# Speech Communication Research Group (Bradlow Lab Group)

## General Information & Guidelines

### AY 2014-2015

![Image](https://via.placeholder.com/150)

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Weekly Meetings

The Bradlow lab group meets weekly in Cresap 101 on Wednesdays, 10:30 pm – 12:00 noon

General meeting plan:

• Announcements
• Lab Projects update and plans
• Problems, suggestions and requests
• Skill tutorial or research presentation

For research presentations:

• Prepare about 10-15 slides so that we have ample time for discussion throughout the presentation
• Before getting into the current details, always remind everyone what your project is about (what is the fundamental question, what is the overall project design)
• We have a closed laptop policy during research presentations.

Meetings with Ann (ARB)

Lab group members can sign up for meetings with me on the SCRG google calendar. Available slots are indicated by the label “ARB available.” Please insert your name in front of this tag (e.g. change “ARB available” to “XXX – ARB available”). Please let me (ARB) know if you need me to open up more slots in any given week.

Lab Documents (Box)

Our weekly meeting notes and other important lab documents are available on Box. Please be sure to check this Box site regularly to keep track of our presentation schedule, current lab group members, progress on our current project, etc.

Mentor/Mentee Guidelines

(Adapted from a document by Matt Goldrick, summer 2012)

As your mentor for this project, I will:

• Provide you with resources to execute work. Depending on the nature of the work and the resources available, these may include:
  o Participant fees
  o Undergraduate research assistant support
  o Timely feedback and assistance on technical and intellectual issues
  o Assist with your professional development:
• Help fulfill any program requirements related to this project
• Pending empirical outcome of this work and related projects, I will help you:
  o Prepare a conference submission related to this work (and secure funding to attend conference if successful)
  o Produce a paper related to this research for journal submission

As a mentee on this project, I expect you to:
• Be committed to the project:
  o Be mindful of project deadlines
  o Insure procedures (experimental, analytic, human-subjects related) are followed
  o Maintain detailed records; back-up all data
  o Be intellectually committed—review literature I provide to you, seek out new work

• Be a collaborative researcher:
  o Share your insights and issues with others
  o To facilitate this: Spend regular time in the office and attend all lab meetings

• Communicate:
  o Be accessible; answer emails promptly
  o Promptly advise me of any issues (intellectual, practical, personal) that affect your work

Paper submitting protocols
• Follow APA style (http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx). This includes (but not limited to) the following points:
  o title page and abstract
  o Double spaced (not 1.5)
  o 1 inch margins all around with page numbers in header or footer
  o Introduction, Methods, Results, Discussion (with subsections as needed)
  o References must be complete and include all and only citations in the text

• Use track changes and respond to all comments in the document, until we both agree that the document is ready for a “clean” start (usually by saving as a new version while keeping previous rounds of revision still available for reference in a separate document).

• All figures and tables must have captions and look professional (preferably inserted in the text rather than at the end)

• Some points about academic writing style (distinguish from spoken language):
  o Avoid “weak” verbs e.g. do, make, use, be. Instead use verbs with real content. Compare these two pairs of sentences:
    ▪ “This was done to ensure an equal balance of high and low predictability sentences.” vs. “This ensured an equal balance of high and low predictability sentences.”
    ▪ “This study uses sentences that have not previously been tested.” vs. “This study tested novel sentences.”
  o Be sure to follow all agreement rules. (What’s wrong with, “Each participant entered their response by clicking on the appropriate button on the button box”?)
  o Use past tense whenever reporting things that actually happened in the past, such as results, setting up of procedures etc. Compare “Subjects in condition A performed better than subject in condition B.” vs. “Subjects in condition A perform better than subject in condition B.” Which is making a stronger (too strong) claim?

Reading for writing (reading is the best way to improve your writing)
• Read 5 journal articles a week.
• Keep track of what you read (Endnote, Mendeley or similar)
• Sign up for journal alerts.
Procedures for pre- to post-candidacy transition

The Graduate Handbook is the ultimate authority on all graduate student policies and procedures. These guidelines reflect my own personal preferences; however, any inconsistencies with information in the Graduate Handbook are unintentional and are over-ridden by the handbook.

Committee selection
1. All committee members should be given a pre-proposal at least one week before the deadline for admission to candidacy. The pre-proposal does not have to be detailed, but it should include:
   • Title
   • Proposed committee members
   • Specific Aims of the project (A few sentences that lay out the general, hypothesis-driven goal)
   • Research Plan (This can be just a bulleted list of proposed experiments. For each, experiment, give a rough outline of the research question, subjects to be recruited, procedure, and analysis).

