mitchell, 2004</li><li>▪ DMDX help files; DMASTR manual</li></ul>
6. 03/14	<ul style="list-style-type: none"><li>▪ Materials revisited</li></ul>	TBA
7. 03/21	<ul style="list-style-type: none"><li>▪ Child Language Workshop and CUNY 2006 conference: FIELDWORK, NO CLASS</li></ul>	<ul style="list-style-type: none"><li>▪ Workshop and CUNY Conference abstracts booklets</li></ul>

Date	In-Class	Out-of-Class
8. 03/28	▪ Collecting data	▪ IRB manual and CBT MIDTERM REPORT DUE
9. 04/04	▪ Baby stats, part II: exploring a dataset	▪ Ferguson & Takane, 1989 (excerpts)
10. 04/11	▪ Toddler stats: focused and premeditated analyses	▪ Ferguson & Takane (more excerpts)
04/18	NO CLASS: SPRING BREAK	
11. 04/25	▪ Alternative analyses	▪ TBA
12. 05/02	▪ Chartjunk and other things to avoid when reporting and displaying quantitative information	▪ Tufte, 1983, 2003
13. 05/09	▪ Head-mounted eyetracking: guest speaker Irina Sekerina (College of Staten Island)	▪ TBA
14. 05/16	▪ The statistical modeling of variability: guest speaker Gregory Guy (NYU)	▪ TBA
15. 05/23	▪ NO CLASS: FINAL EXAMS WEEK	FINAL PAPER DUE

## Assessment

Midterm: report (5-10 pp.) on a procedure you've never used or a review of an experimental report of your choice with a focus on its methods (40%)

Final: proposal (5-10 pp.) for a project involving empirical research, emulating a grant proposal (40%)

Occasional homework assignments and in-class participation (10%)

## Readings

This is only a preliminary list. Additional resources will be announced in class and posted online. We will discuss how these readings are to be made available. Most of them are retrievable from full-text databases at the Graduate Center. Some are available on the Internet, for (free) download or purchase. Used copies of Ferguson & Takane (1989) sell on E-Bay for less than \$2!

Ferguson, G. A. & Takane, Y. (1989). *Statistical analysis in psychology and education (sixth edition)*. New York, NY: McGraw-Hill.

Fernández, E. M. (2003). Bilingual experimental data on relative clause attachment preferences. Chapter 6 in *Bilingual sentence processing: Relative clause attachment in English and Spanish* (pp. 161-209). Amsterdam: John Benjamins.

Forster, K. I. (1979). Levels of processing and the structure of the language processor. In W. E. Cooper & E. C. T. Walker (Eds.), *Sentence processing: Psycholinguistic studies presented to Merrill Garrett* (pp. 27-81). Hillsdale, NJ: Erlbaum.

Metz, D. E., Caccamise, F. & Gustafson, M. S. (1997). Criterion validity of the language background questionnaire: A self-assessment instrument. *Journal of Communication Disorders*, 30, 23-32.

- Mitchell, D. C. (2004). On-line methods in language processing: Introduction and historical review. In M. Carreiras & C.E. Clifton, Eds., *The on-line study of sentence comprehension: Eyetracking, ERP and beyond*. Brighton, UK: Psychology Press.
- Norris, J. M., & Ortega, L. (2001). Does type of instruction make a difference? substantive findings from a meta-analytic review. *Language Learning*, 51(supplement 1), 157-213.
- Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50(3), 417-528.
- Thomas, M. (1994). Assessment of L2 proficiency in second language acquisition research. *Language Learning*, 44, 2, 307-336.
- Tufte, E. (1983). *The visual display of quantitative information*. Cheshire, CT: Graphics Press. (Mina Rees call no. QA276.3 .T83 1983)
- Tufte, E. (2003). *The cognitive style of PowerPoint*. Cheshire, CT: Graphics Press. ([www.edwardtufte.com](http://www.edwardtufte.com))

## Miscellanea

You will need to use specific software titles to carry out some of the planned homework assignments. If there is a particular title you don't have access to, please let me know. Be aware that some of these are available at dramatically reduced prices through the CUNY Portal ([www.cuny.edu](http://www.cuny.edu); you will need a portal ID to take advantage of this). Other software can be downloaded (as freeware) from the Internet.

We will use CUNY's Blackboard server to distribute materials for this class, to manage the submission and return of some assignments, and to keep track of grades. To access the Blackboard server:

- If you already have a CUNY Portal ID, login at <https://blackboard-doorway.cuny.edu>.
- If you don't have a CUNY Portal ID, go to the CUNY Portal, <http://www.cuny.edu>, and register.
- Check your Blackboard profile, to ensure that an email address that you check on a regular basis is the one that is listed.