All of this should fit onto as little as 1 page, and certainly not more than 2 pages.

2. Committee members should receive an email in which the committee member responsibilities are specified as follows.
   • Attendance at four meetings:
     o the proposal meeting,
     o an interim meeting at some point between data collection and dissertation writing up,
     o a private final defense meeting,
     o the public defense.
   • Two hours should be budgeted for each of these meetings.
   • For the proposal meeting and the private defense meeting written documents (proposal and final dissertation, respectively) will form the basis of the discussion. These documents require review by committee members before the meetings and therefore should be received by committee members two weeks in advance of the meetings. The versions received by committee members should have already been through rounds of revision with the primary advisor.
   • The interim meeting and the public defense will revolve around presentations that will not need prior review by committee members.

Dissertation proposal meeting
1. No less than 2 weeks before the meeting date, the student sends the proposal document to the full committee.
2. A 2-hour time slot should be scheduled by the student for the proposal meeting in a room with a computer projector and screen.
3. The meeting begins with a presentation by the student. This presentation should be around 20 minutes long (about 20 slides), and should give an overview of the theoretical context for the project as well as an outline of the proposed experiments and analyses.
4. The discussion will focus on the motivation for the project as well as on the details of the experiments.
5. The meeting ends with a private discussion amongst the committee members followed by recommendations for the student.
6. Within about 1 week of the meeting, the student sends around an addendum to the proposal with a summary of the discussion and a list of important changes to the project plan.
7. The chair of the committee reviews this addendum for final approval of the proposed project.
Authorship Guidelines

These guidelines are adapted primarily from:
Creating An Environment for Responsible Conduct of Research, Julie A. Washington, Lessons for Success, 2008 (a powerpoint slide show given to me by Lauren Calandruccio from an ASHA symposium). This document cites:

An additional useful resource is:
Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty, Based on the BWF-HHMI Course in Scientific Management for the Beginning Academic Investigator, © 2004 by the Howard Hughes Medical Institute and Burroughs Wellcome Fund.

According to the International Committee on Medical Journal Ethics (ICMJE), whose guidelines for responsible authorship represent the current state of the art in publication ethics, “each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content” and “one or more authors should take responsibility for the integrity of the work as a whole, from inception to published article.”

Specifically, the following 3 conditions for authorship shall be met by each potential author:
• Substantial contributions to conceptualization and design of the study, or acquisition of the data, or analysis and interpretation of the data;
• Substantial contributions to the writing of the manuscript or critical revision of the manuscript for important intellectual content; and,
• Substantial contributions to the approval of the final version to be published.

All 3 conditions must be met in order to recommend authorship on a given manuscript.

The first author is responsible for:
• Writing the manuscript;
• Revising the manuscript and corresponding with the journal or publisher, although note that in some particular instances the first author may not necessarily be the corresponding author;
• Obtaining approval of all coauthors on the final draft; and,
• Understanding the general principles of all work included in the manuscript.

Authorship agreements may be renegotiated under the following circumstances:
• Substantial re-writing of the first author’s manuscript is necessary;
• More than 6 months has elapsed and the manuscript has not been completed and submitted to a journal or publisher in a timely manner;
• First author does not demonstrate sufficient knowledge of the general principles of the manuscript topic, and there is another team member who has such knowledge.

Individuals shall not be given authorship credit solely for:
• Collection of the data
• Statistical analysis of the data
• Data input

Acknowledgement on papers and presentations
• For all papers and presentations from the SCRG, include the following acknowledgements:
• All RAs and/or students who helped with data collection and who are not listed as co-authors
• Technology Consultant, Chun Liang-Chan (Chun’s contributions are critical for absolutely all of our projects)
• My NIH Grant which should be acknowledged as follows (exact wording): “Work supported by Grant R01-DC005794 from NIH-NIDCD.”

VAULT
For a VAULT account, submit a request through the following link (NU netid required):
http://www.it.northwestern.edu/research/adv-research/hpc/vault/secure/vault-account-request.html?sunwMethod=GET
Then, see me (ARB) for access to Speech Communication Research Group files.

Experiment Running Guidelines
It’s good to arrive about 15 minutes before the subject’s scheduled time so as to have a chance to get everything ready. You will want to:
1) Have any papers needed for the experiment out, such as directions or answer sheets. DO NOT put out debriefing forms, you do not want the subject knowing the details of the experiment before they have taken it.
2) Set up the computer.
3) Set up NUsubDB.
4) Go to Screening Survey online (bookmarked on lab browsers).

Before the subject arrives:
1) The computer
   • -Login to the computer booth(s) you will be using with your netID and password.
   • -On the desktop open the folder for the experiment you will be running.
4) NUsubDB
   • -Go to Windows menu, click run, type http://babel.ling.northwestern.edu/nusubdb2/
   • -Login with your nusubdb username and password (this password is not necessarily the same as your usual one). Select the experiment you want to run.
   • If an experiment has both paid and credit subjects, be sure to select the appropriate consent form from the drop-down menu.
   • -On the left hand side click “Subject”, the “New Subject” tab should be the default next screen. Type in only the subject’s code.
When the subject arrives:
- Try to know the subjects’ first names so you can “greet” them at the door when they come in.
- Have them silence cell phones, leave their stuff outside the booth. There are hooks for their jackets and backpacks.
- Seat them in the appropriate booth, and have them fill out the consent and NUsubDB, remind them:
- DO NOT press the back or logout buttons. This is true both from the back button on the bottom left and top of the right of the browser. Both will make the subject lose all the data and need to start over.
- Tell them there will be a series of pages with questions, and at the end it will say “Questionnaire complete”, they should press “Submit” and notify you that they are finished.
- Hand them any instructions, let the subject read it through and then ask them if they have any questions.

While the subject is running/when they are done:
- At this point, take a breather, you can assign them their credit on Experimetrix because after they finish, they are much more amenable when you tell them you have already posted their credit on Experimetrix.
- Login to NUsubDB and go through their questionnaire. Choose “No” for “Jump to experimenter questions” and “Yes” for “Enable skip logic”. Make sure they satisfy your experiment’s language requirements and that they do not have speech/hearing impairments.
- When they are finished, give them the debriefing sheet, tell them their credit has been assigned.
- Offer them an exit card (located in the experiment drawer) that contains the experiment number and that they’re free to go.

After the subject leaves:
- Set up for the next experiment if you need to.
- Upload your data to Vault.
- Update the experiment’s subject tracking sheet (if available).
- Under “Remarks” add anything you feel is important.

Subject privacy protection
Some extremely important considerations:
- An individual's participation in any experiment is a piece of information that must not be accessible to anyone outside of our research group.
- Under no circumstances can a participant's unique identifying info (name, DOB) ever be listed in a file with his/her data. Data files should list participants by lab-internal alphanumeric strings only. These identifiers should be linked to identifying info through an NUsubDB-based lookup table. Demographic information can, of course, be listed with data points since they factor into our analyses but great care should always be taken to do this in a way that conceals the person's unique identity.
- Any file with subject names or other identifying information should not be stored on servers or personal computers that are outside of the NU netid-protected system. This includes dropbox, google docs OSCAAR, etc.

Consent forms
We now use electronic consent forms with waiver of documentation of consent as part of the NU-subdb registration and questionnaire completion process. All subjects must be presented with appropriate consent
forms (by going through NU-subdb) each and every time they come into the lab for a new experiment. Please be absolutely sure that you are using the correct forms and NU-subdb project. If you are unsure which forms or NU-subdb project to use, ask someone!

**Participant recruitment portal**

- Public facing website for potential subjects who wish to be contacted about experiments: [http://speechresearch.northwestern.edu/](http://speechresearch.northwestern.edu/)
- Internal URL for responding to subjects who have filled out the public facing website: [https://babel.ling.northwestern.edu/LingExperimentSignUpAdmin/index.html](https://babel.ling.northwestern.edu/LingExperimentSignUpAdmin/index.html)

**Special notes for paid subjects**

Note well: According to NU policy (see page 13 of this document, [http://www.northwestern.edu/financial-operations/policies-procedures/policies/travel.pdf](http://www.northwestern.edu/financial-operations/policies-procedures/policies/travel.pdf)), cash advances must be $350 or more. If you plan to spend less, you have to pay out of pocket and then submit an expense report for reimbursement.

After running the experiment:

- Pay each subject at a rate of $10/hour (.5 hr = $8; 1 hr = $10, 1.5 hr= $15, 2 hrs= $20 etc.)
- Have the subject sign a receipt (downloadable from Blackboard site).
- Inform Irene of how much money you need at least 2 weeks prior to when you need the money.
- NB: All paid subjects must fill out a receipt and all money must be accounted for at all times. Michael has an excellent system in place for this that should be kept up to date at all times. Any missing money (in the form of cash, receipts or "in the bank") will have to be replaced by the responsible party.

**Receipt guidelines**

-Researchers should use 'paid subject' consent forms for all paid subjects, not 'credit'. If we are ever audited, consent forms and receipts must match.
-Receipts should be filled out for every paid subject (available at [http://groups.linguistics.northwestern.edu/speech_comm_group/documents/receipt.pdf](http://groups.linguistics.northwestern.edu/speech_comm_group/documents/receipt.pdf))
-Receipts need to have the following:
  - Subject's printed and signed name
  - The date the subject was paid (be careful to put the correct year)
  - The amount the subject was paid
  - The experimenter's signature (that is, the person who actually paid the subject. Not the PI or first author of the experiment)

-Receipts should not contain crossed out signatures, names or payments (e.g., crossing out "$10" and writing "$15" above it)

-If you make a mistake in writing a receipt, cross out the current receipt and write 'void' on it. Then, rewrite the receipt in full to ensure no receipt is erroneously counted twice. The easiest way to avoid having to track down a subject for a signature is to fill out the receipt beforehand and then have the subject sign/print their name and date the receipt.

-If you are given cash for subject money, near the end of the term you will be responsible for turning in to the lab financial coordinator: 1) all receipts from subjects and 2) any leftover cash. These two components must add up to the original amount you were given. For group projects that have multiple people running subjects, all members are responsible for the cash and receipts, not solely the person under whose name the cash was
received.
-Sometimes you may have to front your own money if a cash advance runs out more quickly than we can open a new one (Remember: it takes approximately 2 weeks for a cash advance to be approved and deposited). If this happens, tell the lab financial coordinator immediately and turn in the receipts that only reflect money you have fronted from your own personal funds to ensure that you are reimbursed quickly and accurately.
-If you have finished running paid subjects, you are of course free to turn in receipts and leftover cash at any time to lab financial coordinator. Announcements will be made well in advance when receipts are due.

-Finally, if you ever need to check the status of current cash advances from which you have received subject money, you can visit https://babel.ling.northwestern.edu/bradlowca/ and log in with your netID and password. It will display all current transactions and the available current funds.

**Undergraduate Research Assistant Guidelines**

**Prerequisite**

All UG RAs in the Speech Communication Research Group (SCRG) are required to have taken Ling 250 (Sound Patterns in Human Language) with a grade in the A range.

**Initial requirement**

All UG RAs in the Speech Communication Research Group (SCRG) are required take the web-based course on the responsible conduct of research (online RCR Training Program) that can be accessed from the NU IRB web-site: http://www.research.northwestern.edu/oprs/irb/education/.

**Ling 399 registration**

- Typically, undergraduate research assistants start out in the lab by registering for an independent study credit with me (Linguistics 399).
- This registration should be on a P/N basis (no letter grade possible). A “P” grade will be awarded unless a significant problem arises, such as failure to show up for appointments, persistent errors of negligence and/or carelessness, uncooperative attitude, or any other problem that obstructs progress on a lab project.
- The work for this credit involves a commitment of approximately 10 hours of lab work per week, although this is negotiable and we can have some flexibility around this depending on scheduling constraints and work availability.
- Tasks include testing research participants and entering data under the supervision of a graduate student and/or our project coordinator.
- Schedule permitting, RAs should attend our weekly lab meeting (10:30 am – 12 noon on Wednesdays).
- Following the first quarter of Ling 399 credit, if all is going well and provided there is sufficient work and funding, it may be possible to continue as a paid RA.

**Paid RA position (following at least 1 quarter of successful Ling 399)**

- Following the Work-Study program guidelines (whether the RA is Work-Study eligible or not):
  
  Job Title: RESEARCH AIDE 3
  Job Code Number: 100074
  Work-Study Pay Grade: 75 ($7.50 - $9.90 per hour)
  Duties may include performing complex research tasks under the general direction of a supervisor; data analysis and interpretation, or statistical analysis; and conduct interviews.
  Desirable Qualifications: Junior or Senior; department major preferred; two years experience preferred,
at least one year within same department required; computer experience, analytical skills, and ability to work with little supervision required.

- If possible (given Work-Study program rules) RAs start at $10/hour.
- During the academic year, we aim for 5-10 hours/week for each of the 10 weeks of the quarter, for a maximum of 100 hours/quarter.
- During the summer, we aim for 250-300 hours distributed over the summer weeks with some flexibility. Summer RAs are asked to be available during ISI (month of August).
- The RAs work schedule is worked out in consultation with the other group members with whom she/he will work (typically graduate students, postdocs and/or research associates in the lab).
- One of the work hours is attendance at the weekly group meeting which is always at 10:30 am – 12 noon on Wednesday during the academic year. If the RA can’t make this meeting during a specific quarter, then separate meetings with the relevant work team, will be arranged as needed.
- The remaining hours are to be spent on assisting with subject running, data entry, record keeping, transcription of recordings, acoustic analysis, data analysis, etc. (to be explained by the team leader).